

Northumbria Research Link

Citation: Spaa, Anne Fleur (2022) Understanding the role of design in supporting reflective practice in evidence-based policymaking. Doctoral thesis, Northumbria University.

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/id/eprint/49196/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

Understanding the role of Design in supporting reflective practice in evidence-based policymaking

Anne Fleur Spaa

A thesis submitted in fulfilment
of the requirements of
the University of Northumbria at Newcastle
for the award of Doctor of Philosophy

Research undertaken in the
Faculty of Arts, Design and Social Sciences

June 2021

Abstract

Designers have an increasing understanding of the social and ethical responsibilities of practicing product design and are venturing outside of their traditional domain of product development into traditionally non-Design domains. In doing so, they have become concerned with addressing social problems and have led some designers to aim to influence the setting of public agendas by getting involved in policymaking.

In this thesis, I investigate the role of Design in policymaking and policy design practices in UK Government. Whilst Design literature addresses epistemological differences between Policy- and Design-oriented approaches, Policy literature emphasises a neglect by the Design discourse of the constraints of UK Government. Positioned at the intersection of Policy and Design, I research the *practical act* of designing policy within Government in order to bridge these perspectives and focus, in particular, on how these tensions meet at the nexus of evidence and decision-making practices.

Through three qualitative studies, I collected reflections from professionals working in and around policy design about the role of Design-oriented approaches within these practices. I found that: 1) policy informers mediate an interactive dialogue between research and policy; 2) policy designers facilitate an alternative approach to policy design which mobilises reflective practices of Design; and 3) policy teams negotiate between Design- and Policy-oriented perspectives as they take a generalist approach to idea development. Informed by these findings, I identified three roles in which designers may contribute to policy design practice: As human-centred specialist advisors, as speculation experts in addressing disruptive policy issues, and by facilitating reflective practices.

Firstly, when designers aim to inform policy with knowledge and outcomes of design research, this may be done effectively in the role of Policy Advisor positioned outside of the policy team. For this, it is important designers develop strong communication skills that meet the expectations of a policy audience. These should highlight a recognition by designers of their agency in processes of developing human-centred policy design advice.

Secondly, working alongside policy teams, designers can contribute their exploratory and generative practices to facilitate processes around public issues that are likely to disrupt existing policies. As an approach alternative to evidence-based policymaking, these practices may need to be legitimised through formal recognition by Government, requiring designers to engage with the design of bureaucratic and administrative procedures.

Thirdly and arguably the most noticeable contribution of Design is its reflective practices, which thus far have been engaged with implicitly. To leverage this contribution to Policy, it should be made explicit that the supposedly unexplainable *designer mindset* actually describes characteristics of the reflective practitioner. Anchored in Government's processes, recognising this practice may support policymakers effectively in moving back and forth between problem identification and solution proposition, and aid policymakers in their ability to acknowledge their agency in design processes.

Overall, I argue Design will be most influential in mediatory roles that go beyond its human-centred remit and which are embedded in bureaucratic and administrative structures that organise policy design processes in Government. I suggest directions for future research into how designers may engage with Government in formalising Design-oriented practices and making them part of Government's procedures.

List of Contents

Abstract	ii
List of Contents.....	iii
List of Figures	ix
List of Tables	x
Publications from this thesis	xi
Acknowledgements	xii
Author's Declaration.....	xiii
Part 1: Background	1
Chapter 1 Introduction.....	2
1.1 Key terms and visual overview of thesis	5
1.2 My motivation for this thesis	9
1.3 Designers' turn to social problem-solving.....	12
1.4 Design for Policy.....	14
1.5 Research focus	16
1.6 Aims, objectives and research questions	18
1.7 Thesis structure	20
1.8 Contributions	23
Chapter 2 Literature Review.....	26
2.1 Knowledge in policy design	30
2.1.1 Characteristics of 'evidentiary' knowledge.....	30
2.1.1.1 Generalised and situated representation.....	31
2.1.1.2 Causal and speculative approaches to temporality	33
2.1.2 Role of evidence in policy design.....	36
2.1.2.1 Policy design as a scientific and design practice	37
2.1.2.2 Epistemology and culture of policy design.....	39
2.2 Analysis and synthesis approaches to policy design	41
2.2.1 Approaches to problem and solution processes in designing policy	41
2.2.1.1 Iterating and prototyping in policy design	43
2.2.1.2 Co-evolving problem and solution in policy design.....	46
2.2.2 Power structures in approaches to policy design.....	49

2.2.2.1	Human- and policy-centred validation in policy design	49
2.2.2.2	Co-creative evaluation in policy design	52
2.3	Balancing Policy and Design within policy design	55
2.3.1	Innovating organisational cultures	56
2.3.2	The meaning of Design in policy	58
2.3.2.1	Public Sector Innovation Labs.....	60
2.3.2.2	Collaboration of Policy and Design in policy design	63
2.4	Conclusion.....	65
Chapter 3	<i>Methodology</i>	68
3.1	Philosophical approach	68
3.1.1	Reflexivity, interpretivism and the researcher as instrument.....	70
3.1.2	Experience, situatedness and the importance of context.....	72
3.1.3	Approach to complexity.....	73
3.2	Research design.....	74
3.2.1	Research methods	75
3.2.1.1	Study one: Semi-structured interviews	75
3.2.1.2	Study two: Participant observation	77
3.2.1.3	Study three: Graphic elicitation method.....	80
3.2.2	Data collection	84
3.2.2.1	Triangulation.....	85
3.2.3	Data analysis	86
3.2.3.1	Data analysis phases.....	88
3.3	Ethical considerations	91
3.3.1	Consent for data collection.....	91
3.3.2	Data analysis	92
3.4	Conclusion.....	93
Part 2: Fieldwork	95
Chapter 4	<i>The role of Design in informing policymaking</i>	96
4.1	Background	98
4.2	Study 1 approach.....	98
4.2.1	Defining participant sample.....	98
4.2.1.1	Think tanks.....	99

4.2.1.2	Human-Computer-Interaction.....	100
4.2.2	Research method	102
4.3	Data collection and analysis	102
4.3.1	Participant recruitment	103
4.3.1.1	Think tank participants	103
4.3.1.2	HCI participants	104
4.3.1.3	Consent	105
4.3.2	Interview structure	106
4.3.3	Data analysis	106
4.4	Findings.....	107
4.4.1	What is recognised as evidence in policymaking.....	107
4.4.2	Communicating evidence for policymaking.....	108
4.4.2.1	Making evidence visible for policymaking.....	108
4.4.2.2	Making knowledge relevant for policy	109
4.4.2.3	Different levels of detail at different policy stages	111
4.4.3	Using human-centred approaches to inform policy	113
4.4.3.1	Introducing human-centred narratives into policy advice	114
4.4.4	Developing future scenarios to inform policy	116
4.4.4.1	Structured processes to ensure legitimacy of future scenarios for policy.....	117
4.4.4.2	Exploring alternative scenarios to anticipate potential policy futures	119
4.4.4.3	Using speculative Design methods to visualise futures	120
4.4.4.4	Scrutiny and evaluation	121
4.5	Summary of findings.....	122
4.5.1	What is recognised as evidence in policymaking.....	122
4.5.2	Communicating evidence for policymaking.....	123
4.5.3	Using human-centred approaches to inform policy	123
4.5.4	Developing future scenarios to inform policy	124
4.6	Conclusion.....	125
Chapter 5	<i>Design-oriented methods to facilitate and research policy design processes</i>	
	128	
5.1	Background	130
5.1.1	UK Policy Lab and the Open Policymaking Toolkit	131
5.1.2	Lucy Kimbell’s 2015 ethnography of UK Policy Lab	132

5.2	Study 2 approach	133
5.2.1	Research method	134
5.3	Data collection and analysis	134
5.3.1	Fieldnote taking and gathering visual material	136
5.3.2	Interview structure	136
5.3.3	Data analysis	137
5.4	Findings	139
5.4.1	Facilitating reflective thinking to craft flat hierarchies.....	141
5.4.1.1	Reflecting on persona descriptions to surface assumptions, biases and gaps in knowledge	142
5.4.1.2	Making a difference in knowledge and expertise explicit through evidence safaris	146
5.4.2	Evaluating prototypes to reflect on policy ideas	149
5.4.3	Reflecting on policymakers’ experiences to open up debate around policy design processes	152
5.4.3.1	Designing visualisations to open up a discussion around policy design practices	156
5.5	Summary of findings	158
5.5.1	Facilitating reflective thinking to craft flat hierarchies.....	158
5.5.2	Evaluating prototypes to reflect on policy ideas	159
5.5.3	Reflecting on policymakers’ experiences to open up debate around policy design processes	160
5.6	Conclusion	161
Chapter 6	<i>Idea development in policy design processes</i>	164
6.1	Background	166
6.2	Study 3 Approach	167
6.2.1	Study participants and recruitment.....	168
6.2.1.1	Consent.....	173
6.2.2	Research method	173
6.3	Data collection and analysis	174
6.3.1	Interview structure using graphic elicitation	174
6.3.1.1	The start of the interview	175
6.3.1.2	Introduction of the session materials.....	175

6.3.1.3	Semi-structured interviews with senior civil servants	183
6.3.2	Analysis	184
6.4	Findings.....	186
6.4.1	Synthesis practice of policy teams.....	190
6.4.1.1	Gathering specialist policy advice	191
6.4.1.2	Building a detailed understanding of the impact of a policy idea.....	195
6.4.2	Refining and negotiating in policy idea development	199
6.4.2.1	Exploration in policy idea development	201
6.4.2.2	Iteration in policy idea development	205
6.5	Summary of findings.....	208
6.5.1.1	Outsourcing expert policy analysis to specialist advisors	208
6.5.1.2	Building a picture around the impact of a policy idea.....	209
6.5.1.3	Exploration in policy idea development	210
6.5.1.4	Iteration in policy idea development	211
6.6	Conclusion.....	212
Part 3: Discussion		215
Chapter 7 Discussion		216
7.1	Designers as human-centred specialist advisors.....	217
7.2	Designers as speculation experts in addressing disruptive policy issues.....	221
7.3	Contributing Design to facilitate reflective practice.....	224
7.3.1.1	Reflection-in-action to bridge intuition and rational decision-making	225
7.3.1.2	Reflection-on-action to conduct a frame analysis of policy design processes.....	227
7.3.1.3	Designing reflective practice into policy design processes	229
7.4	Conclusion.....	230
Chapter 8 Conclusion		233
8.1	Understanding the role of Design in supporting reflective practice in evidence-based policymaking.....	233
8.2	Addressing aims and objectives.....	235
8.3	Key findings.....	238
8.4	Contributions	240
8.5	Limitations to the research	242
8.5.1	Scope of the research	242

8.5.2	Data collection	243
8.5.2.1	Study 1	243
8.5.2.2	Study 2	244
8.5.2.3	Study 3	245
8.5.3	Data analysis	246
8.6	Final thoughts and directions for future work.....	247
References.....		250
Appendices.....		261
Appendix A	Information Sheet and Consent Form Study 1	261
Appendix B	Recruitment Emails Study 1	265
Appendix C	Interview Guide Study 1	268
Appendix D	Example of Memos for Study 1	272
Appendix E	Consent Form Study 2	273
Appendix F	Activities during Participant Observation Study 2.....	275
Appendix G	Information Sheet and Consent Form Study 3	277
Appendix H	Recruitment Email Study 3.....	282
Appendix I	Interview Guide Study 3	283
Appendix J	Detailed Participant Table Study 3	288
Appendix K	Scans of Populated Timelines Study 3	297
Appendix L	CHI 2019 Paper.....	305
Appendix M	Example analysis process Study 1	306
Appendix N	Example analysis process Study 2	319
Appendix O	Example analysis process Study 3	323
Appendix P	Ethics Application and Amendment Approval.....	332

List of Figures

Figure 1.1 Visual overview of the research context.	5
Figure 5.1 Policy Lab’s Double Diamond framework.....	132
Figure 5.2 Examples of persona descriptions.	143
Figure 5.3 Example of an evidence safari.	146
Figure 5.4 Examples of evidence cards.....	147
Figure 5.5 Photo of the consultation journey mapping tool by Policy Lab.	153
Figure 5.6 Visual overview by Policy Lab of government consultation processes.	155
Figure 5.7 The style of government action framework developed by Policy Lab.	157
Figure 6.1 Design of timeline template for Study 3. (Zoomed in version on the right.)	175
Figure 6.2 The visual metaphors of process steps stickers.	176
Figure 6.3 Visualising use of timeline in template for Study 3 interviews.	178
Figure 6.4 Visualising use of visual metaphors on timeline template.....	179
Figure 6.5 Visualising use of bottom half on timeline template for Study 3 interviews.	180
Figure 6.6 Visualising a drawing of an idea development line on a timeline template.	181
Figure 6.7 Visualising a completed timeline template.	182
Figure 6.8 Final result of pilot interview timeline completion.	183
Figure 6.9 Examples of participants indicating timeframes of policy design process.....	187
Figure 6.10 Examples of participant indicating key moments in policy design process.	188
Figure 6.11 Example of external teams to policy design process.....	191
Figure 6.12 Example of linking key moments with external influences.	193
Figure 6.13 Example of participants indicating approval structures on the timeline.	200
Figure 6.14 Visual representation by participant of making and evaluation processes.	202
Figure 6.15 Example of different strands of work in a policy design process.	210
Figure 8.1 Overview different layers to this doctoral research and thesis account.	236

List of Tables

Table 2.1 Table listing differences Policy and Design.....	59
Table 4.1 Summary table of participant sample.....	105
Table 5.1 Participant table Study 2. (Continued)	135
Table 5.2 Participant table Study 2.....	136
Table 6.1 Overview of interview and participant meta-data for Study 3.....	169
Table 6.2 Study 3 participant table.....	170
Table 6.3 Study 3 participant table. (Continued)	171
Table 6.4 Study 3 participant table. (Continued)	172
Table 6.5 My definition for the processes part of the Reflective Transformative Design Process....	177

Publications from this thesis

Spaa, A., Durrant, A., Elsdon, C. & Vines, J. (2019) 'Understanding the Boundaries between Policymaking and HCI', in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. [Online]. New York, NY, USA: Association for Computing Machinery. pp. 1–15.

(Appendix L)

Spaa, A., Spencer, N., Durrant, A., Vines, J. (2022) 'Creative and Collaborative Reflective Thinking to Support Policy Deliberation and Decision-making', in *Evidence and Policy* [Unpublished manuscript]. *Evidence & Policy*.

Acknowledgements

I would like to thank several people for their support. My supervisory team, existing of John Vines (Principal), Nick Spencer and Abigail (Abi) Durrant. Their supervision has been incredibly valuable. Joyce Yee and Lars-Erik Holmquist for being my internal panel during the annual progressions. In addition to John and Abi, I want to thank Chris Elsdén for his co-authorship on the CHI'2019 paper.

I want to thank the members of Co-Create who have provided me with feedback at several points throughout my research and the 'OGs' for the necessary *PhD freak-out* sessions. For their detailed proofreading, I want to thank Tom Gilbert and Jennifer Thomas-Davey.

Friends and family, thank you for offering your sympathetic ears.

Author's Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others.

Any ethical clearance for the research presented in this thesis has been approved. Approval has been sought and granted by the Faculty Ethics Committee on April 28th, 2018. An amendment has been approved by the Faculty Ethics Committee on April 8th, 2019.

I declare that the Word Count of this Thesis is 80,574 words.

Name: Anne Fleur Spaa

Signature:

Date: March 23rd, 2022

Part 1: Background

Chapter 1 Introduction

Over the last 20 years, researchers and practitioners in the discipline of Design have increasingly discussed the potential of Design to contribute to practices of policy making.¹ This has led to the development and implementation of Design-oriented practices in public policy making. Relatedly, governments across the world have been establishing public sector innovation labs (PSI-labs) to trigger changes in the ways in which policies are designed from within government organisations (McGann et al, 2018). Furthermore, in the United Kingdom (UK), Design consultancies such as Nesta, the Design Council, and IDEO are specialising in Social Design to inform government and public sector organisations.

Parallel with the exploration of Design in policymaking, since the turn of the century, the UK Government set out to develop *evidence-based policymaking* (EBPM) practices as its standard approach to making policy decisions. Core to EBPM is the conduct of and building on research at every stage of the policymaking process to (i) result in a policy document that explains and defends the decisions with evidence and (ii) describe the intended change triggered by that particular policy decision. (Oliver, Lorenc and Innvær, 2014; Stevens, 2011) Introduced by Tony Blair's 'New Labour' Government (1997-2007), EBPM was part of a process to modernise processes of governance and aimed to respond proactively to public concerns that much of the regulation and policymaking of previous governments was ideologically driven (Wells, 2017).

Discussions on what constitutes evidence have since received significant attention and reveal that transitioning to an evidence-based approach to policymaking does not come without tensions (McGann et al, 2018). Part of the critique is addressed through a more recent advocacy for *open policy making* (OPM) which argues for a wider range of knowledge and expertise to be introduced as evidence to policy making processes (HM Government, 2012).

¹ Both in practice and research there is a growing number of socially responsible Design strands such as *Design for Policy* and *Social Innovation*. The strand of *Social Innovation* has led to the international *DESIS* network. Rachel Cooper edited the book series '*Design for Social Responsibility*'.

In this 'open' approach to policymaking, Design practices are particularly relevant. Advocated by Design practitioners and researchers are discussions on how practices of policy decision-making can become more human-centred, introducing tools and methods focused on building empathy for the affected citizens and conducting forms of field research to gather evidence that helps to understand the experiences and behaviours of citizens in relation to specific public problems.² Simultaneously, a parallel discourse discusses whether or not Design methods meet the needs of Government's practices, emphasizing the importance of already existing discussions within the Design discipline such as the issues of applying Design methods at scale (Clarke & Craft 2019; Yee et al, 2016). As such, the ways in which such new practices for policymaking could sit together with conventional approaches are of increasing interest to both researchers from Design and Policy. This has led the *Design for Policy* discourse to develop as a strand of work that sits at the intersection of the Policy and Design domain.

This thesis engages with these emerging discourses at the intersection of Policy and Design, and the remainder of this introductory Chapter will further contextualise how it has informed structure and focus of this thesis. To begin, however, this Chapter will next introduce the key terminology used throughout the thesis (Section 1.1).

In Section 1.2, I detail my motivation for this doctoral research coming from my interest in Design as a strategic practice, the decision-making practices of designers, and the overlap between future-oriented methods of designers, the foresight practices of think tanks, and the role of government and politics in public decision-making.

Section 1.3 describes the *social turn* in Design to introduce how designers developed practices that can be applied in traditionally non-Design disciplines. As designers expanded their field of application, their methods have not only been used to design products but furthermore services and processes. As such, from being a closed expertise of creativity, central approaches to Design practices now focus on enabling multi-disciplinarity and participation.

² Coinciding with the development of evidence-based policymaking are frameworks such as the UK's Research Excellence Framework (REF) have been set up to assess the impact of academic research to society. This has meant that academic Design scholars are put under [increasing] pressure to disseminate their work beyond their immediate research community. As such, informing policy with the insights gained and knowledge gathered through their research activities is seen as a keyway of translating research into practice.

Section 1.4 focuses on introducing the *Design for Policy* discourse central to my research. I reflect on opportunities and challenges for Design in policymaking practices identified by researchers in Design. I identify a redirecting of the discourse from problematising and challenging policy practices towards a more balanced discourse that calls for collaboration between Policy and Design in order to progress existing policy design practices in government.

In Section 1.5, I describe the focus of my research that set out to build a bridge between the Design and Policy discourses in *Design for Policy* by investigating the professional practices of those working in and around policy design. I argue my decision to collaborate with policy informers, policy designers and policymakers to gather insight from multiple perspectives into the decision-making and evidence practices in policy design. Lastly, I introduce the choice for a UK-focus in my research.

Then, in Section 1.6, I introduce the research questions guiding my doctoral work and describe the aims and objectives of the doctoral work. I describe the focus of this research on understanding evidence and decision-making practices in policy design and introduce the questions guiding the research. Subsequently, I provide an overview of the thesis structure in Section 1.7. In Section 1.8, I conclude this first Chapter with a summary of the contributions of this thesis.

1.1 Key terms and visual overview of thesis

There are several key terms that are used frequently in this thesis account. In this Section, I introduce and define these terms for the purposes of my argument and to position my understanding in relation to the extant use of these terms. I also introduce a visual to give an overview of how the different participant groups of the Studies relate to the context of policy design (Figure 1.1).

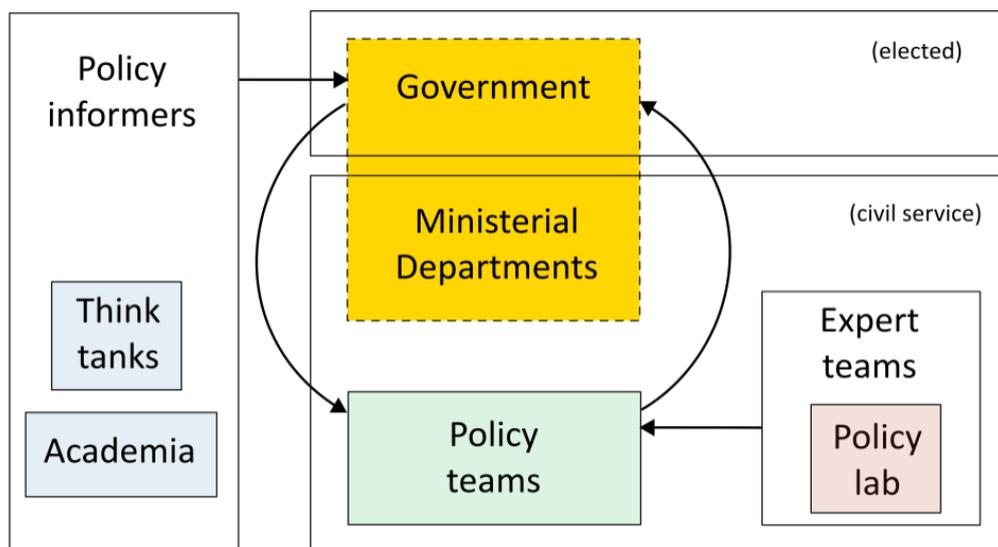


Figure 1.1 Visual overview of the research context.

Participant groups of each Study and their relation to the policy design context. Blue: Study 1 (Policy informers), Red: Study 2 (Policy designers), Green: Study 3 (Policymakers).

Policy

I understand *Policy* as a means for governments to respond to and address public problems and problems that concern the public. When I refer to policy this does not specify the form of the government intervention. Governments employ a wide range of interventions that are argued for in a policy.³

Policy design

Throughout this thesis, I refer to *policy design* as an umbrella term for the phases of policy work that I aim to understand in order to identify how methods from Design

³ In 2017, Design commentator Andrea Siodmok discusses an overview of different modes of action that government can take (Siodmok, 2017).

research may contribute to them. I use the term policy design to address phases of policy processes that are concerned with agenda-setting (scoping), formulation and decision-making. (For the purpose of this thesis, policy design is defined by excluding the work of professionals on how to implement policies, including service designers, user research and other Design roles.⁴) To define the general foci of these phases, I derive a descriptive overview of three general phases in policy design from Howlett, Ramesh and Perl's 2009 book on the theoretical and analytical framework of political sciences:

Policy formulation refers to the process of generating options on what to do about a public problem. In this second phase of the policy process, policy options that might help resolve issues and problems at the agenda-setting stage are identified, refined, and formalised. An initial feasibility assessment of policy options is conducted at this stage of policy development, but these formulation efforts and dynamics are distinct from the next stage, decision-making [...], where some course of action is approved by authoritative decision-makers in government. (Howlett, Ramesh and Perl, 2009, p110)

Overall, in my understanding of *policy design*, activities of agenda-setting, formulation and decision-making are grounded in evidence and decision-making practices. The excerpt by Howlett, Ramesh and Perl highlights to me how these practices take place across the different phases of policy design. Throughout this thesis, I identify nuances of evidence and decision-making practices in policy to inform insights and recommendations on how Design may contribute to these practices.

Design

I capitalise *Design* to indicate the professional discipline of Design, differentiating the term from the verb *to design*. In doing so, I aim to distinguish between the activity of designing anything (such as a research study, or policy) and the specialism of Design that results from years of training. As Zimmerman, Forlizzi and Evenson state, this distinction extends to the use of the term *designer*:

In the [D]esign community, the term designer is generally used to refer to someone who has had training or extensive practical experience in a discipline such as architecture, product design, graphic design, or interaction design. (Zimmerman, Forlizzi and Evenson, 2007, p494)

⁴ A wide range of Design practices are integrated in policy implementation practices. Amongst others, service design, agile development and user research are of increasing importance to UK Government's service development. Important to note in the context of this thesis: Policy implementation may be considered not to be part of policy design practices. As such, whilst the integration of Design-oriented methods appears most prominent in this part of policymaking processes, it is understood to be out of the scope of this thesis.

As such, when referring to Design, I address the wide range of approaches, tools, methods used for problem-solving practices that are based on synthesis, iteration, and a process of convergence and divergence in which an understanding of problem and solution co-evolve. This includes practices developed as specific specialisms in *Design* such as service design, product design, social design, and interaction design.

Design-oriented

I choose to use the term *Design-oriented* to refer to the use of Design methods in traditionally non-Design disciplines. I understand methods and practices as *Design-oriented* when these introduce aspects to non-Design disciplines that are based on or informed, led, or inspired by methods and approaches used in the Design discipline. For example, I consider the use of personas a Design-oriented practice in policy design. Central practices to Design such as prototyping, iteration and reflection I consider to be *Design-oriented practices* when designers introduce these to policymaking practices.

Design for Policy

The strand of work, both in research and practice, that focuses on the use of Design-oriented methods in practices of addressing public problems through policy. The discourse is increasingly populated by scholars, practitioners and commentators from both Design and Policy fields.

Evidence

Knowledge⁵ to inform decision-making. In this thesis, I understand knowledge to become *evidence* when it is relevant to the issue that requires a decision. In other words, evidence is information relevant to the matter that requires a decision.

Decision-making

⁵ I understand knowledge as information gathered through research activities based on observation or experience. Knowledge can be generated and gathered, both as outcome of a process or in the process itself. Knowledge can be of different natures – e.g., qualitative, quantitative and tacit.

I understand *decision-making* as the strategic practice that is informed by values and knowledge central to the domain in which it takes place. Decision-making enables the moving forward of a process to reach its outcome.

Approaches to decision-making can be based on, for example, vertical or horizontal hierarchies and centralised or de-centralised structures.

Citizens

I choose to use the term 'citizens' to address individuals impacted by policy, rather than referring to individuals as 'users'. Whilst using the term 'citizens', in this thesis I include those individuals who are not considered citizens of the UK by law, such as residents without citizenship.

1.2 My motivation for this thesis

The background that informs and motivates this research is grounded in my interest to explore the richness of the Design field, and more specifically how Design can be used as a strategic practice. Trained as an industrial /interaction designer at Eindhoven University of Technology (TU/e), I came to know Design practice through its wide range of competencies. Core to this education was the understanding of ‘knowing in Design’ that is, conceptualising Design as a reflective and transformative practice to which numerous experiments and prototypes are central.

During my time at TU/e as a Bachelor student, I learned the value of human-centeredness, of applying phenomenological perspectives for understanding user experience, and of iterative Design, to design functional products for the wellbeing of individuals.⁶ During the Masters course, I took a placement as a visiting researcher at Simon Fraser University in Canada, where I further recognised Design as a research and *critical* practice, with artefacts functioning as vehicles for debate and carriers of knowledge to explore sociotechnical and ethical aspects of decision-making in Design. Research through Design, Constructive Design Research, and concepts of philosophy of technology, pragmatism, and post-phenomenology became part of my more methodological understanding of the field.

Through the Design work during my Masters, I explored notions of temporality, functionality, criticality and factuality whilst learning about the value of lived experiences to generate knowledge through Design(ing).⁷ I learned that Design processes were no longer just iterative cycles moving from problem to solution, but could, alternatively, be processes of evolving a problem and solution simultaneously through the continuous implementation of ‘what could be’ in the here and now.

My experience of and learning about the field of design research has always been closely related to technology. Due to my *University of Technology*-based training, I have always

⁶ During my BSc, I saw Design to give shape and function to technology to support and enhance our lives.

⁷ During my MSc, I used Design as way to explore the impact of technology on our lives.

understood Design as a practice giving form and function to technology.⁸ When starting to venture into Design as a research practice, this too got influenced by the close link to technology: I gathered knowledge and skill as a design researcher in the field of Human-Computer Interaction aiming to understand the socio-technical impact of Design.

Reflecting on this pre-doctoral journey, I recognised my interest in Design as a strategic professional practice as being longstanding. However, the outcomes from the Bachelor and Masters course – a series of Design interventions - felt small in scale and sometimes too simplistic and tactical to address complexities of the problems that I aimed to tackle. Afterwards, I felt motivated to be more *pragmatic* and aimed to make a more concrete social impact in future work, when strategically responding to complex problems. I learned that tensions around scale, rigour, and validity in Design research can be barriers to achieving impact. Whilst Design's forms of knowing and knowledge – within Design research – are considered to be valuable as they give detailed insight into the behaviours, experiences, and values of those for whom we are designing, our ability to disseminate Design knowledge and practices to inform large-scale decision-making seems to remain challenging. This incentivised me to better understand how Design knowledge may inform policy on the socio-technical impact of Design.

Moreover, in trying to understand myself as a Design professional, I saw how other designers were working in traditionally non-Design environments as service designers, design thinkers, innovators, and consultants. Simultaneously, I started recognising practices that I understood as Design in the world of other professions, e.g., foresight and political and organisational decision-making. Whilst Design, in my understanding, remained a profession of strategies for change and innovation both in its processes and outcomes, it was disconnected from the need to design products per se.⁹ I wanted to explore further the development of the Design professional as a strategic practitioner and, specifically, do so outside of the traditional Design domain, and where Design methods are confronted with issues of 'scale'.

⁸ Design is increasingly technology-based, as innovations such as Internet of Things and Artificial Intelligence are integrated into the design of user products, creating a multitude of smart and connected devices.

⁹ During this doctorate, I approached Design as a means to approach policymaking as a technology with a strategic role in our lives.

Given my personal interest in the role of politics and government (leading back to secondary school), and a curiosity towards the research, strategy and vision practices of think tanks to inform public decision-making, the domain of public policy attracted my interest. Informed by the vast range of think tanks that appear to influence UK-policy-making, and the influential work of UK-based researchers and practitioners to introduce Design methods to other professional domains, I chose to focus my doctoral research on the context of the United Kingdom (UK). This decision was reinforced by the extensive attention Design receives within UK Government.

1.3 Designers' turn to social problem-solving

In order to better understand the motivations for the *Design for Policy* discourse, in this Section, I introduce my understanding of the designer's turn to social problem-solving.

Over the last 30 years, Design has become an externally oriented¹⁰ and multifaceted profession spanning commercial, social and academic realms. This development appears to have come from an in-depth recognition of both the advantageous and the detrimental impacts of Designed artefacts, and the role of the designer in this. The understanding of a Designed artefact – be it a service, product, or infrastructure – is that it influences the context for which it was designed. An example given by UK-based Design academic Gaver illustrates this well:

When the original iPad was designed, for instance, tablet computers were not widely known or available. Now anybody seeking to research or develop tablet computers – or anything at all, for that matter – is designing for a different world, one in which the iPad exists. (Gaver, 2012, p943)

The acknowledgment of the social impact of decision-making in Design has led the domain to explore how to balance ideas of how to design for “*industrial production and the greater good*” (Mortati, 2019, p777). Consequently, the awareness of the behaviour-shaping aspects of Design has resulted in a growing investigation of the ethical, political, or sociotechnical impact of designers' work (Verbeek, 2006; Fry, 2010; Williams and Edge, 1996; Simonsen and Robertson, 2013; Lykketoft, 2016).

As such, over less than a century, Design has gone from a being understood as a domain concentrated on its material practices to one that includes social practices. Today, it is not only considered a designer's concern to innovate the material but also the social world (Chen et al, 2016; Crouch and Pearce, 2013; Forlizzi, Zimmerman, Evenson 2007; Mulgan, 2014).

In addressing social problems too, designers rely on their iterative practices that support experimentation and evaluation in order to understand a problem, and the impact of a

¹⁰“By the last years of that decade [1960s] consumer awareness had given rise to what became known as, variously, the ‘responsible’ Design movement or the ‘socially useful product’ debate. [...] Designers needed to be more outward-looking and to ponder the relationship of Design to society – its role and purpose.” (Whiteley, N., 1993. Design for society. Reaktion books. (p.94))

solution, as a whole rather than separate parts (Kolko, 2010). Designers' inventive and creative approaches to problem-solving, as such, go through a continuous framing and reframing of problem and solution. (Hummels and Frens, 2008) With Schön's notion of the reflective practitioner being adopted into Design practices, key strategies relied on reflection-in-action and reflection-on-action¹¹ to increase criticality in Design. (Schön, 1983; McDonnell, Lloyd, Valkenburg, 2004; Sengers et al, 2005; Hummels and Frens, 2008; Currano and Steinert, 2012; Dorst, 2015; Lloyd, 2019) Designers' offerings of mind- and skillsets based on their tangible and intangible tools and methods has been found to be useful in social, health, technology and business contexts (Buchanan, 2007; Zurlo and Cautela, 2013). These developments of the field's orientation led to Design consultancies and incentivised research done into the ways Design has been explored in and expanded into these realms.

The increasingly in-depth understanding of Design's problem-solving and decision-making practices continues to drive further expansion of the discipline stimulated by a need to demonstrate the value of Design approaches (Yee, Jefferies, and Tan, 2014). As part of the *social turn* in Design, designers are fostering and seeking a wide range of collaborations to represent a multitude of social perspectives throughout the Design process and understand the (speculative) impact of designs on the world they are (potentially) brought into. This has changed the role of Design professionals (Chen et al, 2016; Yee, Jefferies, & Tan, 2014). From being a closed expertise of creativity, Design practices now focus on enabling multi-disciplinarity and participation. For example, Tan identifies designers now operate as "*co-creator, researcher, facilitator, capability builder, social entrepreneur, provocateur, strategist*" (Tan, 2012, p299). With the growing range of methods and increasing extrapolation of Design, the designer has been presented as a versatile hybrid professional moving between forms of activism and facilitation (Manzini, 2013), as well as it has been able to step away from its traditional expertise designing physical artefacts (Lewis, 2020; McGann, 2018).

¹¹ Gardien et al define reflection-in-action and reflection-on-action as: "*Reflection-in-action refers to the ability of practitioners to directly and intuitively respond to a challenge by drawing upon their intuition and prior experiences. Reflection-on-action refers to the ability of practitioners to reflect upon their experiences afterwards and to analyse their reasons for and the consequences of their actions.*" (Gardien et al, 2012, p124).

Whilst the debates in Design for Social Innovation echo many of the aspects that motivate designers to engage in a Policy-oriented discourse (as will be introduced in Section 1.4), these parallel developments take different approaches to informing social problem solving. Many examples of Designs for social problems and social innovation do not engage with government but are developed as ground-up initiatives. The *Design for Policy* discourse, on the other hand, focuses on gaining insight into how Design can be introduced to government in order to influence the setting of and responding to public agendas. To keep this a clear distinction throughout this thesis, I talk about *public* problems in relation to the *Design for Policy* discourse instead of *social* problems. This is because not all policy issues are solely social problems.

In conclusion, Design's turn to social problem-solving has had a fundamental impact on the identity and vision of the field. As strategic Design scholars Cautela and colleagues explore different understanding of the meaning and processes of Design, they state that Design "*appears today as an open territory, in continuous expansion from a "solid" centre to much softer peripheral areas, characterised by a progressive overlapping with other disciplines.*" (Cautela et al, 2013, p4)

1.4 Design for Policy

Since the turn of the century, a transition towards evidence-based policymaking (EBPM) has been taking place in UK Government. Motivated by a need to make better informed decisions in order to develop policies that are more effective, policymaking priorities have become to gather and make sense of evidence to inform decision-makers (Head and Alford, 2015). In addition, there appears to be a desire to expedite current policy design approaches applied in UK Government in order to respond to the changing nature of public problems (Bason, 2009; Bason and Carstensen, 2012; Romme and Meijers, 2020).

Current tensions in UK Government's policy design practices have been voiced by a range of scholars and commentators across all levels of and perspectives on policymaking. Civil servants share their experiences of working on policy in blogs published on the website of UK-government, highlighting the challenges and opportunities they see in order to improve current practices (e.g., Reeve, 2017). The UK-

based think tank Institute for Government highlighted that policymakers are concerned “about their current performance and their readiness to meet future challenges” as “policy making is a machine which is not very effective” (Institute for Government, 2011, p16). And in 2012, the UK Government announced its Civil Service Reform that called for more collaborative practices in policymaking, incentivising amongst others an increase in cross-departmental policymaking and the involvement of a wider group of stakeholders in decision-making some of which may be external to government (UK Government Civil Service Reform, 2012; Siodmok, 2014a).¹² Over the last decade, as the UK Government has become increasingly focused on becoming a service provider, the integration of Design has seen a strong growth. At different departments and phases of the policymaking process, Designers from a range of specialisms – amongst others but not limited to Service Design, Interaction Design, Graphic Design - have started working across government (Downe, 2016; Siodmok, 2017).

With designers exploring previously uncharted territory, tensions within policy practices have led researchers to discuss the contributions that could be made by introducing Design. Designers have addressed specific challenges that policy makers are facing and proposed how Design practices could help overcome these. Major critiques coming from within the Design discipline focus on a perceived lack of testing of policy ideas and involvement of affected citizens and stakeholders to inform decision-making (Mulgan, 2014; Clarke and Craft, 2019). This allegedly prevents policymakers from developing a sufficient understanding of the complexities of a given policy issue. Consequently, the claim is, solutions proposed to address public problems are likely to result in an unsuccessful government response (Mintron and Luetjens, 2016; Kimbell and Bailey, 2017; Craft and Clarke, 2019). This discourse, which can be captured under the umbrella term of *Design for Policy*, initially predominantly led by Design academics and practitioners, focused on attempts to make policy design a human-centred, iterative, and generative practice (Van Buuren et al, 2020; Kimbell and Bailey, 2017; Villa Alvarez et al, 2019). In order to do so, designers aim at facilitating innovation in policy practices and outcomes through bringing affected citizens and stakeholders together

¹² In acknowledging the tensions within current policy design practices, the UK Government is part of a wider discussion around the challenges faced by civil services in the western world, often focused on changes need in the organisation and performance of these organisations.

into the process early on and encourage government to collaborate on policy projects that span multiple departments (Christiansen and Bunt, 2014). Much of this happens at the implementation phase towards the end of policymaking processes, with designers increasingly influencing how government services are designed (Vaz and Prendeville, 2019). Though, in order to start experimenting and testing earlier on in the policy design process, designers advocate for developing tangible and creative policy design practices that allow the understanding of policy problem and solution to evolve through several iterations (Mortati, 2019; Mulgan, 2014; Bason, 2016, Hermus et al, 2020; Mintron and Luetjens, 2016). This has led to the promotion of utilising design thinking, co-creation, and prototyping methods in policy design processes (Kimbell and Bailey, 2017; Villa Alvarez, 2019; Bason, 2009).

More recently, the arguments for radical change to policy design practices have received criticisms. From both Design and Policy perspectives, researchers have emphasised the need to understand the constraints and complexities of government when arguing for change. Rather than continuously challenging current practices, the use of Design methods in policy design should, consequently, be promoted in ways that reflect this awareness (Clarke and Craft, 2019; Bailey and Lloyd, 2016b; Hermus et al, 2020). This transition may be seen as a consequence of the growing number of Policy researchers that contribute to *Design for Policy* discourse (Hermus et al, 2020; Van Buuren et al, 2020). Overall, the discourse on *Design for Policy* is increasingly positioning itself at the intersection of the Design and Policy domain. Design scholars aim to better understand the circumstances in which policy and decision-makers operate and are starting to acknowledge the constraints and history of policy practices taking place in government (Mortati, 2019). These developments seem to indicate that *Design for Policy* is redirecting itself towards a collaboration between the Design and Policy domains in which a fusion of the two practices for policy design is envisioned (Clarke and Craft, 2019; Mortati, 2019; Bason, 2016).

1.5 Research focus

In this Section, I unpack the research focus of the doctoral work, to examine how Design could contribute to policy design practices at the nexus of evidence and decision-making, and the positioning of this research at the intersection of Policy and Design.

Design scholars and practitioners have foregrounded the 'problems' in current policy design practices. As part of this, EBPM as an approach to policy design has been problematised, as it is viewed as favouring macro scale and quantitative knowledge as evidence over the smaller scale and qualitative nature of knowledge which is typically generated through design research methods (Mortati, 2019). An emphasis of this part of the *Design for Policy* discourse lies in the "*conflicting beliefs*" that exist between Design and Policy (Bailey and Lloyd, 2016b; Kimbell, 2015; McGann et al, 2018; Bason, 2016). The presumption is that designers operate from an intuitive mindset focused on generating knowledge through doing; contrasting with this are, it is argued, current policy design approaches which rely on a rational mindset focused on gathering existing knowledge to inform decisions. As a consequence, McGann and co-authors - whose research focuses on public policy research organisations in the United States - argue the "*growing interest in evidence-based policymaking and the application of 'design thinking' to policymaking*" seem to "*sit uncomfortably together*" (McGann et al, 2018, P251).

Nonetheless, researchers increasingly position their publications at the intersection of the two disciplines in order to better understand the contrasts between the Design- and Policy-oriented views (Siodmok, 2020a; Mortati, 2019). Instead of focusing on contrasts between the two fields, progressing the discourse appears to focus on researching the potential of a fusion of Design and Policy in policy design. With the aim of contributing to the progress of the *Design for Policy* discourse, this thesis and doctoral research responds to – amongst others - Mortati's call to conduct research at the intersection of Design and Policy (Mortati, 2019).

The emphasis on the epistemological divergence of Policy and Design arguably falls short in acknowledging the *practical reality* of current practices in policy design (Clarke and Craft, 2019). Whilst theoretical arguments on how to approach policy design may allow for expressing how policy *ought to be* designed, this predominantly highlights the differences in their arguments. Looking, instead, into the design of policy in practice, the views from Policy and Design may be less contrasting.

Policy and Design scholars have argued for this approach to understanding the opportunities and challenges for Design by taking into account the influence of Government (Bailey and Lloyd, 2016b; Craft and Clarke, 2019). I therefore choose to gather insights that consider the impact of the practical contexts on the nature of policy design. By choosing to look into professional practices of those working in and around policy design, I am able to acknowledge that policy design processes are subject to how Government is organised and operates, and that the administrative structures and procedures from Government are expected to influence how policy design practices develop. As such, I believe that gaining insight into *how things are* allows me to recognise the limits in descriptions of how policy *ought to be* designed. This approach to researching the opportunities and challenges for Design in policy design practices, consequently, is more likely to result in insights that are recognised by both Policy and Design perspectives.

The problematising of EBPM highlights the influence of people, power and politics on policy design processes and on the ways in which evidence informs decisions (Cairney, 2016; Dorey, 2018; McGann et al, 2018). I identify the need to situate the research amidst these influences to gain insight into their impact on the potential of Design to contribute to evidence and decision-making practices in policy design. Hence, I choose to focus the research at the nexus of evidence and decision-making practices in policy design.

Informed by the insights, in this thesis I identify what kind of practices could be enabled through the introduction of Design, what the meaning of Design may be in these practices of policy design, and the (potential) role of designers in enabling evidence and decision-making practices that are in line with the values of Design as well as the professional context of Government.

1.6 Aims, objectives and research questions

The central research question to this doctoral work is:

What is the role of Design in policymaking and policy design practices in UK Government?

Three additional questions are set up to focus the research:

1. *How might the knowledge and outcomes of design research influence policymaking processes?*
2. *How might the practices, methods and skills of Design be integrated into policymaking practices?*
3. *How might policymakers understand policy design processes as processes of Design?*

My objective for this doctoral research is to bring together perspectives from Design and Policy domains on the discourse *Design for Policy* in order to bridge discussions on the potential of Design for policy design. My aim is to focus on practices of Policy and Design to identify overlaps and differences in their approaches to policy design. In doing so, my aim is to understand the circumstances under which policy is designed and their impact on the potential contributions by Design.

My subsequent objective is to generate insights that take into account the different perspectives on and experiences of the practices of policy design. I aim to focus on policy design as process taking place in an ecosystem in which multiple professional practices are operating to identify how Design (may) take part. To this end, I set out to conduct my fieldwork in collaboration with professionals working in and around policy design to gather reflections on their practices and their experiences of working with Design-oriented methods.

A third objective is to understand, specifically, the nature of evidence and decision-making practices in UK Government in order to contribute insight into how Design may be introduced to these particular aspects of designing policy. I therefore aim to focus the fieldwork on understanding the opportunities and challenges professionals experience in taking Policy and Design-oriented approaches to evidence and decision-making practices. I set out to gather reflections from policy informers, policy designers and policymakers to inform my insights on the role of Design in policymaking and policy design practices in UK Government.

My overall objective is, through insights generated on context, practices, and experiences of policy design, to develop recommendations on how Design-oriented approaches may become part of evidence and decision-making practices in policy design.

1.7 Thesis structure

This account of the doctoral work presents linked studies that I have conducted to understand the potential of Design to contribute to evidence and decision-making practices in policy design. I report on three studies conducted into the professional practices of, respectively: policy informers, policy designers and policy makers. Focusing data collection on gathering experiential accounts from the different professional groups, I reflect on their voiced and observed experiences of working in their respective roles to contribute to policy design. In so doing, I develop a thesis that delivers new applied and analytic understanding of how evidence and decision-making practices manifest in policy design and how these can be contributed to through Design.

The account is divided into three Sections: Background, Fieldwork, Discussion. The Background Section includes an Introduction, Literature Review, and Methodology Chapter. The Fieldwork Section contains Chapters reporting and reflecting on the three studies that were conducted. The Discussion Section presents both discussion of the research insights gained, followed by Conclusions, transferrable insights and directions for future work.

Part 1: Background

In **Chapter 1**, I introduce the thesis, relevant key terms, and motivation for the thesis. Identifying a 'social turn' in Design and a grand challenge of *Design for Policy*, I choose to focus the research on gaining insight into evidence and decision-making practices in policy design and aim to identify how Design may contribute to these.

In **Chapter 2**, I review literature of *Design for Policy* coming from fields of Design and Policy. In the first Section, I synthesise literature from Policy and Design domains to gain an understanding of the notion of knowledge in policy design. I explore ideas around

policy as a scientific or design practice and continue by taking into consideration the influence of organisational processes and culture on evidence and decision-making practices in policy design. The second Section of the literature review focuses on different approaches to problem-solving. I unpick ideas of analysis and synthesis approaches that are discussed by researchers at the intersection of Policy and Design to reflect on the potential of iterative and prototyping practices in policy design. After this, I review the development of the *Design for Policy* discourse and identify a transition in the argument made with regards to the potential contribution of Design methods in policy design. I explore the meaning of Design in Policy through a review of the different perspectives on public sector innovation labs (PSI-labs) and identify an emerging argument calling for a more collaborative partnership between Policy and Design to progress professional practices in policy design.

Chapter 3 is the methodology Chapter in which I position and detail my methodological approach. The studies are guided by a constructivist understanding of the world which is detailed in the Section ‘philosophical approach’ (Section 3.1). Subsequently, in this Chapter I set out the decisions made regarding the collection of experiential accounts of professionals whose work aims to contribute to policy design. I argue why the data gathered through each of the studies is analysed thematically to generate qualitative findings and specify how each of the research contexts informed a different research method.

Part 2: Fieldwork

In **Chapter 4**, I report on the first study conducted as part of the fieldwork for the doctoral research. The purpose of this first Study is to gain insight into the role of policy informers in designing policy and how the knowledge and outcomes of design research influences policymaking processes. In this Chapter, I discuss the findings generated through a series of semi-structured interviews with policy informers from academia, think tanks, and the civil service. I reflect on their experiences of aiming to inform policy design with different types of evidence and I describe approaches which participants have used to inform evidence-based policy with human-centred knowledge and future-oriented scenarios. Through this Study, I gained the insight that policy informers

mediate an interactive dialogue between the different practices and needs of policymakers and design researchers.

In **Chapter 5**, I report on a participant observation conducted at UK Policy Lab. The purpose of this second study is to gain insight into the role of policy designers in designing policy, and their experiences of and reflection on how the practices, methods and skills of Design are integrated into policymaking practices. My findings focus on the Design-oriented approaches Policy Lab uses to introduce reflective practices to policy design and their use of graphical elicitation methods to enable policymakers to reflect on their policy design practices. The overall insight from this Study is that by using reflective practices, policy designers facilitate a link between Policy- and Design-oriented approaches to policy design.

In **Chapter 6**, I report on a graphic elicitation study conducted with policy makers. The purpose of this third Study is to gain insight into policymakers' experiences of how policymakers understand policy design processes as processes of Design. I focus on how idea development may have been influenced through policymakers' collaboration with Policy Lab and/or use of Design-oriented methods. Secondly, I aim to understand how idea development processes are influenced by factors from outside the policy team. I generated findings on participants' experiences of evaluating the impact of policy ideas, which appear to be focused predominantly on understanding in detail the impact of a policy on the organisation and operation of government. The accounts highlighted several challenges and opportunities for Design, as policy teams have to adhere to existing decision-making structures set up by UK Government. This Study led to the insight that policymakers negotiate bureaucratic processes and policy idea development in order to achieve consensus between Policy- and Design-oriented perspectives on decision-making.

Part 3: Discussion

In **Chapter 7**, I bring together the findings generated through the three studies and discuss these in response to the research questions central to the doctoral research. I discuss what the value of Design practices may be when operating, like policy teams, at the nexus of evidence and decision-making. In Section 7.1, I reflect on the role of the

designer as an expert Policy Advisor. I argue that, in order to prove their value to policy teams, designers need to find ways to document and communicate their processes and findings according to the needs of policy teams. In Section 7.2, I discuss how Design-oriented approaches appear to respond to limitations of EBPM when needing to explore issues that are likely to disrupt existing policies. Whilst in these projects designers and policy teams may be permitted to take an unconventional Design-oriented path in some policy projects, I identify an opportunity for designers to become involved in the bureaucracy to solidify their position within government.

In Section 7.3, I discuss the use of reflection in the Design-oriented methods developed by Policy Lab and their implicit impact on the practices of policymakers. I identify that there is a great opportunity for designers to make this an explicit contribution of the designer *mindset* to policy, and advocate for the mobilisation of Design-oriented methods to support policymakers in the use of reflection as part of their professional practices.

With **Chapter 8**, I conclude this thesis account by bringing together the different Sections of this thesis. I report on how I have addressed my aims and objectives for this thesis by conducting three studies in collaboration with policy informers, policy designers and policymakers, and by focussing my studies on gathering insight into how Design-oriented methods, outcomes and knowledge have been used in policy design. I reiterate the key findings from the studies and list the contributions that have been discussed in detail in Chapter 7. I then draw the conclusion that designers will not be policymakers, nor will policymakers become designers but that there is potential for Design in expert roles and as diffuse practices to contribute to policy design - most noticeably for the reflective practice of Design. Lastly, I identify the limitations of the research and make several recommendations for future work focused on formalising Design-oriented practices through embedding them in the organisational and bureaucratic processes of Government.

1.8 Contributions

Throughout this thesis account, I will build towards my contributions to the *Design for Policy* discourse. In this Section, I provide a succinct list of how I contribute to the knowledge and understanding of the potential of *Design for Policy*:

- 1) Whilst there is value for having designers embedded in government to allow policymakers to easily access to human-centred policy design advice, I challenge the idea of the policy designer being a human-centred alternative to the generalist policymaker. I reaffirm that, as expert Policy Advisors on human-centred policy design, designers may be able to focus on iterative and co-creative prototyping practices to generate insight into policy ideas. But, in order for their perspective to be considered by policy teams, designers need to acknowledge the role of their agency in developing human-centred perspectives on policy ideas.
- 2) Design may present alternative approaches to policy design when the policy issue addressed is anticipated to disrupt existing policy structures, or when a framework of policies to build on, learn from or extend is lacking. When designers aim to prove their methods as a valuable alternative to EBPM they need to be legitimised within the administrative organisation in order to support policy teams in using Design-oriented approaches to explorative policy design processes.
- 3) In order to understand the role of Design in practices of policymaking and policy design, one should look beyond its human-centred premise and instead speak to strategic practices of Design. Then, the characteristics of the designer as *reflective practitioner* concretely describe the unexplainable *designer mindset*. When made explicit and subsequently incorporated into the bureaucratic structures that aim to organise the complex practice of policymaking, reflective practices can support policymakers in making explicit the process that takes place as they move between knowledge and decision-making.
- 4) Overall, I reaffirm that an understanding of government practices and cultures is essential when aiming to contribute to policy design practices. I expand this understanding with the knowledge that, in order to bring Policy and Design approaches to policy design closer together, designers should not only seek to better understand the organisational and bureaucratic structures that exist within UK Government but also to become involved in designing them.

Chapter 2 Literature Review

In the early discourse of *Design for Policy*, reflections and insights predominantly come from a Design studies perspective, with designers articulating how they envision policy design practices to become more experimental, collaborative, and iterative. Research publications focused on arguing against current policy design practices, proposing how Design methods can “*transcend organisational and procedural silos, established hierarchies or bureaucratic categories*” (Hermus et al, 2020, p24) and present a human-centred alternative to current policy design practices. Policy literature on *Design for Policy* reveals differing views on what to consider when influencing or replacing existing practices in policy design, and surface tensions around the appropriateness of Design approaches to policy design given the need for these to be feasible for government as a large-scale organisation.

Recent publications in both fields reveal an intention to move these Policy and Design discourses closer together, as suggestions are made about enriching current approaches by blending characteristics of current policy practices and Design methods rather than overwriting them. As part of this redirecting of the *Design for Policy* discourse, Design scholars have sought to link their discourse more closely to that of policy studies to evaluate its success and challenges in influencing policy practices. The incentive for this redirecting of the discourse appears to come from an increasing awareness amongst Design scholars of existing policy design practices. Design scholar Mortati was, in 2019, one of the first to publish a Design article explicitly investigating existing policy practices to identify opportunities for Design.

Simultaneous to the interest in policy design by Design scholars, according to political scientist Peters - in his review of the potential for Design institutions from an organisational perspective - “*policy design has returned to the centre of discussions of public policy, both for academics and practitioners*” (Peters, 2020, p131). Additionally, whilst evidence-based policymaking (EBPM) may be considered the prevailing framework to current policy design processes, there appears to be an increasing interest in Design methods amongst Policy scholars.

Building on the differing and emerging views on the value of Design in policy design processes, I focus in this literature review on comparing ideas from Policy and Design around decision-making, knowledge, and expertise in policy design practices. The aim of this comparison is to better understand the perspectives of these two domains regarding appropriate and suitable methods for policy design. My approach to engaging with the literature on *Design for Policy* is to draw on publications from both Policy and Design. Instead of creating an overview of each of their respective bodies of literature, I purposefully synthesise the literature in an integrated way to draw out complementary topics and themes. I choose to do so in order to establish a conversation between the two seemingly contrasting discourses, as through this I set out to bridge Policy and Design practices in order to contribute to development in policy design.

In Section 2.1, I synthesise literature from the fields of Policy and Design to gain an understanding of the notion of knowledge in policy design. I explore researchers' statements about how citizens, in the policymaking, are represented most accurately in data sets. I identify a tension between those who prefer to rely on findings from a large sample of the total number of citizens to whom the finding is supposed to apply, and those who argue that decisions on policy should rely on smaller sample sets as they lead to a better understanding of the individual experiences of citizens. Through this synthesis of Policy and Design discourses, I develop an understanding of their views on what forms of knowledge are considered most representative and appropriate to inform decision on policy.

In Section 2.2, I take a broader look at the role of evidence in policy design and explore ideas around Policy as scientific or design practice. I unpick ideas around analysis and synthesis approaches that are discussed in Policy and Design to reflect on the potential of iterative and prototyping practices in policy design. I continue by taking a more abstract look at approaches to problem-solving by identifying different perspectives on problem definition and solution proposition processes in policy design practices. I subsequently bring in discussions around the influence of organisational culture on evidence and decision-making practices in policy design in general.

In Section 2.3, I review the development of the *Design for Policy* discourse and identify a transition in the argument made with regards to the potential contribution of Design methods to policy design. Whilst authors have argued for a radical transformation of policy design practices in the early years of *Design for Policy* research, this promise has become more balanced as researchers consider the influence of large-scale organisations - and organisational cultures within these - when aiming to change professional practices. Keeping this in mind, I explore the meaning of Design in Policy through a review of the different views of public sector innovation labs (PSI-labs) and identify an argument calling for a more collaborative relationship between Policy and Design practices to progress policy design processes. As I have a specific interest in the potential contribution of Design to evidence and decision-making practices in policy design, this strongly informs my methodological approach. I choose to engage in a partnership between myself as a design researcher and professionals working in policy design.

Before moving on to the first section of this literature review, I want to refer back to my motivation for this thesis in Section 1.2. My personal experience highlights the wide range of traditions, practices and approaches to design research that I have been informed and inspired by throughout my development as designer and design researcher. Consequently, defining the concrete meaning of the term 'design research' I see as challenging, as it can mean many things. (This will also become apparent as I discuss the meaning of Design in policy in Section 2.3.2 of this thesis.) My belief that the expansive meaning of design research should be 'celebrated', is reinforced by 'the Routledge Companion on Design research', edited by Design scholars Paul Rodgers and Joyce Yee (2014) who conclude that:

[W]e need to find new ways in design research where we acknowledge variety, where we enrich different ways of thinking, creating, cooperating and investigating design and how it can be best used in our increasingly complex world. In short, if The Routledge Companion to Design Research has one message it is that we should celebrate the plurality of design research and embrace the generous, inclusive, explorative, serious, creative, critical, participative and inquisitive attitudes that prevail in contemporary design research. (Ibid., p517)

Nonetheless, whilst Design carries different meanings, this does not mean that there cannot be found a central orientation in the domain, which I addressed in Section 1.3 on

Designers' turn to social problem-solving. Again, this is too found within design research.

As Rodgers and Yee (2014) claim:

[W]e can see strong evidence of design research emerging from the clutches of this fascination with the rational and the measurable to a situation where a greater emphasis is placed on the more socio-cultural aspects of design and the greater context-dependency of knowledge that is produced. (Ibid., p517)

For the purposes of this thesis, to come to a definition of *design research*, I built on Rodgers' and Yee's understanding of the field: *Design research* is an art nor science, focused on understanding the impact of decisions made during a design process as well as the decisions made resulting in the outcomes of the process. Inquiries are made into on the world in which designs are placed, but also into the world designs may create. Design research generates insight into the contextual and specific, and as such, produces a form of knowledge that is situated rather than generalisable.

To this, I want to add my personal understanding of design research that it is an inherently reflective practice. This impacts the kind of knowledge design research generates and brings my understanding of design research close to the practices of design practitioners: According to Design scholars and practitioners Gardien and colleagues, "*practitioners complement their theoretical knowledge by reflecting upon practical experiences, resulting in a wealth of non-formalised, practice-based knowledge*" (Gardien et al, 2014, p124).

Whilst my understanding of what design research *is*, is particularly wide and strongly informed by the domain's *plurality* in practices, in contrast, my selection of literature is of a deliberately limited scope: Publications that focus on both highlighting Design and Policy perspectives.

This scope resulted from taking an unsuccessful, different, approach to reviewing literature in design research. Prior to the literature review written up in this thesis, I intended to introduce the academic fields of Policy and Design in separate sections, with each their respective narrative. Whilst this allowed me to address the wider field of design research and its academic publications, multiple attempts did not result in the review of literature positioned at the intersection of Policy and Design.

To review and bring closer together Policy and Design perspectives on the Design for Policy discourse, I therefore decided to select a smaller selection of literature that

allowed me to go into how Design is understood and discussed in the Policy discourse, and vice versa.

2.1 Knowledge in policy design

With the general introduction of Evidence-based Policymaking (EBPM) to UK Government at the turn of the 21st century, the role of 'evidence' has been of increasing importance to decision-making in policy design.

Consequently, according to McGann and co-authors *"the role of 'evidence' in policymaking receives significant attention as policymakers aspire to show that their decisions are based upon evidentiary facts rather than ideology or partisan beliefs"* (McGann et al 2018, p263).

In order to understand how design research may contribute to policy design in a culture where EBPM dominates, the value of knowledge produced through design research should be understood in the context of policy practices. In this Section, I explore how knowledge is described from Policy and Design perspectives. Through this, an understanding is developed of what makes knowledge 'evidentiary' in order to inform policy decision-making. Subsequently, identifying characteristics of policy-oriented evidence allows me to reflect on whether knowledge that is generated through the use of Design methods is likely to be considered as evidence in policy decision-making.

2.1.1 Characteristics of 'evidentiary' knowledge

As touched upon in the previous paragraph, it appears that not all knowledge is considered evidence in policy processes. The characteristics of evidence described in the *Design for Policy* discourse discloses tensions between Policy and Design scholars on which perspectives should be prioritised when decision-making. Tensions appear to revolve around the notion of certainty of knowledge. I highlight differences between Policy and Design on how they address temporality of evidence in decision-making and introduce discussions around whether micro or macro accounts should be deemed representative of the aspect of the policy issue under consideration.

2.1.1.1 *Generalised and situated representation*

Just like EBPM,¹³ design researchers have aimed to develop evidence-based *design practices*. According to design researcher Wensveen whilst these “*attempts to turn [D]esign into science*” have arguably aimed to understand design research as a *positivist practice*, they have “*failed to attract much following*” (Wensveen, 2018, p14). Design researchers tend to take context-focused approaches to research, resulting in *situated* rather than *generalisable* knowledge. As Wensveen posits, “*[D]esign turned out not to be an abstract and general discipline, but particularistic and specific*” (Wensveen, 2018, p14). Furthermore, in their approach to research processes, designers may adopt a “*more interpretative, intuitive mindset*” than that which may be acceptable in *positivist frameworks* (Bason, 2016, p138). Design scholars and practitioners Gardien and colleagues (2014), highlight the changing role of the design argue that “*the rigid design engineering process [...], with its intentional disregard of designer intuition, does not do justice to the design practitioner’s ability for reflection-in-action.*” (Gardien et al, 2014, p124)

Bason, discussing the role of Design, innovation and leadership in contexts of business and government, describes an aim for “*objective rationality*” when considering evidence in policy decision-making (Bason, 2016, p227). In their review of Public-Sector Innovation Labs (PSI-Labs) Policy scholars McGann et al, too, note “*policy development based on social-scientific evidence about what works is prescribed by positivist-oriented policy scientists as the way to make and do policy*” (McGann et al, 2018, p263).

As a consequence, McGann and colleagues argue, bringing a *positivist mindset* to policy design puts “*participatory, user-centred approaches*” in a disadvantaged position:

This is reflected in the greater esteem attached to quantitative disciplines such as health economics and risk analysis compared to more hermeneutic and interpretative disciplines such as history and cultural sociology. (Ibid.)

This is problematised particularly by those coming to this discourse from a Design perspective such as Bason. Bason argues that *quantitative knowledge* may lead to

¹³ Developing the policymaking practice as one basing itself on evidence had “its roots in the larger movement towards evidence-based practice,” (Wikipedia) Evidence-based practice: “Evidence-based practice (EBP) is the idea that occupational practices ought to be based on scientific evidence.” (Wikipedia)

“simplified assumptions about human behaviour inside and outside government systems,” and that this presents a risk when aiming to base policy decision-making on evidence (Bason, 2016, p227).

Reflecting on these differing perspectives between quantitative and qualitative forms of knowledge to inform policy design, this tension seems to extend into the logic applied in order to develop knowledge. For example, in their research examining the tensions between evidence-based policy making practices and Design processes, Lucy Kimbell acknowledges that *“neither [abductive, deductive, or inductive] is self-evidently right”* (Kimbell, 2015, p31). Through her work on the use of design thinking and Design expertise in, amongst others, public policy issues in the UK (UAL, 2021), Kimbell argues that *“different research approaches do different things and offer different kinds of validity, to allow policy officials and ministers to reach decisions”* (Ibid., p31). Nonetheless, McGann and colleagues seem to suggest that, in current policy practices, quantitative and generalised forms of knowledge are considered more representative than their qualitative and situated alternative. They argue, whilst *“participatory, user-centred approaches may excel [...] in collaboratively generating ideas that have ‘buy in’ from stakeholders [...] they seldom produce the kind of quantifiable, ‘the size of the effect of A on B is’, evidence demanded by positivist models”* (McGann et al, 2018, p264). According to the authors, positivist frameworks in EBPM create the illusion that they *“bring order and control to the ‘fuzzy and messy realities’ of policy through the discovery of ‘hard facts’”* (McGann et al, 2018, p263).

Whilst numerical forms of knowledge - based on larger samples to result in generalised findings - may be more representative when decisions will be implemented across a whole nation, it may be that in some contexts qualitative, small-scale forms of knowledge are more representative than quantitative knowledge. Especially when designers argue for more human-centred approaches as policies respond to those ‘fuzzy and messy realities’, there may be alternative arguments for more smaller scale, qualitative and situated representation. In particular, as it may allow government to understand in more detail how decision-making in policy design impact citizens’ lives.

2.1.1.2 *Causal and speculative approaches to temporality*

Scholars, furthermore, address a range of knowledge practices when considering a policy decision in relation to a policy's projected timeline. Looking more closely into the notion of temporality in evidence for policy, this Section brings forward perspectives of scholars at the intersection of policy studies and design research.

McGann et al refer to evidence of *what works* (McGann et al, 2018). This suggests that in policy processes, knowledge is expected to contain a certain predictability of a decision's impact: it should indicate whether a 'problem' can be 'solved' when relying on the evidence. In this Section, I focus on how designers' approaches to problem-solving impact the logic that is applied in their processes and how this, subsequently, influences the nature of knowledge it may produce for policy processes.¹⁴

The reliability of evidence on *what works* seems, in the positivist mindset, linked to knowledge of what has happened in the past and is currently happening. As such, scholars agree that most policy design processes rely on knowledge of the past and present. Whilst this type of knowledge may present great certainty, it may not be reliable as evidence in policy processes when these need to respond to the needs of the future. In contrast, coming from a public administration (PA) and sociology perspective, authors Hermus et al state that designers make "*educated guesses and provisional hypotheses to generate ideas to develop valuable designs*" (Hermus et al, 2020, p35).¹⁵

Hermus' and co-authors' "*systematic literature review of the empirical applications of [D]esign in public administration*" (Ibid., p33), is part of Hermus' research focussing on "*the (lack of) complementarity between participatory processes and more traditional*

¹⁴ Reviewing scholars' perspectives on current problem-solving approaches in policy and opportunities for introducing Design-oriented methods, it becomes clear that in designers' problem-solving processes problem and solution defining is an emerging process that takes place throughout the different design phases. Section 2.2.1 will explore this process in more detail.

¹⁵ To note here, in order to gain a full understanding of the intersection of Design and Policy in the *Design for Policy* discourse, I bring together the views by Design and Policy scholars and commentators. I review their own views on the potential of Design for Policy, and their response to the views of the other discipline (e.g., How Policy scholars review the views of Design scholars on the potential of Design for Policy). As in Section 1.4 I introduced the views from design researchers on how policy practices need to change, as I continue this literature review, I discuss how Policy researchers understand the role and potential of Design in policy.

ways of policymaking” (EUR, 2020). In her work, Hermus looks, in particular, into the effect that a lack of enhancing a combination of these practices may have on *“problem solving and governance”* in policy processes (Ibid.). The article emphasises how designers continuously redefine problem and solution whilst a better understanding of both problem and solution emerges throughout their processes.¹⁶

Moving from Hermus’ public administration publication back to literature from Design research: In their 2008 publication aimed at widening the understanding of Design practices in human-computer interaction, scholars Forlizzi, Zimmerman and Evenson argue that co-evolving of problem and solution takes place as *“design researchers [...] attempt to make the “right” thing”* (Forlizzi, Zimmerman and Evenson, 2008, p25). They argue that the ‘right’ design presents *“a concrete problem framing and articulation of the preferred state,”* and suggest that the articulation of knowledge in design research may therefore describe what *could be* rather than what *is*. It implies that knowledge generated through design research may focus predominantly on change, rather than a continuation of the status quo (Ibid., p25).

As such, Forlizzi, Zimmerman and Evenson argue design research practices *“use the logic of abduction – the logic of what could be”* (Ibid., p35). The knowledge these processes produce, Kimbell states, are therefore *“plausible but provisional”* (Kimbell, 2015, p31). Designers responding to social problems may be unlikely to produce deductive knowledge, and neither *“offer definitive evidence”* (Ibid., p31). As Hermus and co-authors point out, this creates a tension with current understandings in policy processes of *“validity of evidence [being] produced by induction and deduction”* (Hermus et al, 2020, p31). This can be foreseen to be especially problematic when policies need to be developed in response to issues caused by emerging technologies that lack historic knowledge. As ‘definitive’ or ‘certain’ knowledge may be unavailable on the impact of policy decisions in this kind of context, insights on possible futures may need to be generated. As these practices produce *“imperfect truths”*, Siodmok - founder and former head of UK Policy Lab – argues that designers may be in the position to *“generate data about the future”* (Siodmok, 2014a, p26). Without making claims along the lines of

¹⁶ In Section 2.2.1, I will explore this process of co-evolving problem and solution in more detail.

designers being able to generate data *of* the future or even to *forecast* the future, designers may bring methods to policy practices that allows one to *speculate* on what the impact of policy decisions in these contexts may be.

Overall, the incentive to move policy design processes towards evidence-based decision making appears to be favoured by both scholars in policy studies and design research. It has allowed a focus in policy design practices on decision-making based on “*what is most likely to work*” – Dorey describes as he relates theoretical ideas of policymaking with actual policy practices (Dorey, 2005, p45). In this section, reviewing literature revealed two tensions that exist in evidence-based approaches to policy decision-making. Although grounding a policy’s design in evidence that is in support of the decision “*might imply a cool, calm and careful analysis of ‘the facts’*” (Ibid., p45), a closer review of literature has foregrounded differing ideas around the nature of ‘evidence’ to inform policy decision-making.

Gaining a better understanding of the role of evidence in policymaking processes through the reviewed literature has shown that the type of knowledge brought into policy design processes may need to differ depending on the type of policy issue addressed. As evidence allegedly serves to provide knowledge on which decisions will achieve the intended impact, issues around representation and temporality may problematise, as Kimbell argues, the idea that policymaking should solely be “*rooted in rationality and on the validity of evidence produced by induction and deduction*” (Kimbell, 2015, p31). The literature describing more future-oriented approaches for policy design proposed by Design scholars reveals that other forms of knowledge may need to be considered to support current policy design processes.

With knowledge becoming a central concern in policy decision-making, this may bring academic and political values into the same space: “*University researchers often have theoretical and philosophical interests in public problems [to] be translated directly into policy analysis*” (Howlett, Ramesh, and Perl, 2009, p72). As such, whilst bringing forward knowledge to serve as evidence in policy processes, scholars may move closer towards political arenas. This has led social scientists Oliver and Pearce – both interested in the use of evidence in policymaking (LSHTM, 2021; University of Sheffield, 2021) - to ask:

“How far researchers should go to influence debates about policy and practice, without compromising their neutrality” (Oliver and Pearce, 2017, p5). The authors appear to assume that research practices and outcomes are *neutral*. Section 2.1.2 unpicks this assumption to understand the role of neutrality as a criterion against which knowledge is measured in order to determine whether it is suitable for integration into a policy process.

2.1.2 Role of evidence in policy design

In this section, I review scholars’ perspectives on whether evidence-based processes can be neutral, or whether policy is inherently political given the inevitable presence of people’s values in decision-making.

Whilst according to Hermus et al *“a more science- or expert-driven approach”* currently determines *“the traditional line of thinking”* in policy design - suggesting policy processes aim to adhere to practices from the sciences - the question remains whether values and beliefs can be removed from decision-making (Hermus et al 2020, p34). This is highlighted by Dorey, as he describes that different conclusions may be derived from the same set of evidence:

Even when the ‘facts’ are widely accepted, they might be cited in support of markedly different policy responses. [...] The same set of statistics can result in two – or more- very different conclusions and policy responses. (Dorey, 2005, p46)

Dorey’s statement here articulates how interpretation of knowledge is needed before it serves as evidence in policy decision-making. There is a *reading into* knowledge to synthesise it in the context of the policy decision to be made. Consequently, Dorey argues, *“‘facts’ do not ‘speak for themselves”* (Ibid. p46). Making sense of knowledge may, as such, unlikely be free from value-informed thinking. This highlights a contrast with the fundamental idea of evidence-based policy design as a – as McGann et al describe it - *“neutral and objectively determined decision-making model”* (McGann et al 2018, p263).

2.1.2.1 *Policy design as a scientific and design practice*

According to McGann and colleagues, design thinking “*problematizes scientific approaches to policy design by challenging conventional understandings of expertise and evidence*” (McGann et al 2018, p264). Through problematising policy design as a science, Kimbell and Bailey argue, designers “*operate in a ‘challenge mode’ in relation to policy practice*” (Kimbell and Bailey, 2017, p219). Bailey and Lloyd describe how the challenging of existing practices uses “*design as generating an entirely different decision-making model for policy*” (Bailey and Lloyd, 2016b, p3624). This has also been observed by Mortati, who suggests that since the introduction of Design methods to policy processes, “*a new ethos seems to emerge that discusses new political dimensions and practical approaches through which design can engage more critically with public institutions*” (Mortati, 2019, p777). The perception seems to be that Design is a valuable means to question current practices in policy design. Simultaneously, Policy scholars too express a shared critical view of the idea of policymaking as science.

The idea that the process of knowledge becoming evidence can be completely neutral has been dismissed as, McGann et al argue, “*naively rationalist*” as it “*presumes an all too linear relationship between evidence and policymaking and an untenable distinction between (policy) facts and (political) values*” (McGann et al 2018, p263). Policymaking is inherently political given its direct connection to the powers of politicians. Therefore, even when decisions are based on “*the ‘facts’*,” Dorey says, the knowledge informing policy processes “*will still be subject to interpretation prior to the adoption of the ‘correct’ policy*” (Dorey, 2005, p45).

Furthermore, the decision of which knowledge to bring forward as evidence is “*a value-laden decision*” as McGann et al argue. The authors emphasise, “*the evidence that policymakers choose to draw on is in itself a value-laden decision, where what is ignored is as important as what is chosen*” (McGann et al 2018, p263).

Although these are valuable arguments to understand the non-neutrality of evidence-based decision-making processes, there appears to be a more fundamental assumption that knowledge itself is neutral. Mortati disagrees with this assumption and argues that even when “*indicat[ing] a set of methods that sustain a more rigorous process of policy development informed by systematic use of evidence*,” how and which knowledge to

make use of is *“not a straightforward argument due to the non-neutral nature of data”* (Mortati, 2019, p5).

It is important to recognise at this point that within the field of *Design for Policy*, there is agreement that designers are *“never neutral”* (Bason, 2016, p230/231). For example, collaborative Design may allow for a more transparent form of decision-making as it opens processes up to a wider set of contributors outside of government and – according to Bason - *“at the surface seem to draw largely on ‘neutral’ process facilitation”* (Ibid.). Nonetheless, as designers often take *“interpretative”* approaches to decision-making this influences the neutrality of Design processes and their outcomes. (Clarke and Craft, 2019, p9) As Bason emphasises, the interpretative practices of designers *“raises the challenge of designers to be transparent about their values as they offer their contribution to the policy process”* and through that to be aligned with those that argue for policy design as an evidence-informed practice whilst dismissing the idea of policy as a design science. (Bason, 2016, p230/231) As such, Design scholars contribute to existing *“epistemological debates”* that - according to Cairney - *“have raged for centuries”* in the field of policy. (Cairney, 2016, p3)

As part of his work that focuses on *“the ways in which policy studies can explain the use of evidence in politics and policy, and how policymakers translate broad long term aims into evidence-informed objectives,”* (University of Stirling, 2021) Cairney situates the theoretical ideas of EBPM in the constraints of practice. Cairney brings forward two discourses in the epistemological debates around *“the extent to which policymaking can be based on ‘rational’ decisions.”* (Cairney, 2016, p3)

1. EBPM is more likely to gather ‘policy-based evidence’: Evidence is not used in a scholarly manner to ground decision in evidence but rather in finding the evidence that confirms the political statement that one aims to make. Therefore, this approach has been referred to as ‘evidence-informed’ policymaking, highlighting a place for the influence of values and political judgement in the process.
2. EBPM is based on a narrow understanding of what can be considered as policy-relevant evidence, and as such, is likely to exclude specific forms of knowledge

from being brought forward. Consequently, it is argued that EBPM should accept a wider range of knowledge and create an explicit space to interpret the different forms of knowledge. Rather than prioritising quantitative forms of knowledge, Cairney argues there should be room for policymakers to learn about the context, experiences, potential and alternatives to the problem in which they aim to intervene.

Cairney's arguments suggest that it is unrealistic to expect policy design to operate as a science. In challenging the forms of and practice of knowledge accepted in policy design, design researchers appear to be in line with prominent debates in policy design. Both domains appear to agree that even as an evidence-based practice, and whether or not it integrates Design methods, policy design cannot be fully value-free as the synthesis of gathered knowledge requires a level of interpretation in order to inform decision-making.

2.1.2.2 *Epistemology and culture of policy design*

As discussed in section 2.1.1, the differences between allegedly prioritised forms of knowledge in current policy processes and the forms of knowledge that come from interpretative design research, present barriers to the integration of design research findings in policy design practices. To further understand 'epistemological debates' around the role of knowledge in policy design, here I look more closely into what may be considered the 'right' handling of knowledge in policy design processes. This reveals a different understanding amongst design and policy scholars of what the focal point in the discourse should be when discussing appropriate ways to handle knowledge in policy design processes.

Cairney highlights the importance to understand that policymakers "*recognise the limits to existing data, but have to choose quickly, especially if there is never any prospect of receiving completely supportive evidence*" (Cairney, 2016, p14). Policy issues are often complex, allowing for multiple interpretations and perspectives on how to address them. Furthermore, handling evidence is "*often subject to very strong constraints coming from the use of public money*" (Mortati, 2019, p9). As such, even when intended as an evidence-based practice, policy design is never solely evidence-oriented. Instead,

the process must go through a complex organisation that *“needs to combine evidence, values, and political judgement”* (Cairney, 2016, p1). As argued by Mortati, therefore, when aiming to change existing policy design practices it may be assumed that *“better information alone cannot determine positive transformation”* (Mortati, 2019, p5).

Understanding how design research may contribute to evidence and decision-making practices in policy design, it is therefore important to understand how knowledge sits within the wider context of policy design. As Clarke and Craft state: *“given the complexity of the policy issue, and the political controversies and ideological conflicts it involves, [all forms of knowledge] input will inevitably produce a mixed bag of competing needs to weigh”* (Clarke and Craft, 2019, p6). Whilst the accounts from amongst others Mortati suggest the awareness of these contextual constraints, Clarke and Craft argue the current Design discourse around *Design for Policy “fails to fully address”* the wider *“policymaking dynamics”* (Ibid.).

Instead, Design scholars seem to focus their arguments on their – as Bailey and Lloyd observe – *“rather different [...] ways of knowing”* in policy design (Bailey and Lloyd, 2016b, p3626). Focusing on qualitative, interpretivist forms of knowledge, Design scholars argue that Design methods take a different and often distinctly creative approach to understanding ‘what works’ than is common in policy design. This is often contrasted to the positivist, macro-scale perspective to deciding what is likely to work. As Bason emphasises, the discourse strongly presents Design and Policy as *“two seemingly opposing understandings”* of knowledge in policy (Bason, 2016, p227).

The introduction of this literature review highlighted a recent development in the *Design for Policy* discourse: Design scholars are taking an interest in understanding the potential of Design to inform policy from a Policy perspective. In doing so, designers appear to balance their initial perspective - which focused predominantly on the need for human-centred practices and qualitative forms of knowledge to inform policy – with an understanding of Government. Illustrative for this change in interest is Bailey and Lloyd’s argument that *“most interesting is not so much an account of the insights, ideas and proposals that a [D]esign-based approach can generate [...] but what happens when this approach to problem-solving collides with a specific institutional culture”* (Bailey and

Lloyd, 2016b, p16). The rest of this literature review aims, therefore, to address the wider dynamics in policy design - as they are discussed by scholars from Policy and Design domains – to investigate evidence and decision-making practices in policy design.

2.2 Analysis and synthesis approaches to policy design

In their article discussing how design thinking strategies may be applied more broadly in policymaking and training, public policy scholars Mintron and Luetjens state that *“traditionally, policymaking has been characterised as an intendedly rational process involving a linear path from problem definition to the analysis of options and development of policy solutions”* (Mintron and Luetjens, 2016, p393). Whilst EBPM seems to reinforce this view, the authors argue that the idea of policy design as a linear process *“is [increasingly] contested due to the inherent complexities facing the public sector”* (Ibid.).

This section of the literature review explores why the traditional linear approach to policy design is contested. I explore complexities in policy design identified by researchers at the intersection of Policy and Design and unpick their perspectives on whether Design presents alternative approaches to address these complexities. It becomes clear, in particular, that tensions within approaches to problem-solving in policy design may come from a combination of these complexities and the overall synthesis practices that are currently deployed. Whilst Design may present alternative synthesis practices, these may not fully address complexities to problem-solving in policy design.

2.2.1 Approaches to problem and solution processes in designing policy

In this review, policy design is understood as encompassing the different phases of policymaking that take place before the implementation of policy. Nonetheless, complexities that arise as policy implementation is not seen as a part of the processes of designing it are addressed frequently in the *Design for Policy* discourse. This becomes clear from synthesising the authors’ perspectives in the *Design for Policy* book. Many authors set out to make the case to reduce *“the distance between policy and implementation”* (Christiansen and Bunt, 2016, p42). In order to do so, Bason argues,

policy design should take an *“integrated view of policymaking and policy implementation”* (Bason, 2016, p229).

More recently, this argument has been coupled more explicitly with existing discourses in policy. Coming from a policy perspective, Clarke and Craft report that the tension between policy design and policy implementation has been recognised by policy scholars, and state that there is a *“[longstanding] debate regarding top-down versus bottom-up implementation”* in literature regarding policy implementation (Clarke and Craft, 2019, p12). Design researcher Mortati addresses this discourse explicitly in her identification of weak and strong spaces for Design in policy formulation.¹⁷ Informed by a review of literature positioned at *“the nexus”* of Policy and Design studies (Mortati, 2019), the author identifies several ‘disconnects’ that exist between the design of policy and its implementation. According to her, these influence whether or not policy designs succeed upon implementation:

- 1) ‘Top-down failure’, which concerns *“the numerous steps and incongruencies that happen between policymakers and local implementers”* (Mortati, 2019, p7).
- 2) ‘Bottom-up explanation’, which describes the *“excessive influence and degree of discretion of so-called street-level bureaucrats”* (Ibid.).
- 3) ‘Outside-in explanation’ which refers to the *“unexpected behaviours of target groups”* (Ibid.).

In order to overcome some of these disconnects, Clarke and Craft argue that *“[policy] designs should not be envisioned as static outputs, but rather are best crafted with an appreciation for the reality that they will need to adapt and adjust over time”* (Clarke and Craft 2019, p12). This is also recognised by public policy and administration scholars Van Buuren and colleagues. They identify three different approaches to Design in policymaking – *“Design as optimisation, Design as exploration and Design as co-creation”* - nonetheless, in itself this acknowledgement does not explicitly distance policy design processes from *“the (boundedly) rational and deductive idea of policy design”* (Van Buuren et al, 2020, p1,12). Reviewing the literature in more detail, I

¹⁷ As described in the key terms (Section 1.1), I understand policy design as an umbrella term for the agenda-setting (scoping), formulation and decision-making phases of policymaking.

identify two arguments made on how policy design may have to step away from the deductive approach, discussed in the following sections.

2.2.1.1 Iterating and prototyping in policy design

According to the public administration research of Hermus et al, designers focus on identifying “*actionable aspects of a problem, by defining a design space, a context in which designs can be actualised*” (Hermus et al, 2020, p28). This moves away from the perspective that policy design processes are best approached through deductive problem-solving. Instead, Hermus and colleagues imply a generative approach to problem-solving, in which ideas for policy interventions may be tested without the need for these to be the end-result of the policy design process. As such, Clarke and Craft state, Design’s approach to policy design is to “*retire waterfall models of policy design in favour of early experimentation and regular iteration.*” (Clarke and Craft, 2019, p17) Consequently, the testing of policy ideas becomes a knowledge generating activity that fits in with abductive approaches to research. In doing so, in essence, policy design may become more of a Design practice. In his article discussing the ‘Social Turn’ in the Design discipline, Design scholar Lloyd (2019) states:

Design (and design methodology) is about making things and trying them out. One only need consider for a moment how things like sketches, prototypes, models, and conversations function in a basic iterative model of design. (Lloyd, 2019, p168)

For example, Van Buuren and co-authors propose to “[*pilot*] interventions with the populations they affect at the earlier stage of development” rather than completing the policy design before trialling its implementation (Van Buuren et al, 2020, p12). Vaz and Prendeville highlight this as “*the exploratory mindset*”, which according to the authors, is “*embodied by a willingness to experiment with solutions that do not necessarily resemble the existing policies*” (Vaz and Prendeville, 2019, p154). Mortati couples the exploratory mindset explicitly with the need for an iterative approach to policy design, enabling policy makers to iterate several policy options: “*Several iterations of a proposal are tested against assumptions and with several stakeholders, consequently reinforcing the user-centred and co-creative spirit*” (Vaz and Prendeville, 2019, p154).

As a consequence, taking an explorative and iterative approach to policy design is believed to decrease the financial and political risks involved. Such a model, Van Buuren and co-authors argue, may enable a space that allows *“the civil service [to] experiment safely with new policy options and service models”* in order to justify decisions made along policy design processes (Van Buuren et al, 2020, p12). The authors recognise this approach as an alternative to *“investing heavily and committing governments to courses of action before they have been proven effective”* (Ibid., p12).

Piloting potential outcomes of policy design processes, following policy scholars Clarke and Craft’s claim, suggest policy designs are seen as non-static outputs. Nonetheless, the proposal of piloting potential policies does not explicitly call for a change in current policy design processes. According to Bailey and Lloyd, evidence practices in policy design processes rely on generating knowledge *“through description rather than acquaintance”* (Bailey and Lloyd, 2016b, p3625). Whilst piloting policy ideas may be understood - from a Design perspective - as a prototyping practice, the process resulting in these ‘prototypes’ may not be generative. Rather than be action-oriented, current practices consist of thought-oriented practices:

For example, reviewing certain kinds of historical evidence or data, understanding the range of potential solutions that are acceptable, applying the analytical and critical capacities of an individual, or asking a known expert.
(Bailey and Lloyd, 2016b, p3625)

Coming back to Hermus and colleagues’ claim that designers focus on identifying actionable aspects, policy design practices do not focus on *“learning through action or testing or immersion in an environment”* (Ibid., p3625). This appears to be the major argument for introducing prototyping practices to policy design. Scholars such as Kimbell, Bailey, and Alvarez et al have brought forward the use of prototyping to enable generative approaches to policy design. Kimbell and Bailey argue that *“prototyping in the context of social innovation, services or systems assumes a broad constituency of participants [...] can support and extend traditional consultation activities and enable them to be more generative”* (Kimbell and Bailey, 2017, p221). Villa Alvarez -who studies the potential role for prototyping in policy formulation - and co-authors suggest that prototyping may enable policymakers to *“communicate, explore, evaluate and refine policy options before decision-making”* (Villa Alvarez, Auricchio and Mortati, 2020, p667).

Aside from practical implications – policymakers may not be trained in action-oriented prototyping methods and may not easily make a paradigm shift from deductive to abductive reasoning – prototyping may bring further challenges when applied in policy contexts. In their paper exploring prototyping as a new approach to policy design, Kimbell and Bailey observe a nuance that exists within prototypes which may present an essential aspect to understanding the role of prototypes in policy design processes:

[A] prototype being on the one hand original, provisional and anticipatory, but at the same time aspiring to being a replicable ideal. (Kimbell and Bailey, 2017, p217/218)

This suggests a transition within prototyping processes during which prototypes may start out as purely conceptual and develop – through a series of iteration – into what may become the final design. Taking an iterative and abductive approach such as prototyping may bridge the gap between policy design and implementation. Nonetheless, these practices may still follow a linear process in which a problem is presumed to be fully understood at the start of the process and it is the solution alone that is to be refined through iteration.

This limited understanding of policy design is recognised by several policy scholars. Van Buuren and colleagues observe that, *“in that conception, [...] [policy design] is considered a set of sequential steps that begins with a problem and results in a solution to that problem”* (Van Buuren et al, 2020, p7). Instead, as Clarke and Craft state, *“designers rely in particular on the interpretative, systems-based, creative style of thinking to understand the problem”* (Clarke and Craft, 2019, p8-9). As such, researchers foreground that designers propose a need for iterative approaches to policy design in which not only the idea for policy intervention requires iteration, but also the problem statement on which it is built. For example, in their article reporting on their survey study into public sector innovation labs, design researchers Vaz and Prendeville claim that *“prototyping will necessarily mean a non-linear process where several iterations of the solution, including the further reframing of the problem, are likely to occur”* (Vaz and Prendeville, 2019, p154).

As design researchers increase their understanding of current practices in policy design, Policy scholars are gaining a more nuanced understanding of Design. *“Such a perception of Design is,”* as Van Buuren et al highlight, *“clearly distinct from the (boundedly) rational and deductive idea of policy design”* (Van Buuren et al, 2020, p7). As such, the literature acknowledges the epistemological differences that exist between the domains of Policy and Design and how these may cause barriers to the contribution of design research to evidence and decision-making practices in policy design. In the subsequent Section, I will therefore explore in more detail the consequences of understanding Design as an inquiry-based process during which an understanding of problem and solution are developed in parallel.

2.2.1.2 Co-evolving problem and solution in policy design

As foregrounded in the Section 2.2.1.1, researchers in the *Design for Policy* discourse argue from the perspective that policies should not be seen as static outcomes of a policy design process. Furthermore, several scholars state that it may be necessary to develop policy through taking generative approaches to problem-solving rather than following deductive lines of reasoning. Policy prototypes may, consequently, be understood to generate knowledge regarding their implementation rather than committing to a design where the resulting impact is unknown. Siodmok observes that *“in government, policy successes and failures can often be traced back to decisions made in the first 10% of the process”* (Siodmok, 2014a, p28). This too, is recognised by the think tank ‘Institute for Government’, which researches policy practices and advises on how to render these more effective. They state that *“the roots of a policy’s success or failure often lie in decisions made early on”* (Institute for Government, 2015).

In parallel with McGann’s statement, it appears that the ‘failures’ early on in the process may be the result of defining a problem which subsequently is unlikely to be further refined throughout the process. McGann states:

At the centre of positivist approaches is the hope that policy problems can be reduced to technical problems that can be rationally solved through greater precision in diagnosing problems and more rigorous understanding of causal linkages. (McGann et al, 2018, p254)

Clarke and Craft position policy design as a process after “*the politically loaded acts of problem recognition, definition, and goal articulation are complete*” (Clarke and Craft, 2019, p14). Whilst the authors seem to suggest that this allows policy design to focus on developing a solution, defining a static problem may prevent policymakers from adjusting the definition once a better understanding of the problem is developed. Furthermore, assumptions that may inform an initial problem definition are unlikely to be reconsidered as a process unfolds. As Siodmok highlights, “*many assumptions [... are] already built into the brief by the time*” it comes to designing a policy (Siodmok, 2014a, p29).

To get an impression of the type of policy problems designers have been able to work on, Bailey and Lloyd highlight several examples:

The policy problems addressed included questions such as how to keep people in work when they have a long-term health condition or disability, how to encourage divorcing couples to mediate rather than go to court, how to improve the experience of victims reporting crime, how to increase the take-up of free early years childcare, and how to improve the system for assessing the policy profession itself. (Bailey and Lloyd, 2016a, p16)

What can be observed is that the policy issues are already phrased in terms of concrete ‘how to’ questions, in which several decisions and assumptions such as the defining of policy target groups have already been built in. Although this is not a complete list of all the policy issues addressed through Design methods, comparing these policy issues with the promise of Design being applied to, as Mintron and Luetjens argued, “*complex policy problems*” only happens after the policy problem has been defined (Mintron and Luetjens, p392 2016).

Alongside assumptions about the problem, according Head and Alford, a fixed problem definition may also make assumptions about the solution. In their article exploring the implications of wicked problems on public policy and management, the authors argue:

Problem definition tends to imply a preferred solution. Some caution is therefore required with any proposed methods or approaches for addressing wicked problems, as they are likely to be provisional and incomplete in various degrees. (Head and Alford, 2015, p715)

As part of their review of empirical studies of Design in policy, given the complex nature of policy problems, public administration researchers Hermus and colleagues argue that

instead policy design may need to adopt a process in which policymakers “*move back and forth between problem and solution, working iteratively and allowing the problem definition to evolve in light of what emerges as a possible solution*” (Hermus et al, 2020, p23). Or as Mortati phrases it, a “*pragmatic process of continuous adjustment of ‘preliminary problem definitions’*” (Mortati, 2019, p7).

Iterating problem definitions, in addition to taking iterative approaches to developing policy solutions (as discussed in Section 2.2.1.1), suggests a fundamental shift from linear problem-solution approaches to policy design. According to policy scholars Mintron and Luetjens, such an approach to policy design “*does not start with a presumption of a known answer, or even a well-defined problem*” (Mintron and Luetjens, 2016, p392).

Furthermore, Design is presumed to consider the wider system, in which a design will be situated alongside developing problem and solution processes. Based on their interpretation of Brown and Cross’ research examining methodological differences between design research and scientific research (Brown, 2011; Cross, 1982), Hermus and colleagues understand designers to consider the wider “*problem or design space: those aspects that can be influenced by their design*” (Hermus et al, 2020, p23).

These arguments make a case for developing policy design processes that engage with policy problems in a more holistic manner, co-evolving problem and solution throughout. Clarke and Craft argue that designers prioritise synthesis to bring “*complex phenomenon together and [assess] them as a whole*” and contrast this to the compartmenting of complex problems in conventional policy design:

Typically associated with the problem-solving methods that underpin policy sciences, the analytical-logical mindset asks the thinker to split complex phenomena into manageable pieces that can be assessed rationally, logically, and through deductive reasoning. (Clarke and Craft, 2019, p8/9)

Whilst this contrast suggests epistemological differences that may need to be overcome between Policy and Design approaches to policy design, it is important to highlight that the linear ‘*stagist*’ idea of policy design – dating back to the 1950s - is considered outdated and is generally rejected as an unrealistic representation of the policymaking process (Dorey, 2005, p4-7). According to policy scholar Dorey, within Policy studies it is recognised that the depiction of “*policymaking as a linear process, with a clear*

beginning, middle and end” neglects the reality in which such stages blend and are revisited (Ibid., p5). This suggests that problem and solution definition may develop more in parallel than can be derived from policy design literature. Therefore, there seems to be a need to gain insight into the practice of policy problem and solution definition processes in order to understand whether there may be space for Design practices of co-evolving problem and solution.

2.2.2 Power structures in approaches to policy design

In order to better understand analysis and synthesis approaches to policy design, in this Section, I look into the role of power structures in policy design and how these may impact approaches to problem-solving. I review authors’ understanding of who has power in evidence and decision-making processes. The review foregrounds two tensions. Firstly, the promise of human-centred approaches to policy design are seemingly challenged by current policy-centred approaches to validating decisions. Secondly, given a focus on the intelligence of the policy expert, current policy design practices may face barriers when aiming to introduce their co-creative approaches to evidence production and decision-making. Arguably, a central factor to cause these tensions is the hierarchical power structures in existing policy practices which are in contrast to the more egalitarian approaches evangelised by Design.

2.2.2.1 Human- and policy-centred validation in policy design

A central driver for design research is the desire to understand citizens and citizen experiences in the design context. With design research further developing its human-centred, participatory and co-creative practices, these approaches aim to bring citizens in as a central focus within policy design processes. Decision-making and knowledge gathering become collaborative practices of co-creation and means that, as Hermus et al state, in design research *“local knowledge is equal to scientific knowledge and the perspectives are to be integrated”* (Hermus et al, 2020, p34).

The introduction of Design methods to policy design builds on this perspective and informs the promise of human-centred approaches to solving public problems more effectively. In this argument, taking a human-centred approach is considered to generate knowledge of the context. A better understanding of the context of a problem,

in turn, is essential for a policy *“to be effective”* (Siodmok, 2014a, p25/26). As Siodmok states, *“any new policy or strategy needs to be intrinsically linked to the context within which it operates”* (Ibid.). Moreover, according to Mintron and Luetjens, *“design thinking holds the promise of bridging the common gap in public administration between the goals of policymaking and the experiences of citizens as they interact with government services”* (Mintron and Luetjens, 2016, p392).

Affected citizens are considered experience experts of public problems, as they are situated within the context of the issue, and as such, according to Design commentator Bason, they are seen by designers *“as uniquely positioned to judge whether a design solution is valuable or not. [...] The policy potential is of viewing people ‘not as bundles of needs to be served but as potential assets in the system’”* (Bason, 2016, p230).

Bringing in citizens affected by a policy decision as experts, however, comes with a demand for new skills and resources in policy design practices. In the words of Clarke and Craft, amongst others, this *“may mean building in skills for user engagement:”*

This form of problem exploration demands deep research into users, their context, and their lived experiences with services, organisations, processes, and products, and draws on a range of methodologies. (Clarke and Craft, 2019, p8-9, 17)

Central to Clarke and Craft’s evaluation of design thinking practices in policy is their critical perspective on the ability of Design methods to be operating within the constraints of policy. Policy studies researchers emphasise how Design methods have yet to prove their effectiveness at scale, noting the skill and resources they need to operate even on a small scale. For example, Clarke and Craft argue that, *“given the sequencing, time horizons, and resource intensity it requires[,] some policy problems will not lend themselves to design thinking [as] they require immediate decisions or because the resources required for extensive user testing, iteration, and internal and external collaboration are not available”* (Clarke and Craft, 2019, p15). This highlights how policy design practices are *“often subject to very strong constraints coming from the use of public money”* (Mortati, 2019, p9).

Coming at this issue from a design research perspective, Kimbell and Bailey note that this presents a major challenge for Design methods to better operate within these

constraints. Designers working in policy design will need *“to be able to work at different scales and engage effectively with the politics, complexity and systemic nature of policy development”* (Kimbell and Bailey, 2017, p221). The scale at which designers aim to understand a problem is likely to inform the scale at which they operate. Based on this, Mortati notes:

If Design scholars are mainly concerned with a micro-level understanding, that is the design skills and tools for policy implementation, policy design scholars focus on a macro-level analysis, that is the political and technical considerations useful to formulate policy. (Mortati, 2019, p788)

Furthermore, given the vast range of policies that operate simultaneously, the need to consider decisions at scale in policy design is caused by the need to understand how different policies interact. A decision made in the design within one area may trigger a *“ripple effect [...] on related policy designs, [which] may inadvertently create new policy problems, or undermine their efforts to achieve certain objectives”* (Clarke and Craft, 2019, p16).

Their overall understanding of the use of Design methods in policy design leads Craft and Clarke to conclude that *“there has been little critical appraisal of design thinking from a public governance perspective”* (Clarke and Craft, 2019, p5). Whilst the authors come from a policy perspective, design researchers also recognise this observation. Bailey and Lloyd identify there is a *“potential for critical readings of this trend from a broader government perspective”* (Bailey and Lloyd, 2016b, p3620). Again, within the design research community in *Policy for Design*, there seems to be a lack of insight into *“the practical act”* of policy design to understand how Design methods may contribute to policy design (Clarke and Craft, 2019, p14).

Clarke and Craft emphasise that this lack of practical knowledge is particularly problematic when politically contentious decisions have to be made. The authors’ argument here, is that some decisions need to be made from the larger scale perspective of government. As a consequence, decisions based on that perspective may have a detrimental effect on specific groups of citizens. They argue that designers may avoid taking such decisions altogether, by focusing on less contentious policy issues. What they seem to neglect are the implications of early problem definitions on a

designer's ability to challenge decisions made at the start of a policy design process (as discussed in Section 2.2.1.2).

2.2.2.2 *Co-creative evaluation in policy design*

The Design discourse in *Design for Policy* is predominantly grounded in the view of Design as a co-creative practice. In this tradition, designers – both practitioners and researchers – take a collective approach to problem-solving, focusing on the use of co-creative methods, which value participatory knowledge production and decision-making. This collaborative approach to problem-solving, Lloyd refers to as a being a dialogue. Paraphrasing Schön's idea, Lloyd states: "*Designers [...] work through dialogue; with clients, with collaborators, with stakeholders, with themselves, but also with method*" (Lloyd, 2019, p171).

The majority of the accounts therefore focus on introducing collaborative practices that enable policymakers to take a human-centred perspective in policy design. Standing out from the authors' statements are the interest in collective, iterative and cross-level processes for policy design. These characteristics have been explored in Section 2.2.2.2 from a problem-solving perspective. Here, I will focus on the impact of existing power structures on these visions for policy design which appear to be grounded in cultural aspects of current practices.

Participatory methods have received attention within policymaking practice; as Van Buuren and colleagues state: "*Collaboration is sought with civil society to come up with solutions for contemporary problems, by organising processes of co-creation and social innovation*" (Van Buuren et al, 2020, p6/7).

According to Mintron and Luetjens, a co-creative and human-centred approach to policy design "*encourages end users, policy designers, central departments, and line agencies to work in a collaborative and iterative manner*" (Mintron and Luetjens, 2016, p392).

This is in line with Bason's 2006 envisioning of policy design, in which policy is to be designed through "*an interplay between policymakers at different levels of the governance system, interest and lobby groups, external experts, [...] [and] end-users such as citizens or business representatives*" (Bason, 2016, p5).

Nonetheless, Bailey and Lloyd emphasise the impact of hierarchical structures on decision-making, which suggests that the 'different levels of government' do not work collaboratively and instead have an authoritarian relationship between the actors operating at these different levels: *"People make overt statements about their 'grade' and the implications of that, and exhibit a general upwards-facing orientation"* (Bailey and Lloyd, 2016b, p3624, p3626). A consequence of such vertical decision-making structures, is that those actors that are not part of the hierarchical structure may not be involved in decision-making processes. Based on their survey into the use of Design methods in public sector innovation labs, Vaz and Prendeville found that decision-making is still *"reserved to a limited set of policy actors."* (Vaz and Prendeville 2019 p153) What may be concluded, as Kimbell and Bailey suggest, is that the collaborative approaches suggested for policy design *"may be at odds with prevailing organisational culture and practices."* (Kimbell and Bailey, 2017, p219)

Further examining this, Bailey and Lloyd conclude that *"the onus is very much on the capability of the individual."* (Bailey and Lloyd, 2016b, p3625) According to their study with senior civil servants, the notion of *intelligence* plays an important role in this. Intelligence seems to be understood as the use of knowledge and experience (the expertise) as the measure for one's ability to make adequate decisions. Therefore, as long as those impacted by a public problem are still considered *"non-experts"* in policy design processes, the authors argue that affected citizens seldom participate in evidence or decision-making processes in policy design. (Bailey and Lloyd, 2016, p3625) Instead, the expertise that affected citizens could offer may be *"used to fine-tune a design [process] primarily based upon [using] scientific evidence"* (Hermus et al, 2020, p34). This observation is in stark contrast to the Design approach that *"implies maintaining a constant feedback loop with these users throughout the process"* (Vaz and Prendeville, 2019, p154).

Reading policy commentator Jill Rutter's report on *'opening up policy making'* from this perspective, her report for the *Institute for Government* think tank unsurprisingly concludes that *"the policy-making norm is for policy to be developed in one government department (or maybe by a number of departments, under a lead), behind closed Whitehall doors"* (Jill Rutter, 2012, p5). As such, opening up policy design to a wide

range of experts and approaching intelligence as a collective ability may be perceived as “*counter-cultural*” to current individual and vertically oriented approaches to evidence and decision-making in policy design (Jill Rutter, 2012, p5).

What has become clear throughout this literature review so far is that there are differing perspectives on how policy is designed most effectively, and that these views may be grounded in organisational and cultural structures as much as epistemological beliefs. With Section 2.2.2.1 foregrounding how both human- and policy-centred practices may need to be considered, it could be argued that Design methods do not present a “*wholesale alternative*” to existing practices in policy design (Clarke and Craft, 2019, p6). Instead, when Design focusses on introducing human-centred and co-creative methods to understand affected citizens and their experiences, there may be a need for a more balanced aim. As argued by Clarke and Craft, “*given the complexity of the policy issue, and the political controversies and ideological conflicts it involves, user input will inevitably produce a mixed bag of competing needs to weigh*” (Ibid.).

Therefore, the observation by Kimbell and Bailey is of increasing importance when promoting Design methods for policy practices. The authors suggest that the organisation and cultures of policy design practices should be considered when arguing for change in professional practices:

Design’s traditional focus on experiences and serendipitous creativity neglects deep understanding of government systems and may be at odds with prevailing organisational cultures and practices. (Kimbell and Bailey, 2017, p219)

Kimbell and Bailey’s argument here indicates a turning point in the perception of Design’s potential in policy design practices: They caveat that the promotion of Design methods cannot continue to advocate naïvely for a better understanding of citizens and citizen experience. Instead, Design’s focus for policy should consider how their methods need to be appropriated in order to acknowledge the implications of organising and operating government systems. It is therefore likely that, as Mortati argues, in order “*to be more effective, participatory design and co-design should be re-politicised to scale up the work done with communities into legislation changes*” (Mortati, 2019, p5).

In conclusion, I observe the overarching argument within *Design for Policy* is moving away from the radical and complete overhaul of existing policy design practices. Instead, in recent years, authors have increasingly focused on arguing that only through a balanced approach, may designers successfully integrate new practices into existing traditions and cultures of the policy design profession. In Section 2.3, I will further unpick the literature on how change initiatives have been organised and positioned in order to introduce Design methods to policy design practices.

2.3 Balancing Policy and Design within policy design

As has become clear in the previous two Sections, given particular understandings of ‘evidence’ in evidence-based policymaking (EBPM) practices, and the development of problem-solving practices since the 1950s, the introduction of unconventional knowledge and expertise gained through Design practices into policymaking processes is a complex endeavour. Viewing the compatibility of Policy and Design approaches from an epistemological perspective, the picture painted by the literature at the intersection of the two fields suggests unsurmountable divisions. McGann and co-authors even go as far as saying that *“growing interest in evidence-based policymaking and the application of ‘design thinking’ to policymaking [...] sit uncomfortably together”* (McGann et al, 2018, p249). The discerned frictions between practices of evidence-based policymaking and Design may as much be a result of epistemological contradictions as it is – in Bason’s words - *“an inherent clash between the logic of administrative organisation and sensibilities of designers”* (Bason, 2014, p5). Building on this, in this Section of the literature review I review more closely the policy design cycle and the meaning given to Design from the perspective of organisational change. As part of this, I reflect on how organisational cultures of central government are described by those who discuss the applicability of Design for Policy and explore how professionals operating at the intersection of Design and Policy aim to elicit change in current practices.

2.3.1 Innovating organisational cultures

In this Section, I consider the complexities of organising processes and practices at the scale of government. I review how researchers have addressed these complexities, and their views on the impact they have on the influence and role Design in policy design.

From an organisational innovation perspective, Junginger examines the complexities of government, and identifies “*four distinct systems*” that interact with each other to, together, compose a complex system:

People live and act within a social system; resources reside in the realm of physical systems; structure represents the management or decision-making system; and, finally, purpose belongs to the value systems that provides the rationale for a particular undertaking. (Junginger, 2008, p32)

As discussed throughout Section 2.1 and 2.2, literature on *Design for Policy* have argued for changes across the four systems identified by Junginger. Current practices of policy decision-making may have to change in favour of iterative approaches in which problem and solution definition co-evolve. A change in values may lead to the use of situated knowledge in evidence-based practices and the application of speculative approaches. Taking human-centred, situated and iterative approaches to policy design will consequently require different resources such as skills in user research and prototyping. Whilst the introduction of Design methods is faced with challenges as they aim to change each of these individual systems, the complexity of these systems combined as a whole, presents particular challenges. As such, changing existing evidence and decision-making practices in policy design will require changes in “*the most complex system: the organisation itself*” (Ibid., p32). I discern that complexities of organising government are likely to influence an individuals’ ability not only to change their practices, but also impact how change is initiated at an organisational level.

In her paper exploring how product development may support organisational change, Junginger suggests that the bigger an organisation the more complex it becomes to be organised – differentiating between organising as a continuous activity and being organised as a final state:

Looking at the problem of organising from the perspective of the individual human experience allows us to redefine the meaning of being organised: being organised means to have prepared the path for a specific action. Implicit in this

definition is the recognition that an organisation is always organising yet seldom organised. (Junginger, 2017, p32)

Hence, an organisation as large and complex as central government may always be organising rather than operate from a fixed structure; or, as Mortati states, the organisation may need to be seen as an “ecosystem” (Mortati, 2019, p785). Likewise, Dorey states that the reality of policymaking is “messy” (Dorey, 2005, p47). For example, politicians and policy makers have different roles and responsibilities in policy design processes. As Mortati states, “*‘policymakers typically have a technical role in public institution even if in strict connection with politicians’*” (Mortati 2019, p783). Consequently, as found by Bailey and Lloyd, the “*relationships between the civil service and politicians are subject to some rather complex power dynamics*” (Bailey and Lloyd, 2016, p3624/3626).

The closest relationship between civil servants and politicians is that of a permanent secretary and their minister. The permanent secretary is the most senior civil servant in a government department and gets appointed by the minister. In this particular relationship, policy commentators Hallsworth and colleagues (from think tank Institute for Government) found a strong focus on managing the policy process, and little for the policy issue itself:

Many of our interviewees pointed out that senior civil servants are consumed with managerial tasks, and thus have little time to think about policy issues. [...] [A] recent study estimated that permanent secretaries spent only 5% of their time on policy issues, as opposed to 40% on management. (Hallsworth et al, 2011, p63)

This focus on the organisation of policy is also found in policy design processes in particular by Hermus and co-authors. Their “*systematic literature review [of 92 studies] into the empirical applications of [D]esign*” found that “*in 32.6 per cent of articles, the design process was focused on the inner workings of government; on the management of public organisations or policy processes itself*” (Hermus et al 2020 p21/28). According to Bailey and Lloyd this focus also informs the daily activities of policy makers. They argue that a working day in policy design is likely to “*revolve around highly ordered meetings and texts*” in which “*the format and structure of the meeting dictated the nature of the policy decision, rather than the other way around*” (Bailey and Lloyd, 2016, p3627/3628). Through the accounts of Bailey and Lloyd, Hermus et al, and Hallsworth et

al, I understand this organisational culture to be a consequence of responding to organisational complexity. This may furthermore lead to a professional's abilities and willingness to adopt change in their practices, as Bailey and Lloyd found: *"Whilst interviewees were prepared to admit the limitations to traditional ways of making policy, and the need for change – there is also a strong sense of loyalty to this institutional culture"* (Bailey and Lloyd, 2016, p3625).

Consequently, Peters argues, Design approaches to policy design may be seen as a competitive to current practices: *"Even if the existing institutional arrangements do welcome more innovative policy options, the environment remains competitive, and the newer approaches must be prepared to demonstrate the added value of their approach to design"* (Peters, 2020, p144).

As such, since in this thesis I investigate how design research may contribute to evidence and decision-making practices in policy design, findings will need to be interpreted keeping in mind the complexities of organising and innovating large scale organisations. As McGann and co-authors highlight, *"how do [Design approaches to policy] relate to other developments in policy design such as the growing interest in evidence-based Policy and Design experiments?"* (McGann et al, 2018, p249) This thesis will therefore address research questions that position Design methods within current policy design practices, in order to inform a more nuanced understanding of Design's potential for policy design.

2.3.2 The meaning of Design in policy

As addressed previously, advocating that Design will bring human-centred perspectives to the centre of policy decision-making, Hermus et al observe that *"[D]esign is more and more applauded as a creative and collaborative approach that (co-)create policies and services that are more responsive to the needs of citizens"* (Hermus et al, 2020, p35).

Even so, throughout this Chapter thus far, it has become clear that Design is a much more diverse practice than being solely human-centred. For example, Van Buuren and colleagues identify three approaches which may be understood as *design mindsets*: *"Design as (bounded) optimisation", "design as exploration", and "design as co-creation"* (Van Buuren et al., 2020, p11).

The increasing influence of design in government is apparent as, in 2016, Louise Downe, Director of Design for the UK Government reported how Service, Interaction, Graphic, Content designers work on the design of government services. In addition to these roles, Speculative and Strategic designers have been hired by UK Policy Lab, expanding the roles designers take on in government. As such, it becomes clear that a wide range of Design practices is introduced to government. (Downe, 2016; Siodmok, 2014)

With a diverse set of meanings of what Design entails, according to Bailey and Lloyd “*the promise of [D]esign is not so clear-cut*” (Kimbell and Bailey, 2017, p219). Figure 2.1 presents a summative overview of what is understood as a *Design* perspective in the context of evidence and decision-making in policy design, and how these are different from current practices in policy.

Design	Policy
Generates data about the future (Siodmok, 2014a)	Historical evidence or data (Bailey and Lloyd, 2016)
Plausible but provisional (Kimbell, 2015)	Understanding the range of potential solutions that are acceptable (Bailey and Lloyd, 2016)
Learning through action, testing, or immersion in an environment (Bailey and Lloyd, 2016)	Knowledge generated through description, Analytical and critical capacities of an individual (Bailey and Lloyd, 2016)
Non-expert input (Bailey and Lloyd, 2016)	Asking an expert (Bailey and Lloyd, 2016)
Micro-level (Mortati, 2019)	Macro-level (Mortati, 2019)

Table 2.1 Table listing differences Policy and Design.

An overview of the identified differences in understanding of evidence and decision-making between Design and Policy so far, and which may be united in future policy design practices.

This table illustrates that, whilst a core value to Design is to understand citizens and citizen experiences, Design as an approach to problem-solving is more diverse. As Mintron and Luetjens highlight, Design “*is a concept that relies on practice to give it meaning*” (Mintron and Luetjens, 2016, p399). The following Section therefore aims to gain insight into the introduction and meaning of Design in policy design practices so far. In line with Hermus et al, the literature at the intersection of Design and Policy is

reviewed to explore *“what kind of [D]esign applications can be found in the field of public administration and how can they be understood in terms of goals, processes and outcomes”* (Hermus et al, 2020, p21).

2.3.2.1 **Public Sector Innovation Labs**

A prominent strand of work in practice is the establishing of ‘policy labs’ – or in more overarching terms given by McGann and co-authors: Public Sector Innovation labs (PSI-labs) (McGann et al, 2018). According to Bason and Carstensen, these units have been *“set up within [and outside of] public sector organisations with the explicit purpose of supporting innovation efforts”* (Bason and Carstensen, 2012, p1).

In her introduction to her 2015 report reporting on her academic fellowship at UK Policy Lab, Kimbell describes how design-based labs for government and public sector contexts were *“inspired by the success of design-centric firms such as Apple and Samsung, and by service firms delivering customer experiences over multiple touchpoints.”* As part of this, she continues, *“ideas such as user-centred design, user experience, service design and design thinking have been taken up in central, local and regional government.”* (Kimbell, 2015, p5)

Furthermore, Lewis and co-authors argue - in their article on how design thinking compares to rational and participatory approaches to policymaking - how these PSI-labs have been *“described as new boundary-crossing organisational forms, or ‘innovation intermediaries’ [...], in that they are designed to overcome a range of barriers that make innovation and cross-cutting coordination difficult within public sector bureaucracies”* (Lewis, McGann and Blomkamp, 2020, p118). As such, these labs function as safe spaces for experimentation and innovation in policy design practices, addressing several of the issues discussed throughout the previous Sections of this literature review (Hallsworth et al, 2011; Van Buuren et al, 2020).

For example, UK Policy Lab based within central UK Government (linked to the Cabinet Office until their move to the Department for Education in 2020), functions as a *“shared policy resource [and] creative space where policy teams could draw on techniques such as [D]esign-based thinking and ethnography to approach policy problems in a new way.”* (Gov.uk, 2019, p15) Established in 2014, and *“set up as part of the civil Service Reform*

plan”, it is intended to be an “*experimental space, [that facilitates] trying out new techniques and seeing what works*” and an “*environment to test new policies before they are implemented*” (Siodmok, 2014c).

In 2018, the Estonian government established its Public Sector Innovation team. The team was initiated after the ‘Public Sector and Social Innovation Task Force’ – a joint initiative of six ministries – recommended such a team to be set up. Existing of 4 members, the innovation team develops “*thinking and practices that are not too common in the public sector*” (Innovatsioonitiim, n.d.). Core remits for the small team are to deliver service design training for civil servants, establish an innovation community, and develop new human-centred approaches for government, and learn from and iterate on new methods for public sector.

Furthermore, the EU Policy Lab too focuses on “*testing, experimenting and co-designing*” (EU Policy Lab, n.d.) when bringing in participatory and solution-oriented methods from design into policymaking. The team consists of 12 people. The four “*dimensions*” of work done by this PSI-lab are: 1) Foresight – “*explor[ing] long-term futures and shared visions for policymaking*”; 2) Modelling – focused on documentation through “*baseline scenarios, uncertainty and sensitivity analysis, and multi-criteria evaluation*”; 3) Behavioural Insights – “*identifying behavioural elements in policies and proposing behavioural levers to increase their effectiveness*; and 4) Design for Policy. It is in the fourth dimension of work that there is an explicit mentioning of Design, stating the use of Design thinking for “*people and solution-centred processes to help stakeholders to innovate.*” (Ibid.)

Through a survey study that reached out to 30 PSI-labs, Vaz and Prendeville found that these teams varied “*in form, structure, scope and origin*” (Vaz and Prendeville, 2019, p146). Looking more closely into their practices, several authors identified a wide range of design tools and methods for engaging with different phases of policy processes.

Bailey and Lloyd list several Design methods used in policy design:

Design [in the policy context] refers to: modes of research that explore lived experience, often based on design ethnography; collective inquiry; the use of provocations and speculations as a research probe; generative techniques drawn from co-design and co-production; collaborative creativity; modelling techniques

such as prototyping, and agile project methodologies. (Bailey and Lloyd, 2016, p3622)

Vaz and Prendeville present a similar list, including amongst others, the use of *“personas [and] gamification”* (Vaz and Prendeville, 2019, p152). Whilst these lists suggest a clear understanding of design tools and methods in PSI-labs, Vaz and Prendeville observe that *“the introduction of [D]esign in the public policymaking process does not appear to be attached to the use of specific Design methods, but rather to certain ‘designerly’ mindsets, namely, ‘user-centredness’, ‘co-creation’, and ‘exploration’”* (Ibid., p154). Through their survey, Vaz and Prendeville illustrated that there does not seem to be clarity on *“the interpretation of what constitutes a [D]esign method/tool:”*

Without delving into what makes a [D]esign method, it is difficult to conceive a trained designer claiming ‘sociology’ or ‘psychology’ being one. Likewise, ‘design thinking’ or ‘user - centred design’ are seldom referred to as Design methods/tools in the literature. Nevertheless, participants expressed that [D]esign is being used in their organisations. (Ibid., p143)

The authors emphasise that a lack of understanding of what Design methods constitute, consequently result in *“scarce knowledge of the specific [D]esign activities that ultimately produce innovative policies”* (Ibid., p144). With PSI-labs appearing to make up a majority of the initiative to introduce Design methods to policy design practices, a closer look into their organisation is likely to provide insight into the meaning of Design in policy practices.

According to Lewis and co-authors, PSI-labs are *“designed to overcome a range of barriers that make innovation and cross-cutting coordination difficult within public sector bureaucracies”* (Lewis, McGann and Blomkamp, 2020, p118). Nonetheless, the authors state that *“many PSI labs are not formally part of the public sector yet work extensively with governments”* (Ibid., p117). Several other authors also emphasise that the organisational nature of PSI-labs may not overcome but rather *bypass* institutional challenges of policy design. Policy scholar Peters reports that these labs *“tend to exist outside government hierarchies”* (Peters, 2020, p131). Furthermore, Vaz and Prendeville argue that such labs have been criticised for *“short-circuiting the traditional decision-making structure by circumventing the political arena”* (Vaz and Prendeville, 2019, p147).

As such, PSI-labs appear self-contradictory when applied as spaces for innovation in policymaking practices. On the one hand, they are created as a safe space for experimenting with and exploring new methods for policy practice, whilst on the other, these spaces are criticised for their position outside of the constraints of policy design. Therefore, in the following Section, I conclude this literature review by summing up the learnings from this literature and taking a closer look into the possibility of approaching *Design for Policy* as a collaboration between the two fields.

2.3.2.2 Collaboration of Policy and Design in policy design

In the first Section of this Chapter (Section 2.1), I focused on unpicking the notion of knowledge in policy design. I reviewed literature at the intersection of Design and Policy to better understand characteristics and roles that knowledge has in policy practices. There appears to be a challenge in policy design when considering the type of representation that is sought in order to inform policy decisions. Generalised knowledge may allow for a macro perspective, the argument for situated knowledge highlights the need to understand the impact of policy decision on citizens' lives. Furthermore, policy issues may differ strongly from one another. Whilst in certain cases policy decision can be based on historic knowledge, some policy topics may require other, more future-oriented, forms of knowledge to inform decisions. Overall, the literature shows that both Design and Policy scholars and commentators agree that policy design practices are unlikely to follow the scientific method. This as the synthesis of knowledge requires a degree of interpretation when it is used to inform decisions regarding a specific policy context.

Exploring the notion of knowledge in policy design furthermore foregrounded the role of organisational culture in its evidence and decision-making practices. Although epistemological discussions appear to separate Policy and Design approaches to policy design, the cultural influence of the organisation of government highlights a need for research positioned at the intersection of Policy and Design. As Mortati states:

Vital is an appreciation of what the policymaker's job requires to balance efficiency in the use of public resources and uncertainty in the nature of public problems, contrasting characteristics when seeking public innovation. (Mortati, 2019, p10)

Literature at the intersection of Policy and Design highlights that policy design should be understood as a professional practice operating within an 'ecosystem' that is 'messy' rather than organised. Furthermore, whilst policy makers are described to have a 'technical role', they are simultaneously subject to 'complex power dynamics' that exist between civil service and politicians. And, whilst recognising the need for change in policy design practices, policy makers are likely to follow particular practices due to the need to follow current systems within Government in order to progress the design of policy.

The second part of this literature review (Section 2.2) focused on analysis and synthesis approaches in policy design, again, from the perspective of applying Design methods to evidence and decision-making practices in policy design. Design methods appear thus far to have influenced the head and tail of policy making: Service design has been introduced to policy implementation after the policy design process (tail)¹⁸ and PSI-labs focus on influencing problem-oriented phases of the policy design process (head). As found by Vaz and Prendeville, a majority of PSI-labs work within policy design, focussing on problem-oriented phases early on in policy making processes:

A majority (>85%) of the surveyed organisations claim to be intervening at the problem identification stage of the policymaking cycle, and this resonates with the use of a [D]esign approach. (Vaz and Prendeville, 2019, p153)

The 'middle' phases of policy design, policy formulation and making decisions with regards to the proposed solution seem to be influenced less by Design. Bailey and Lloyd found *"the decision-making stage of the policymaking process is still reserved to a limited set of policy actors."* (ibid.) According to Mortati:

Rare remain the attempts at intersecting [D]esign literature and policy studies to reflect critically on how [D]esign could support processes of policy formulation, on the conditions under which it can have higher impact and be institutionalised in policymaking. (Mortati, 2019, p11)

According to Clarke and Craft, when the inner workings of Government remain unacknowledged and a human-centred approach is argued for over a policy-centred

¹⁸ The introduction of service design to policy implementation is considered out of the scope of this thesis, as the implementation of policy is not considered part of policy design. Section 2.2.1 addresses the discussion on whether policy implementation should become part of an iterative approach to policy design.

approach, Design may struggle to change practices of policy formulation and decision making.

To respond to this supposed shortcoming of Design, the authors highlight the need to consider the impact of nested policies (how a decision in one can impact another policy), and the impact of implementing decisions at a nation-wide scale. From the tensions that surface when reviewing accounts from Policy and Design research, I discern an overall need to gain better insight into the intersection of Policy and Design methods in policy design in practice. Through gaining a better understanding of how Design and Policy may collaborate through findings from practice, recommendations can be made on – for example – how policy design may co-evolve problem and solution.

2.4 Conclusion

This literature review has made clear that both Policy and Design practices are multi-layered and complex. A second overall insight from this literature review is that there is a shift in the promise of *Design for Policy*. The promise that Design could provide an alternative to current practices in policy design appears to be replaced increasingly with a more moderate view of the potential of *Design for Policy*. Authors in both Policy and Design domains argue for a collaborative approach at the intersection of the two fields. For example, Clarke and Craft state a collaborative approach that “blend[s] these two perspectives” may “add thoughtful nuance to design thinking’s claims” and “[help] policy designers produce more adaptable designs, better appreciate the behavioural dynamics of public sector design, and leverage networked approaches to social problem solving” (Clarke and Craft, 2019, p17). Furthermore, Mortati calls for the development of a *meso-level* practice between Policy’s macro and Design’s micro perspective “to bridge the academic outreach/divide” and “[connect] new public resources (data and people) with new governance structures” (Mortati, 2019, p785). The recent statements of these authors seem to bring the question raised by Bason in 2006 back to the centre of the discourse:

Ask about the intersection of [D]esign and [P]olicy: where are they heading respectively, what are their linkages and how can [D]esign and [P]olicy inform each other? (Bason, 2006, p3)

I subscribe to the implied belief that in order to elicit change within current practices, these first need to be understood and that change is a collaborative endeavour between new and old practices. Therefore, in order to generate knowledge on how design research may contribute to evidence and decision-making practices in policy design, I committed to research the potential for collaboration between Policy and Design to progress current policy design practices. Chapter 3 will focus on the philosophical approach of this thesis in detail.

Chapter 3 Methodology

In this Chapter, I detail the methodology of this thesis. It builds on the opportunities for research identified in Chapter 2 and positions the Studies reported on in Chapter 4, 5, and 6.

In Section 3.1, I discuss the philosophical approach that underpins this research, which draws on constructivism. This part of the Chapter goes into more detail about the role of the researcher as instrument, discussing the importance of reflexivity during the interpretive process. Subsequently, I focus on the influence of context in findings generated through qualitative research, highlighting the need for situated awareness when analysing experiential accounts from participants. Last in this Section is a reflection on how I approach complexity from a constructivist viewpoint.

Then in Section 3.2 I report on the research design. I specify the research methods used to conduct the three studies – semi-structured interviews, participant observation and graphic elicitation. I then describe what data has been collected and address how method and data source triangulation has been applied. After that, I elaborate on the process of data analysis and describe the different phases in the process.

In the last Section, 3.3, I conclude with the ethical considerations in the research design, data collection and data analysis of this research. I then move into part 2 of this thesis, the fieldwork. In Chapters 4, 5, and 6 I report, respectively, on Study 1, 2, and 3.

3.1 Philosophical approach

This thesis is informed by insights generated through a thematic analysis of experiential accounts from professionals working at different parts of the policy design ecosystem. In this Section, I outline several theoretical assumptions made in order to gain insight into how design research may contribute to evidence and decision-making practices in policy design. The methodological choices made to conduct the fieldwork in order to gather these accounts, and to make sense of the data, will be described in Section 3.2.

In order to add to the knowledge on how Design may contribute to policy practices, the aim of this doctoral research is to develop an in-depth understanding of participants' experiences of and reflections on practices in policy design. I therefore have chosen to conduct qualitative research, which allows me to use less structured research methods that enable participants to share their subjective experiences of policy design practices. The nature of qualitative research allows me to unpick and interpret the meaning of participants' reflections and generate findings from which I can derive insight into how design research may contribute to evidence and decision-making practices in policy design. This means that I understand knowledge of the world of policy design to be generated through interpretation of observation and experience, rather than being revealed as a truth through observation. As I research practices of professionals working in policy design, the knowledge I generate is a result of the participants' interpretation of their experiences, and my interpretation of the meaning of their reflections. The individual perception of the world of policy design may differ, as it is likely that experiences and beliefs that influence this perception differ per individual. This informs my position that one's perception of reality is subjective, and that meaning between people's perceptions is achieved through a process of intersubjectivity. As Mir and Watson state, *"realities' are essentially products of different contexts, perspectives, and sense-making mechanisms."* (Mir and Watson, 2001, p1171-1172) Moreover, as Burr states, these 'products' are *"not of objective observation of the world, but of the social processes and interactions in which people are constantly engaged with each other."* (Burr, 2015, p5)

Given that the focus of my thesis is on bringing together the views on policy design from both Policy and Design perspectives, a constructivist approach to the research allows me to acknowledge that the meaning of policy design can differ amongst those who come from Policy and Design domains. Allegedly designers favour a human-centred and iterative understanding of the world of policy design. In turn, policymakers may lean more towards a policy-oriented and linear understanding of the world of policy design. According to the constructivist approach, knowledge describes an understanding of the meaning of experiences and reflections of interactions between people. Constructivism allows me to generate knowledge on what informs the views of Policy and Design professionals. As Braun and Clarke state, in constructivism *"meanings are seen as social*

artefacts, resulting from social interaction, rather than some inherent truth about the nature of reality.” (Braun and Clarke, 2020, p8-9) And thus, in the context of this research, there is no “*mind-independent*” understanding of the world of policy design that can be generated, there is no ultimate truth about policy design to be sought. (Mir and Watson, 2001, p1170)

In my research into how design research may contribute to evidence and decision-making practices in policy design, what can be known about these practices relies on the interpretation of (inter)subjective experiences of researcher and research participants. Consequently, in the activity of deriving meaning from “*the goings-on between people in the course of their [professional] everyday lives*” participants and I play a central role (Burr, 2015, p5). The doctoral research aims to understand the realities of Policy and Design professionals in policy design in order to inform ideas on how to bring the different worlds together. Constructivism allows me, with the input of participants, to generate “*shared versions of knowledge*” that aim to be true in the policy design reality of both Policy and Design (Burr, 2015, p5).

3.1.1 Reflexivity, interpretivism and the researcher as instrument

In support of the constructivist approach that I take in this thesis, my process of interpretation has been “*an ongoing reflexive dialogue on the part of the researcher [...] with regards to [the issue of subjectivity] throughout the analytic process.*” (Braun and Clarke, 2006, p82) Reflexivity is a pro-active process of attending to the subjectivity of researcher and participants that may influence the ways in which they perceive and reflect on experiences. As Sloan and Bowe state, it asks the researcher to be “*conscious of and reflective about the ways in which their questions, methods and subject position might impact on the data or the [...] knowledge produced in a study.*” (Sloan and Bowe, 2014, p1297) Reflexivity does not intend to eliminate subjectivity. Instead, the process aims to create awareness of the knowledge and experiences researchers and participants bring into the research.

Consequently, central to data collection and analysis are methods that allow for acknowledging the influence of the researcher as instrument: “*The fact that behaviour and attitude are often not stable across contexts and that the researcher may play an*

important part in shaping the context becomes central to the analysis." (Hammersley and Atkinson, 1983, p18)

Fossey and co-authors provide a clear description of qualitative research methodology and how the meaning and experiences that people hold can be researched. The authors explain the influence of interpretation and subjectivity from both researcher and research participants, and how this impacts the outcomes from qualitative research. They state that the researcher has an essential role in the meaning-making in qualitative research, as it *"should be concerned with interpretation of subjective meaning, description of social context and the privileging of lay knowledge."* (Fossey et al, 2002, p723) The responsibility of reflexivity, the authors state, *"requires researchers to develop awareness of these preconceptions, to reflect on actions taken, their roles and emerging understandings, [whilst] engaged in the research process."* (Fossey et al, 2002, p728) A focal point in ensuring methodological and analytical rigour throughout the research, therefore, has been to acknowledge the need for reflexivity during data collection and analysis. Given that *"we are part of the social world we study,"* I need to describe my position in it and understanding of it to make valuable academic contributions. As stated by Hammersley and Atkinson, *"this is not a matter of epistemological commitment; it is an existential fact. There is no way in which we can escape the social world in order to study it; nor, fortunately, is that necessary."* (Hammersley and Atkinson, 1983, p14-15)

To conclude, we cannot escape the world we study and the reality we describe is constructed rather than revealed. Therefore, as researcher I am an *"active participant in research."* (Ibid., p18) Consequently, in my process of generating knowledge, I need to ensure a constant reflexivity when synthesising the gathered data. This ongoing process in which I make sense of the experiential accounts should therefore acknowledge the subjectivity of my participants' reflections, and the preconceptions I bring in as researcher. For my research, this means that in constructing knowledge on how design research may contribute to policy design, my insights are interpretations of experiential accounts and should be described as such. In the next Section, I will further detail the implications of taking a constructivist approach to knowledge generation. (The application of an interpretivist process for the analysis of participants' experiential accounts is detailed in Section 3.2.)

3.1.2 Experience, situatedness and the importance of context

A central assumption in the interpretivist process is the importance of context, removing the aim to produce findings that are generalisable across other contexts: *“Qualitative research stresses the importance of understanding findings in the particular contexts and settings of the research. ‘The aim is not to generalise about the distribution of experiences, or processes’”* (Fossey et al, 2002, p730). As such the insights generated from these findings, unlike positivist views, are placed *“in context, rather than turn them into axioms that transcend the confines of time and space”* (Kwan and Tsang, 2001, p1167).

Again, the interpretivist researcher - as a central instrument to the inquiry – is committed to *“a conceptualisation of meaning and knowledge as partial, situated and contextual”* (Braun and Clarke, 2020, p3). One of the early publications on ethnography, authored by Atkinson and Hammersley, describes that this applies to the methodological approach to collecting as well as analysing research data, given the assumption *“that behaviour and attitude are often not stable across contexts.”* (Atkinson and Hammersley, 1983, p18) As such, Fossey et al state, *“qualitative research [...] should also place the findings in context, so as to represent the real world of those studied and in which their lived experiences are embedded.”* (Fossey et al, 2002, p730)

Accounting for the circumstances under which professional practices develop requires a central focus on the organisation in which these practices operate. In the case of this research, I carry a preconception regarding the context of central UK Government: I perceive institutional organisations and their external ecosystem as particularly complex in their modus operandi. I share Junginger’s view regarding the challenge of organising central government:

Organising a random assembly of things in a way that serves the needs of one particular individual is much easier than organising the same items so that they make sense to radically different groups of users. Yet this is the task of large corporations and governments. Charles Perrow points out that any complex system is too overwhelming to be understood by an individual person and that, without functions and processes, complex systems remain inaccessible to people. (Junginger, 2007, p32)

Junginger's description applies to the operations of policymaking but simultaneously goes beyond the organisation of central government. As such, in order to "*develop a full description of the phenomenon being studied,*" I should understand policymaking as a practice beyond how 'policymakers' understand it as their professional role. (Fossey et al, 2002, p726) Aiming to understand the full complexity of policymaking processes, consequently, cannot be limited to the views of a singular group of professionals. Hence, I have chosen to investigate how different groups of professionals "*prepared the path for a specific action*" across the policy ecosystem in order to generate knowledge on how design research may contribute to policy design (Junginger, 2007, p32).

3.1.3 Approach to complexity

Given the multitude of actors involved in the development of policy (of which many have different roles and practices), I understand policy design practices to be highly complex. Rather than aiming to eliminate this complexity in order to study how Design may contribute to policy design, in this qualitative research, my approach is to highlight this complexity and give it a central role in the research. Understanding the complexities of policy practices will be key to understanding the potential contribution design research can make.

To position my approach to complexity, I will recap my philosophical commitments discussed so far. From the constructivist perspective, I understand reality to be constructed and that knowledge is developed through the interactions of individuals within their social worlds. Following an interpretivist process, I acknowledge that in order to make sense of the world, I have to interpret what I experience and observe. My interpretation of these accounts is subjective, and so are the interpretations of the world that participants share with me. Consequently, I have to maintain reflexivity when generating knowledge about the social world I am researching. The reflexive approach emphasizes the importance of context in qualitative knowledge, requiring me to understand knowledge as partial, situated and contextualised. As such, any knowledge generated in this research should be understood in its context: the policy design ecosystem. Into this research inquiry, I bring the preconception that the policy ecosystem is open and complex in nature. I believe individual professionals working in this ecosystem are unlikely to perceive the system in full or have an understanding of it

that is universally generalisable. Therefore, in order to come to a rich description of policy design practices – and how design research may contribute to it – I believe that I should be informed by the accounts of individuals across different facets of the ecosystem. Given the situation of this research endeavour, I believe *“constructivism [to be] a particularly interesting approach, for it facilitates study of the fascinating issues such as how strategies are formed, communicated, implemented, and understood in complex organisations which are buffeted by myriad historical and institutional forces”* (Mir and Watson, 2001, p1173).

I believe it is important to repeat that I subscribe to the belief that the insights presented in this thesis are derived from findings that *“are a product not of objective observation of the world, but of the social processes and interactions in which people are constantly engaged with each other”* (Burr, 2015, p5). As such, I only consider it possible to generate knowledge through revealing the intersubjectivity between the accounts of individuals. According to Mir and Watson, who discuss constructivism by comparing it to critical realism, this is because *“reality is as much a manifestation of our own social construction as it is of natural forces beyond our control and understanding”* (Mir and Watson, 2001, p1173). Moreover, I believe care should be taken when translating insights *“from one context to another,”* hence the insights presented in this thesis should be positioned clearly as they are developed from findings generated in a particular research context – in this case, that of three groups of professionals working in and around policy design (Kwan and Tsang, 2001, p1167).

3.2 Research design

In this Section, I detail the research methods central to my research activities. Overall, the methods I utilise may best be described as an experiential and thematic approach to understanding the complexities of evidence and decision-making practices in policy design. The process is characterised by its inquiry-, across-case and pattern-based nature, in which I have gathered reflective accounts of individual experiences from professional practitioners working within different parts of the policy ecosystem (Braun and Clarke, 2006; Fossey et al, 2002). The research activities focused on making clear the meaning of evidence and decision-making practices in policy design to understand how

design research may contribute to these. The gathered data was analysed to generate a thematic understanding of challenges and opportunities of current policy design practices – these themes are the research findings, which inform the generation of across-case insights discussed in Chapter 7.

3.2.1 Research methods

In this Section, I introduce the research methods chosen for the three studies conducted for this research and I provide the rationale for using each of the methods. The collection of data will be described Section 3.2.2.

3.2.1.1 Study one: Semi-structured interviews

The first study was set up as an initial inquiry into how design research may contribute to the role of Design in policymaking and policy design practices in UK Government. In order to explore the interaction between design research and policymaking, I recruited *policy informers* to gain insight into how they work with Design-oriented approaches and knowledge to contribute to policy. I considered this an appropriate professional practice for this first Study as they operate between design research and policymaking. The interviews were conducted to gain insight into the question:

How might the knowledge and outcomes of design research influence policymaking processes?

I considered interviews to provide an appropriate start to the research, as they facilitate structured conversations “*to elicit participants’ views of their [professional] lives, as portrayed in their stories, and so to gain access to their experiences, feelings and social worlds*” (Fossey et al, 2002, p727). Preparing semi-structured conversation guides (see Appendix C), more specifically, allowed me to keep the interviews open to the topical expertise of the participants as the “*list of questions [...] guide the interview in a focused, yet flexible and conversational, manner*” (Ibid., p727).

The interviews with 11 participants aimed at providing initial insight into the complexities of policy making. The participants had experience of informing policy design as part of their work at universities, think tanks and central government. They made clear the opportunities and challenges that design researchers may experience

when aiming to inform policy through both outcomes and practices of design research. I took a particular interest in the experiential accounts of the participants in order to discern the impact of the complexities on their practices – in contrast to more abstract theorisations of such complexities. Details on the number of interviews, and the position of the participants’ policy informing work within the ecosystem will be discussed in Section 4.2 and 4.3.

The aim of the interview method is to create a conversational space. According to Pezalla and co-authors, these *“conversational spaces are influenced by more than simply an interviewer’s words. To this end, practices of reflexivity must acknowledge the implications of what an interviewer says and how it is said”* (Pezalla, Pettigrew, and Miller-Day, 2012, p181). My initial interviewing strategy was to be a ‘naïvely inquisitive’ researcher, with the aim of triggering a response from the participant to explain – in simple terms - their understanding of and views on the practice of policy informing. The intention was to give the participant *“a sense of mastery over the interview topics of discussion, and to elicit the [participant]’s interpretations of the events or topics of discussion”* (Pezalla, Pettigrew, and Miller-Day, 2012, p173). Towards the end of the interview, a slightly more ‘opinionated’ attitude was adopted in order to confirm my understanding of what had been said, whilst maintaining the mood of the conversation.

According to Watson, *“by carrying out relatively structured interviews, one can discuss a variety of issues in a single ‘big’ conversation with an individual, and produce material which allows comparisons with the accounts of others”* (Watson, 2011, p211). For this reason, I decided to conduct interviews following a semi-structured interview guide:

Semi-structured interviews are used to facilitate more focused exploration of a specific topic, using an interview guide. Interview guides usually contain a list of questions and prompts designed to guide the interview in a focused, yet flexible and conversational, manner. (Fossey et al, 2002, p727)

The interview guides that were developed for the semi-structure interviews followed a basic structure of several introductory questions regarding the participants’ interests and experiences that led them to becoming involved in policy informing. The core of the interviews focused on the participants sharing experiences of challenges and opportunities in informing policy with different forms of evidence, specifically human-centred and future-oriented forms of evidence. The last few questions were geared

towards more visionary responses, as participants were asked to express their ideas on how policy informing practices may and may not change. The interview-guides were tailored to the specific participant, and the structure developed slightly as the different interviews were conducted. I made Audio recordings of the interviews (consent was given by the participants to record the interview), which allowed me to concentrate on the conversation and have a full documentation of it. The interview guide and more details on the content of the interviews can be found in Appendix C and Chapter 4.

3.2.1.2 **Study two: Participant observation**

As the second Study, I conducted a participant observation at a PSI-Lab based at central UK Government. This lab, called UK Policy Lab, develops Design-oriented methods and tools for policymaking. Methodological decisions that impacted the second Study were based on the conviction that, as researchers, *“we are part of the social world we study”* (Hammersley and Atkinson, 1983, p14-15). The argument by Fossey et al is that, in order to understand the complexities of social worlds, *“some degree of participation and persistent engagement are essential if the complexities of meanings and situations are to be adequately explored and uncovered”* (Fossey et al, 2002, p727). During this second study, I collected data by keeping fieldnotes, recording interviews (with consent), and taking photos of materials designed (as participant) and used as part of my work activities during the study.

Aside from participating in context, in order to make sense of complexities in social phenomena, researchers may have to spend an extended period of time in their context of research. Through the initial study and literature review, it had become clear that the policymaking ecosystem is complex and diverse. As such, in order to generate insights about how Design may operate as part of this ecosystem, experience of the context itself (rather than just experiential accounts of others) was considered valuable.

Conducting a study in the context central to the research, enables me to *“[draw] on a wide range of sources of information”* and *“[participate], overtly or covertly, in people’s daily lives - for an extended period of time, watching what happens, listening to what is said, asking questions; in fact collecting whatever data are available to throw light on the issues with which he or she is concerned”* (Hammersley and Atkinson, 1983, p2).

Hence, conducting a study into the policy design practices at central UK Government would help gain insight into how design research may contribute to evidence and decision-making practices in UK policy design.

The aim of this Study aligned well with the purpose of participant observation to study *“the connection between the actions and utterances of people in social settings with the cultures, discourses, narratives, and social, economic, and political structures within which those actions and utterances occur”* (Watson, 2011, p213). Focusing on *“how things work’ in field settings”* allows me to gain an understanding of policymaking practices and the potential value of Design methods as part of these from within the practices (Ibid., p213). As such it goes beyond interpreting the reflections of peoples’ experience. Instead, it allows me to gather experiences which I, in turn, can reflect upon with participants in order to interpret the gathered data. According to Watson, through the use of this particular research method *“we might produce work which will be much more relevant to human experience and, indeed, to practice”* (Ibid., p213). This as gathering experiences myself, in addition to participants’ reflections on their practice-based experiences, allows me to situated my research closer to the practice.

Functioning as a participant observer (Hammersley and Atkinson, 1983, p2), my focus of the study was to *“learn about the naturally occurring routines, interactions and practices of a particular group of people in their social environments, and so to understand their culture”* (Fossey et al, 2002, p727). In this case, the ‘group of people’ central to the study is UK Policy Lab - a unit within central UK Government, the ‘social environment’ that developed as this unit operates within central UK Government, their practices of exploring Design methods for policy making and their interactions with other parts of central government. In Chapter 5, I argue why I chose to conduct the participant observation with this particular PSI-lab. In the following, I describe further decisions and considerations with regard to the overall research methodology.

There are several aspects of reflexivity to consider when conducting participant observations. One of great importance is the position of the researcher as participant in the context central to the study. It is common for the researcher to take a dual position of both *insider* and *outsider* to the study context. According to Fossey et al. - amongst

others – this duality is considered especially beneficial as it gives the researcher the potential to juxtapose these positions in data collection and analysis in which *“both positions [were] critical to developing a contextual understanding of”* the research context (Fossey et al, 2002, p727).

My insider position as a trained Designer will help me to understand the discourse and practices of Designers working at UK Policy Lab. This position, I *“juxtapose”* with the outsider position of being a researcher (Fossey et al, 2002, p727). Furthermore, despite being a resident of the UK, I am Dutch by nationality and in lived experience. As such, I bring a different perspective and experience whilst studying practices in UK Government. Thirdly, I am an outsider as I am not a professional working in the policymaking context. These three aspects to my outsider position at UK Policy Lab, enable me to take a *“more ‘outsider’ view in observing”* what the team’s practices revealed about their position amongst other UK Government practices (Ibid.).

Given my background as trained Designer, a potential bias – or tunnel vision - in my observations are the values and opportunities that I believe Design has for policymaking practices. This potential bias permeates the doctoral research overall, and whilst not stated as a hypothesis of this thesis (due to my constructivist/interpretivist position), there is an assumption that there *may be* value in introducing Design methods to policy. In order to turn this potentially detrimental bias into a potential for this research is to reflect on the understanding that whilst I know about Design, I do not know about policy. Ergo, in order to generate insight into how design research may be of value to policy design, I need to acknowledge my lack of knowledge and make this central to my research. Coming back to the choice for conducting an ethnographic study, the dual position as participant observer in studying UK Policy Lab’s practices allows me to take the outsider role to ask and observe from a perspective of ‘not knowing’ rather than ‘knowing better’ – which, I believe, would have been a detrimental consequence when not acknowledging my Designer’s bias.

A second aspect of reflexivity to consider is that *“field notes”* – a common method for documenting data in ethnographic studies – *“describe not only the researcher’s experiences and observations, such as those made [whilst] engaged in participant*

observation, but also his or her reflections and interpretations” (Fossey et al, 2002, p728). To ensure a reflexive researcher practice, *ethnographic interviews* allow for reflecting on observations and interpretations by the researcher with individuals that are being studied. Watson argues that it is due to the “*emerging relationship*” between participant observer and study participant, the study participant (the participant in the ethnographic interview) may be comfortable enough with the participant observer (the interviewer in the ethnographic interview) to challenge the interviewer’s observations and reflection (Watson, 2011, p212). As such, ethnographic interviews do not solely function as additional data sources but contribute to the participant observer’s ability to ensure their reflexive research practice. Watson argues that the ethnographic interview builds on an existing relationship between participant and researcher:

This is a relationship, as I would put it, in which the subject feels confident to challenge the researcher and contribute to the shaping of the conversation, as opposed to falling into line with the interviewer’s priorities and preconceptions. (Ibid.)

3.2.1.3 Study three: Graphic elicitation method

The third Study consisted of a series of interviews with policymakers, which were guided by the activity of populating a timeline that captured the participant’s process of idea development in policy design. The first two studies of this doctoral research surfaced complexities of policy design from perspectives outside of policymakers. The methodological decisions made for the design of the third Study focused on gaining an understanding from within policy design practices. The central question to this Study focused, therefore, on how policymakers experience and understand the idea development processes in policy design. Moreover, the study aimed at understanding how policymakers reflect on the complexities of decision-making, and in particular, when asked to do so through using terms common in Design that are used to describe idea development processes. Important to the design of this Study was the creation of a conversational space that allows for, rather than limits, the complexities of the topic central to the study. The assumption, here, was that in order to understand how design research may contribute to policy design, there should be an understanding of the complexities design research may face when appropriating their practices for use in policy design processes. This assumption is grounded in the preconception that in order to change practices in organisations that, amongst others, operate at large scale, include

a vast number of actors, and have a long history to them, you have to understand and become part of these practices.

Insights from the first two studies highlighted the difference in worldviews and practice of policymakers and designers. This Study aims to gather reflections on the complexities of idea development in policy design, to gain insight specifically into how this compares to design research processes. In order to bridge the anticipated gap between idea development in Policy and Design, the aim of the research was to enable participants to reflect on their policy practices as if they were Design practices. As such, the choice was made to facilitate the conversational space of the interviews by using a *graphic elicitation method*.

Bagnoli states, “*graphic elicitation methods [...] involve drawing, an activity that allows participants time to reflect about the issues being explored.*” (Bagnoli, 2009, p548) In this category of methods, “*dialogue begins with the participant’s description of the visual, and moves on to comparison and evaluation. This is the act of elicitation – drawing out the spontaneous interpretation of past experience*” (Bravington and King, 2019, p509). This research method has been used by UK Policy Lab to facilitate research into policy practices in order to inform Design practice for policy (see Section 2.3). It appeared to enable policymakers to take a helicopter view of the policy processes whilst simultaneously sharing nuanced reflections of their individual experiences of these practices. The visual elements in the study setup allowed participants to discuss different layers of complexity, as each of the layers could be pointed at when addressing this in the conversation. Bagnoli argues that “*the use of visual and creative methods*” may also enable participants to articulate those experiences that are otherwise difficult to put into words (Bagnoli, 2009, p548).

More specifically, given the focus on professional practices of policy design, Bravington and King talk about “*participant-led diagramming*” arguing “*the simplest of diagrams can introduce complexity to qualitative data as the participant moves beyond the description of its contents to the comparison and evaluation of its elements*” (Bravington and King, 2019, p507). Through the use of graphical elements, these prompts trigger participants to reflect on their experiences from specific perspectives. This provides,

according to the authors, a valuable juxtaposition of abstract thinking and concrete 'graphic representation' when asking participants to reflect on complex processes – in my case, idea development in policy design:

These spontaneous processes – the dynamic nature of diagramming alongside the encouragement of critical and ambiguous thinking – can enhance the complexity of participants' narratives. Paradoxically, the simplicity of graphic representation can make reflection and meaning-making easier by reducing and organising a large volume of information into spatial and/or metaphorical locations. (Bravington and King, 2019, p509)

Given that spoken and written language are central to policymakers' practice they are likely to be able to articulate their reflections well during an interview-style method. Simultaneously, it might also allow them to fall back on 'organisational speech' rather than reflecting on their personal and subjective experience. Therefore, rather than declaring what is understood as *participant reflexivity* in the conversations with policymakers, it may be more valuable to understand how I aim to mitigate a lack of reflective thinking by the participants. According to Bagnoli, who reviews visual methods in qualitative research, "*a creative task may encourage thinking in non-standard ways, avoiding the clichés and 'readymade' answers which could be easily replied*" (Bagnoli, 2009, p566). Bravington and King highlight that "*constructing a diagram requires the comparison and evaluation of its elements, provoking critical thinking, spontaneous metaphors and novel*" (Bravington and King, 2019, p508). The need for comparison of the designed elements of the activity in conducting a diagramming activity is particularly appropriate for this Study as it aims for a narrative that bridges the discourse of two different professional practices.

I consider this to be the inroad into facilitating policymakers to reflect on their processes as if they were Design processes – without this being the overt focus of the activity. Providing a visual structure allows me to bridge some of the barriers observed between Design and policy practices. Overall, this is considered a valuable opportunity of using a graphic elicitation method to generate insight into idea development processes in policy design. "*The structure of a diagram can elucidate the scope of an interview at the outset*" and through that help to understand policymakers' experiences from the perspective of Design processes in a policy context (Ibid., p507). According to Bravington and King, "*using the same or similar diagrams across a series of interviews can help to*

retain focus on a research question and facilitate cross-case comparisons,” (Ibid., p507) Bagnoli highlights that such *“projective techniques include any set of procedures which, being minimally structured, allow people to impose their own forms of organisation, bringing into expression their needs, motives, emotions and the like”* (Bagnoli, 2009, p548). This Study allows me to design a structure for interviews with the elements of my understanding of a Design process, which participants can then use to facilitate their reflections that, in turn, are informed by their professional practices of working in government (Ibid.).

For the specifics of this Study, the decision was also made to develop a timeline activity to facilitate reflection on idea development in the policy design process: *“Timelines are representations of experiences set out in chronological order. Their aim is to record significant events and elicit the subjective feelings associated with them”* (Bravington and King, 2019, p515). It has been noted that timelines allow for *“collect[ing] the most important turning points and [...] events as seen from [...] people’s own perspectives”* (Bagnoli, 2009, p561). The suggested linearity of a timeline structure of *“sequential diagrams can help participants to examine how a series of actions fit together, the points at which processes work or break down, and more abstract processes such as change and development”* (Bravington and King, 2019, p508). As such, *“timelines can [...] be layered to form a grid, displaying simultaneous parallel aspects of participants’ [professional and/or] social worlds”* (Ibid., p516). For my specific study, it was envisaged that a timeline would support participants reflect on the role of external influences on decision-making within idea development processes. In doing so, as mentioned above, it is possible to enhance participants’ ability to move into modes of comparison and evaluation between the different layers of their practices.

A third potential of a timeline activity is that *“timelines can be combined with axes to represent the fluctuations in subjective experiences”* (Bravington and King, 2019, p507), as well as – in the case of this Study - helping participants to indicate how open or narrow the scope of idea development is at a certain point during the process. This is often done by the participant drawing a line onto the timeline template:

A vertical axis [...] set against a horizontal sequence of events to allow the freedrawing of a line to represent ‘ups and downs’ over time. (Bravington and King, 2019, p516)

Subsequently, such *“freedrawn timelines can be annotated with events, memories or learning points, or elaborated into spirals or circles to represent metaphorical thinking”* which are likely to indicate participant reflexivity (Bravington and King, 2019, p508). The details on the process of designing the timeline activity, which includes the design of visual elements to support metaphorical thinking and overcome the risk of participants disengaging due to the creative character of the activity, can be found in Chapter 6. There, decisions on the sampling and recruiting strategy are also discussed in detail.

3.2.2 Data collection

This Section provides a brief overview of the data collected during each of the studies.

Study 1 collected data through 11 semi-structured interviews conducted with professionals that aim to inform policy. A total of 11 participants were recruited from two different domains, namely the academic field of Human-Computer Interaction and UK-based think tanks based outside and inside of government. (More details on the participants can be found in Section 4.1.3.)

Each of the interviews followed a semi-structured interview guide. The conversations were audio recorded, which I transcribed verbatim (Gubrium and Holstein, 2001) before starting the analysis. Interviews generally lasted around an hour but had two extremes of 30 and 110 minutes in duration and resulted in a total of 12 hours and 15 minutes of audio recordings. The interviews were conducted at the interviewee’s location as much as possible. If not, the interview was conducted in a nearby café, over the phone, or via video conferencing.

During my two-month participant observation at UK Policy Lab, in Study 2 I collected data through taking fieldnotes, collecting visual materials, and conducting semi-structured interviews with designers working at central UK Government.

Also, I took fieldnotes to document bits of conversations, anecdotes, and observations made during work activities. The notes were diverse and did not follow a specific format to allow for free expression of what was noted. A total of 3 notebooks were filled. Several forms of visual materials were also gathered during the study. Materials that I

designed as part of the project that I participated in at UK Policy Lab, as well as materials from previous and parallel projects were included in this. Visual materials often functioned as a means to communicate data to project collaborators, or provided frameworks for the practices designed by UK Policy Lab.

A total of 4 semi-structured interviews with 3 participants were recorded with policy Designers working at UK Policy Lab. These conversations were transcribed verbatim before the start of the analysis. These interviews took place in either one of the conversations booths close to UK Policy Lab's office space, or at the ground floor of that same building. Each interview took between 43 and 95 minutes, resulting in a total of 4 hours and 6 minutes of interview recordings.

During the interviews with policymakers for Study 3, I collected two forms of data. A total of 9 participants were recruited from the pool of previous and current collaborators of Policy Lab. 5 additional participants were recruited using snowball sampling (Fossey et al, 2002, p726), resulting in the total of 14 participants of this Study across 8 interviews. These participants were considered appropriate for the focus of this Study as they either worked with Policy Lab, or a deliverable produced during a collaboration with Policy Lab or have an explicit interest/familiarity in Design methods for policy. Each of the interviews was audio recorded, which were transcribed verbatim before the analysis.

In addition to the transcripts, data was collected through a visual mapping of policy design processes as experienced by the participants. This activity took place during 7 of the 9 interviews. Each of the seven visualisations were photographed for data collection. Each of the interviews took between 45 and 95 minutes, resulting in a total of 9 hours and 40 minutes of audio data.

3.2.2.1 *Triangulation*

In this Section, I detail the types of triangulation that have been applied to contribute to the quality of the research. Following Carter and co-authors description, I discuss four types of triangulation: Data source triangulation, method triangulation, investigator triangulation, and data analysis triangulation (Carter et al, 2014).

In this research, data source triangulation was applied across the three studies to gather multiple perspectives on evidence and decision-making processes in policy design. Three different groups of professionals working in the policy design ecosystem were collaborated with to ensure the collection of a rich dataset that was informed by experiences at multiple facets of policy design practices. Method triangulation was applied in Study 2, during which I conducted interviews, kept fieldnotes, and gathered visual materials of UK Policy Lab's practices. Study 1 solely relied on interview transcripts, and Study 3 gathered a combination of interview transcripts and visual mappings. According to Fossey et al, through data source and method triangulation, the researcher *"permits comparison and convergence of perspectives to identify corroborating and dissenting accounts, and so to examine as many aspects of the research issue as possible"* (Fossey et al, 2002, p728).

Investigator triangulation (involvement of multiple researchers in the same study to collect data) and data analysis triangulation (the use of multiple methods to analysis a data set) were not applied, partly as the validity of the research was ensured through triangulation of data source (across studies) and method triangulation (Study 2). (Some detail on how the risk of not using inter-rater reliability was mitigated through the application of triangulation can be found in Section 3.3.)

3.2.3 Data analysis

According to Fossey et al, *"qualitative analysis is a process of reviewing, synthesising and interpreting data to describe and explain the phenomena or social worlds being studied"* (Fossey et al, 2002, p728). As the analytical process is characterised by the act interpretation, knowledge is generated through an active involvement of the researcher as instrument. As the authors state:

The interpretive process, in fact, occurs at many points in the research process: beginning with making sense of what is heard and observed during data gathering, and then building understanding of the meaning of the data through data analysis. This is followed by development of a description of the findings that makes sense of the data as a whole, in which the writer's interpretation of the findings is embedded. (Fossey et al, 2002, p730)

Following Fossey and co-authors' description of the multiple processes of interpretation that are taking place in the analysis of qualitative data, it is important that the approach

to data analysis gives a central role to the interpretative role of the researcher. As addressed at the start of this Chapter, *“from a constructionist perspective, meaning and experience are socially produced and reproduced, rather than inhering within individuals”* (Braun and Clarke, 2006, p85). Consequently, Braun and Clarke argue, *“thematic analysis conducted within a constructionist framework cannot and does not seek to focus on motivation or individual psychologies, but instead seeks to theorise the sociocultural contexts, and structural conditions, that enable the individual accounts that are provided”* (Braun and Clarke, 2006, p85). Therefore, the experience of an individual is meaningful when considered in relation to another. In this Section, I discuss the decision to use Braun and Clarke’s analytic approach of *reflexive thematic analysis* (2020) for the data analysis of this doctoral research. Central to thematic analysis is a combination of assigning *codes* to the data set and generating *themes* as a way to derive a synthesised understanding through thematic grouping (Braun and Clarke, 2006, 2020).

In developing themes Braun and Clarke provide points of focus. Amongst others, *“all aspects of the theme should cohere around a central idea or concept”* (Braun and Clarke, 2006, p94). Whilst *“each theme is clearly linked back to the overall research question,”* Braun and Clarke emphasise that they are simultaneously *“distinct”* from each other (Braun and Clarke, 2006, p93). The authors highlight researchers need to *“consider how it fits into the broader overall ‘story’ that you are telling about your data, in relation to the research question or questions, to ensure there is not too much overlap between themes”* and *“hierarchy of meaning within the data”* is demonstrated, e.g., through the use of sub-themes (Braun and Clarke, 2006, p92).

Throughout the synthesis process, the researcher should continuously raise reflexive questions as they develop themes – e.g. *“‘What does this theme mean?’ ‘What are the assumptions underpinning it?’ ‘What are the implications of this theme?’ ‘What conditions are likely to have given rise to it?’ ‘Why do people talk about this thing in this particular way (as opposed to other ways)?’”* (Braun and Clarke, 2006, p94) This highlights how, when taking a pattern-based and across-case approach to data analysis, addressing these questions relies on *“progressively exploring the data, and comparing and contrasting different parts of the data, to evolve a more sophisticated understanding as more data is gathered and reviewed iteratively”* (Fossey et al, 2002, p729). In other

words, “the development of the themes themselves involves interpretative work, and the analysis that is produced is not just description but is already theorised” (Braun and Clarke, 2006, p84).

In the next Section, I described the phases of the data analysis as it follows Braun and Clarke’s description of reflexive thematic analysis.

3.2.3.1 *Data analysis phases*

In the analysis of this research, *immersion* – the act of familiarising oneself with the data - is considered the start of interpretive analysis process. As argued by Braun and Clarke, immersion:

Should be seen as ‘a key phase of data analysis within interpretative qualitative methodology’ [...] and recognised as an interpretative act, where meanings are created, rather than simply a mechanical act of putting spoken sounds on paper. (Braun and Clarke, 2006, p87-88)

Transcribing the interviews verbatim is particularly important in order to become familiar with the gathered data as transcribing requires “close attention [...] to transcribe data” (Braun and Clarke, 2006, p88).¹⁹

Once transcribed, analysis can move into the “labelling segments of data to identify themes”, generally referred to as ‘coding’ (Fossey et al, 2002, p729). According to Fossey et al, “it enables the researcher to locate and bring together similarly labelled data for examination and to retrieve data related to more than one label when wanting to consider patterns, connections, or distinctions between them” (Ibid.).

Braun and Clark (2006, p86) identify several phases the researcher goes through when analysing a data set. In the following, a brief description of each of the phases of the analysis of this Study is provided. During each of these phases the interview transcripts were frequently revisited to ensure the narratives and themes that started to develop across the different data items did not mis- or overinterpreted participants’ reflections.

¹⁹ Verbatim transcriptions might furthermore be relevant in later stages of the analysis. According to Fossey et al; “For example, if the aim of the analysis is to understand the meanings given to a situation as expressed by interview participants, then verbatim transcription of the participants’ own words in the interviews would be important to privilege their voices in the analysis and interpretation” (Fossey et al, 2002, p728).

This meant that, even until the very last phases of the analysis, the interview transcripts were actively used in the process.

Phase 1 – Each of the interviews conducted were transcribed verbatim, to get familiarised with the interviews as transcripts, and expanding and reconfiguring on what had been remembered from each of the interviews. The full length of the interviews, the fieldnotes (exclusive to Study 2), and visual mappings (exclusive to Study 3) were considered to make up the data set.

Phase 2 – To maintain an inquisitive approach and the ability to get immersed in the complete data set, an open, *reflexive*, coding approach was followed.²⁰ According to Braun and Clarke “*coding is recognised as an inherently subjective process, one that requires a reflexive researcher—who strives to reflect on their assumptions and how these might shape and delimit their coding*” (Braun and Clarke, 2020, p3).

The objective was to code as much as possible from the interviews and fieldnotes. The codes were iterated upon until patterns across the data started to appear. Coded sections sometimes had several codes attached to them, as they could be understood in several different way. At this point, in study 3, the visual mapping where not yet involved in the analysis.

Phase 3 – Codes from the extensive set were brought together and grouped, as a first step to identifying patterns across interviews (for Study 2 this included the fieldnotes). Short memos²¹ were written, each having at least one section of raw data linked to it to maintain the close connection to the data.

²⁰ Braun and Clarke identify “three broad types” to coding; The “coding reliability approaches,” which are considered inappropriate for this research as “researcher subjectivity is conceptualised as ‘bias’, a potential threat to coding reliability;” “Codebook approaches,” which is often used for “meeting predetermined information needs” (Braun and Clarke, 2020, p3).

²¹ Memo writing comes from the closely related Grounded Theory approach. Whilst this Study does not intent to develop a theory as its outcome, the practice of memo writing is considered a helpful tool to make sense of initial patterns that start to arise from the codes. This phase was considered as a phase between the assigning of codes and the development of themes and aimed to ensure the analysis process would not move into the development of themes too early on.

I furthermore considered it important not to “smooth out or ignore the tensions and inconsistencies within and across data items” (Braun and Clarke, 2006, p89). On the contrary, I deem this essential to acknowledge not only the contextual influence on our reality, but furthermore ensure my reflexivity in the sense-making and synthesis processes of data analysis. Fossey and co-authors state:

Whether and how competing accounts within the data were explored and interpreted, and how the researcher’s thinking contributed to the analysis, which, as aforementioned, also contributes to evidence of the researcher’s permeability. (Fossey et al, 2002, p729)

Phase 4 - Initial themes were described. For example, an initial round of themes for the first study with policy informers were given titles as “Think Tank-ing as a precarious profession”, “Challenges in Maintaining Viability”, “Think Tanks on Sharing their Message/Advice”, and “Striking a Balance: Future & Everyday Politics”. Whilst these initial themes captured the richness of the data set, these initial themes were generally removed from the research question that drove the particular. The resulting groupings were turned into “textual” and “thick description[s]” that document an interpretative and thematic understanding of participants’ reflections (Fossey et al, 2002, p730). Important in developing the initial themes, according to Braun and Clarke, is that the “analytic narrative needs to go beyond description of the data and make an argument in relation to your research question” (Braun and Clarke, 2006, p93). As such, the theme presented a balanced use of raw data such as quotes from participants and my analytical interpretations of this data, placing the quotes “in the context of the intentions and meanings that inform them” (Fossey et al, 2002, p730).

Phase 5 – In phase 5 of the analysis, the initial themes were interpreted once more to understand their meaning in relation to the research question central to the study. At this point during the analysis, the themes became the generated findings from the study. For Study 3, the visual mappings were reflected upon to support the interpretation from the initial themes from the perspective of the study research question. Aspects of the mappings were added to the themes when they contribution to communicating the meaning of participants’ reflections and my interpretation of the dataset. In the next Section, I discuss more detail on the role of themes as findings.

3.3 Ethical considerations

In this Section, I describe my ethical considerations with regards to the collection and analysis of data.

Throughout the research, I followed institutional ethics procedures. As part of this, prior to collecting data, I sought and have been granted by the Faculty Ethics Committee. This was approved on April 28th, 2018. An amendment has been approved by the Faculty Ethics Committee on April 8th, 2019.

3.3.1 Consent for data collection

To ensure data was collected ethically during each of the studies, data during studies was only collected when informed consent was given by participants. Consent was provided by participants after they were informed about the details and purpose of the study through an information sheet and consent form that were shared with the participant prior data collection. Participants were provided with a copy of the information sheet and consent form that were signed by both the participant and researcher. (See Appendix A, E, and G for consent forms and information sheets for each of the Studies.)

In the forms, participants were informed about their right to withdraw at any point during the study and their right to have specific parts of their data to be removed, both without the need to give explain why this is requested. The information sheet included contact details of the researcher (me), the lead supervisor and chair of the ethical committee that would allow participants to express any concern with regards to the study.

The form furthermore informed the participants about how their anonymity would be ensured, to reduce the risk of sensitive information shared during data collection to be deducible to an individual. Participants were encouraged to not share sensitive information during the data collection that is not suitable for public disclosure. In case a participant wished to disclose sensitive information in order to be able to reflect on an experience, it was confirmed with the participant that this would not be transcribed and, as mentioned above, participants had the right to request the removal of specific parts of their data to be removed from the data set.

Prior to the interview the information sheet and consent form were shared with the participants and signed before the start of the interview. Audio recording would start after consent was given again before starting with the interview questions.

3.3.2 Data analysis

It is a central concern in qualitative research that participants are portrayed authentically, and – given the constructivist approach to this research - that researchers' interpretation of participants' accounts is explicitly subjective. As Fossey and co-authors state, the reliability of qualitative research relies on:

Whether participants' perspectives have been authentically represented in the research process and the interpretations made from information gathered (authenticity); and whether the findings are coherent in the sense that they 'fit' the data and social context from which they were derived." (Fossey et al, 2002, p723)

As inter-coder reliability has not been applied in this research, the risk of a lack of reflexivity is mitigated through the application of method and data source triangulation (as described in Section 3.2.2.1).

In order to consider different perspective in researching evidence and decision-making practices in policy design, I applied data source triangulation through conducting studies with three different groups of professionals working in policy design. The different data forms – amongst others, interviews and visual mapping – furthermore provided a range of ways in which these specific practices in policy design were discussed between researcher and research context.

Furthermore, instead of conducting inter-coder reliability as a means to ensure researcher reflexivity, several rounds of coding were conducted on each of the data sets to honour the interpretivist role of the researcher. Multiple rounds of coding forced me, as the researcher, to reflect on the different interpretations a participant's account could have. In contrast, inter-coder reliability may focus too much on how data may be interpreted amongst several researchers. As O'Conner and Joffe foreground, an objection to inter-coder reliability is that it may discredit the role of the interpretative researcher:

Qualitative researchers' role is not to reveal universal objective facts but to apply their theoretical expertise to interpret and communicate the diversity of perspectives on a given topic. Within this epistemological framework, researcher reflexivity and active personal engagement with the data are resources, not "noise" to be minimised. (O'Conner and Joffe, 2020, p4)

Therefore, instead of conducting inter-coder reliability to ensure accuracy of coding, importance was given to providing a coherent account as the end product of the thematic analysis. As Fossey and co-authors state, qualitative accounts "[move] from description of the settings and interactions that occurred, through quotations or examples, to discussion of their meaning and importance, so as to provide a coherent account" (Fossey et al, 2002, p730).

3.4 Conclusion

In this Chapter, I discussed my philosophical approach to the research and elaborated on the methodological choices I made on how to conduct my research. I explained how I believe that meaning in the social world is created through subjective experiences. Due to the subjective nature of both my participants and I, reflexivity is of great importance in order to generate findings and insight from collected data. I emphasised that rather than aiming to minimise complexity, complexities that exist in the research context are key to coming to understand this context and generate knowledge from it.

In the part of this thesis that follows, I report on the fieldwork conducted according to my methodology.

Part 2: Fieldwork

Chapter 4 The role of Design in informing policymaking

In this Chapter, I report on the first Study of the doctoral research. To get a better understanding of the role Design may have in policymaking, Study 1 was set up to gain insight into the interaction and collaboration between policymaking and design research. At this point in the research, I particularly aimed at understanding how Design knowledge from HCI-research may inform policy related to socio-technical issues. (Informed by my motivation for this thesis, as described in Section 1.2.) I therefore set out to understand how Design may inform policymaking *from the outside in*, contributing knowledge as evidence to inform policy decisions, and what challenges may be faced when moving between research and policymaking practices.

As such, the Study focused on understanding how knowledge from Research through Design generated in the field of Human-Computer Interaction (more details on Research through Design can be found in Section 4.2.1.2) may be used as evidence to inform policy decisions. It furthermore builds on opportunities for research identified in Chapter 2 and follows the methodology as described in Chapter 3.

In Section 4.1, I introduce the context of Study 1. Section 4.2 details how I have approached this Study by introducing the research question, a description of the professional domains of think tanks and Human-Computer Interaction (HCI) to introduce the participants, and the method that was used to conduct the study. Section 4.3 describes the approaches to data collection and analysis, with reference to the methodology described in Chapter 3.

In Section 4.4, I report on the findings from Study 1 across four themes on the potential of design research to inform policy. Section 4.4.1 discusses what is recognised as evidence in policymaking, but that policymakers and politicians have differing evidence needs and expectations. There appears to be a middle ground between the expectations of policymakers and politicians that focuses on recommending on 'what works' allowing the coupling of action-based and theoretical evidence (GOV.UK, 2021). In Section 4.4.2, I report on the role of policy informers as mediators focused on bridging practices and

worldviews of researchers, policymakers and politicians. The participants emphasised the need to achieve an ongoing dialogue amongst these groups, as part of which policy informers aim to make visible to researchers the processes of making policy.

In Section 4.4.3, I detail participants' reflections that highlight considerations taken into account when communicating knowledge as part of their policy advice. This highlights that there is no linear relationship between research and policy change. I further unpick the action-based, interventionist, approaches that some of the participants have explored to inform policy (as mentioned in Section 4.4.1). Here, I highlight how Design has been used to test and provide a proof of concept of policy ideas.

In Section 4.4.4, I foreground critical reflections on the role of evidence-based approaches in policymaking. Whilst evidence-practices rely on knowledge from the past and present to inform decisions, when there is a lack of such knowledge, there is a need for different approaches. I bring forward several alternative approaches to developing policy advice that participants reflected on, highlighting a role for designers to facilitate future-oriented thinking by using methods that enable structured envisioning, ensuring intellectual and rigour in these practices.

In Section 4.5, I summarise the findings of this Study. Lastly, I discuss how the findings from Study 1 informed insight into practices of policy informers. Grounded in the reflections of policy informers, I highlighted several complexities that impact the use of outcomes and knowledge of Design to inform policy. It became clear that influences of how, when and whom with knowledge is shared need to be carefully managed in the communication styles that policy informers adopt. Whilst the reflections foregrounded opportunities to inform policy with outcomes and knowledge from design research, I identified an important challenge for designers to develop ways in which they appropriate their knowledge sharing styles to the needs of policymakers. As such, I argue that it is valuable to better understand how the skills, methods and practices of Design are currently applied in government.

In Section 4.6, I conclude this Chapter on how knowledge from Design research might inform policy from *the outside in*, and identify a need for further research into how Design may contribute to policymaking from *inside* government.

4.1 Background

In Chapter 2, I identified the need for a more balanced approach to the potential of *Design for Policy*, bringing together Design and Policy perspectives.

In order to explore the interaction between design research and policymaking, I recruited *policy informers* to gain insight into how they aim to contribute to policy approaches and knowledge similar to those from Design research. I selected participants from this extensive external network of professionals that aims to inform and influence policymaking. As this network ranges from think tanks, policy labs, universities, research institutes, to charities, advocacy groups and lobbyists (Dorey, 2005); I chose to approach two specific types of policy informer: Think tank employees and representatives that make use of human-centred and future-oriented approaches in their work, and HCI researchers that had experience informing policy. As these policy informers work in the space between policymaking and research to inform policy decisions with evidence, their experiences are likely to inform insight into how design research may contribute to the role of Design in policymaking.

4.2 Study 1 approach

I took an explorative and open approach in this initial study to gain first insight into how design research may inform policy making. The guiding research question in this Study therefore was:

How might the knowledge and outcomes of design research influence policymaking processes?

Through a series of semi-structured interviews, I aimed to gain insight into the practices of policy informers, and the challenges and opportunities they experienced when using human-centred and future-oriented approaches in their work. Furthermore, I was interested in their reflective comparisons between how they want to work and the way, they believe, current cultures within policymaking prescribe them to work.

4.2.1 Defining participant sample

In this Section, I discuss for defining the participant sample of this Study.

4.2.1.1 *Think tanks*

Think tanks are organisations that collect, gather and combine evidence aiming to inform and often change policy (Muller, 2012; Bruckner, 2015). Think tanks are generally forward-looking, often working on cutting-edge and emerging developments in their fields of interest, whilst acting in the space between research and policy communities. They play an important role in bringing research into policymaking processes and are considered one of the three biggest actors influencing public policy in the UK, alongside political parties and ‘organised interests’ (Dorey, 2005, p30) — groups of people that have organised themselves in, for example, unions and associations around a particular interest. As such, think tanks are regarded as one of the major inroads for researchers to influence public policy (together with influencing Members of Parliament (MPs), government, and political parties) (UKRI, 2019).

In their role, think tanks have been referred to as ‘boundary workers’ (Mendizabal, 2013) — developing approaches that enable them to ‘be’ policymakers as well as researchers (Hoppe, 2010; Chaytor, 2017) - and *“idea brokers [...] engaged in multi-disciplinary research intended to influence public policy”* (Dorey, 2005). As well as responding to contemporary critical debates that exist within policymaking, many think tanks are interested in change and have developed practices to feed these ideas into EBPM processes. In parallel to the motivation of UK Government to develop EBPM, the ‘traditional’ British think tanks (Denham, 1998) *“aim to provide objective information and evidence on issues [to] influence the ideas of policymakers, irrespective of which political party is in government or regardless of the dominant intellectual framework or paradigm prevalent at any particular time”* (Dorey, 2005, p44). They often conduct their own research, but also work closely with academics or build on published literature to develop recommendations to feed into policy briefs.

Whilst the majority of think tanks aim to influence the democratic debate (Bruckner, 2015) by addressing policy makers directly to trigger change, several organisations have explored ways to gain support amongst citizens and the general public (for example, the New Economics Foundation, The Thought Collective, Catapult Future Cities) as a means for triggering change rather than addressing policy makers directly. This type of think

tank appears to utilise Design practices, methods and outcomes to achieve influence, which is of strong relevance to this research.

4.2.1.2 *Human-Computer-Interaction*

As mentioned in the introduction Chapter (Section 1.2), my understanding of design research is largely grounded in the academic design research practices of Human-Computer Interaction (HCI). The focus of this Study 1 therefore naturally looked into how Design knowledge generated in the field of HCI may inform policy decisions. Furthermore, with a small number of HCI-researchers starting to inform policy with knowledge generated into socio-technical impact of Design, this strongly informed the focus of this initial Study. Below, more detail on the design traditions in HCI and policy informing practices can be found, articulating why HCI researchers were chosen as the second participant group for this Study.

The research field of Human-Computer-Interaction (HCI) developed as a specialism within computer science, growing into a body of knowledge focused on the interactions and relationships between people and computer systems (Carroll, 2012). Over time HCI has been increasingly recognised as a field shaped by many different disciplines going beyond its computer science roots, first adopting methods and approaches from cognitive psychology and engineering design, later drawing heavily from social science (for example, through ethnographic approaches), and more recently the arts, humanities, and Design (Fallman, 2011).

For several decades, researchers within the field of HCI examined the role that Design methods and approaches have in human-centred technology research, most commonly referred to as *Research through Design* (Frayling, 1993). These approaches have: brought a practice with reflection and speculation at its core to HCI (Forlizzi, 2008); brought a reciprocity between theory, practice, and production (Buchanan, 2001); examined complex issues from within the issue, rather than from the outside (Wright, 2005); provided balance between research and application (Stappers and Giaccardi, 2017); and brought a process of inquiry that is generative and explorative (Durrant et al, 2015) and deliberately focuses on ‘what might be’ (Zimmerman and Forlizzi, 2014).

Whilst *Research through Design* (RtD) is growing the Design orientation²² of the field of HCI, it also introduces many reflective, critical, speculative and anticipatory approaches that strengthen the generative and forward-looking nature of the field. (Reeves, 2012).

As well as the interest in Design, in the recent years, HCI researchers have started to use thought pieces (Lazar, 2015) and workshops (Bederson et al, 2006; Davis et al, 2012) to highlight the space between HCI research and policymaking during the development of socio-technical regulations. Researchers are increasingly engaging with policymakers to inform them about the impact of digital technologies on society and politics (Bada et al, 2015; Fallman, 2011; Lazar et al, 2016; Nathan and Friedman, 2010; Rodger, Vines and McLaughlin, 2016; Thomas et al, 2016). Researchers have also discussed undertaking activities to gain experience of policymaking practices. These have included: work placements and graduate courses (Lazar, 2017; Lockton, 2018); submitting policy briefs (Thomas, 2016) and even working as policymakers (Cranor, 2016); as well as critically investigating the formats used for policy documentation by redesigning them (Pierce et al, 2018). This has led HCI to identify several challenges when aiming to inform policy. Rodger et al. highlight that different forms of evidence are valued differently, emphasizing a *“practical need to fit evidence”* to the contemporary practices of policy (Rodger, Vines and McLaughlin, 2016, p2426). Wang’s work focuses on the complexity of developing policy around the types of complex problems that are often investigated in HCI research (using the specific example of ‘smart cities’) and calls for an understanding that this ‘hinders’ the progress of policy (Wang, 2016). Thomas and co-authors take a public policy focus in discussing environmental policy in the field of HCI and identify a need for HCI researchers to read *“well outside”* their research focus and discipline to become aware of the *“relevant terms, methods and debates”* that are relevant to their policy brief (Thomas et al, 2017, p6989). These attempts to inform policy can be seen as an indication of a growing interest in the SIGCHI community to inform policy, as a means to achieve real-world impact and improve people’s quality of life (Lazar, 2015).

²² HCI research has always had a pragmatic focus on developing and understanding ‘the new’ in order to solve problems in the world. Through this, HCI-Design has developed research practices that embrace the complexity that comes with real-world research (Stolterman, 2008), understand interactions between humans and computer as experiences as well as growing relationships that arise between the two, and research the anticipated impact of (future) technological intervention (Wright, 2005; Fallman, 2011).

An example of work that bridges the Design- and Policy-oriented strands of inquiry in HCI is 'Gigbliss': *"An IoT suite that offers three models of the same hairdryer, [...] linked to three distinct economic models of energy consumption, management and trading"* (Gigbliss, 2018) The project is the outcome of a collaboration between the EU Policy Lab and HCI researchers for the project #Blockchain4EU (EU Policy Lab, 2018b). Through the making of speculative Design prototypes, they explored the 'industrial transformation' blockchain technologies might bring, whilst providing insight on what the 'policy dimensions' of such technologies might be (EU Policy Lab, 2018a). Examples such as these, show how HCI uses design research as a method of studying emerging technologies whilst simultaneously exploring what the consequences of these technologies might be for policy.

4.2.2 Research method

As described in the methodology Chapter, this thesis takes a constructivist approach to understanding the potential role of design research might have in policymaking-

Policymaking is considered a complex ecosystem that seems to be best understood through gathering insight into its practices at different parts of the system.

This thesis gathers and analyses experiential accounts from individuals that work at different parts of the policy making process. In this Study, the relation between design research and evidence in policymaking is approached from the perspective of policy informers. A series of semi-structured interviews were conducted to get insight into the 'space' that exists between design research and policymaking to identify (existing) themes on the gap between these practices.

These interviews focused on gathering policy informers' reflections on their experiences of working in this professional practice. My role as interviewer in these interviews is to encourage participants to share concrete and detailed reflections in order to get insight into the everyday reality of their professional practices.

4.3 Data collection and analysis

The data for this Study was collected in the spring of 2018, over a period of 2 months during which 11 interviews took place. I conducted seven of these interviews with participants that fell within the category of 'credible' policy informers. Four more

interviewees were recruited from the HCI research community that have experience informing policy with their research findings. (Examples of coding and other steps part of the thematic analysis can be in Appendix M.)

4.3.1 Participant recruitment

In this Section, I specify how participants were recruited and details on each of the participating policy informers (see Appendix B, for the recruitment email).

4.3.1.1 *Think tank participants*

As think tanks have been topic of critical debate, it was considered important to recruit appropriate participants to ensure the quality of this Study. Think tanks have been judged ‘blue sky thinkers’ as they produce policy advice that does not always seem to consider the constraints within which government is able to act (McNutt, 2009; Abelson, 1998). Furthermore, the credibility of think tanks has been questioned due to lack of openness regarding, amongst others, funding streams and their political agendas (Baertl Helguero, 2018). This has led to the identification of nine factors that determines a think tank’s credibility: its networks, past impact, intellectual independence, transparency, credentials and expertise, communications and visibility, research quality, ideology and values, and current context (Ibid.).

Through desk-based research, a catalogue of operating think tanks was created. Each entry in this database detailed aspects to regarding the organisation’s credibility, e.g., their political position and their funding models. From this list, seven UK-based, non-partisan, think tanks were selected for studying in more detail. To ensure experience-based accounts were gathered from across the expected wide range of policy informing practices, the recruitment process focused on finding participants who worked in think tanks that took differing approaches to policy engagement. This included those working: as civil servants reporting to MPs and ministers (P7); as independent bodies situated in government offices (P1); as independent bodies located outside of government but engaging directly with policymakers and MPs (P4, P8); or as independent bodies engaging in policy influence through public engagement (P6). None of the think tanks had a single domain of focus, and therefore all aimed to inform multiple domains across public policy. Two of the participants were staff of an international think tank platform,

which does not aim to influence policymaking but supports think tanks in their practice (P3, P5). Both P3 and P5 still had prior experience working at credible think tanks.

4.3.1.2 *HCI participants*

In addition to the ‘think tank’ participants, four further participants were recruited from the academic HCI community (using predominantly purpose and some snowball recruitment).

As mentioned earlier on in this Chapter, only a small number of HCI-researchers have experience informing policy with knowledge generated on the socio-technical impact of Design. Though, given the focus of this Study into how designers might inform socio-technical policy from outside of government, the deliberate decision was made not to recruit design researchers from outside of the academic HCI community.

These participants were researchers who have published on policy engagement as part of their research practice or have been engaged in policy related issues in their research (also detailed in Table 1). Selection was based on the different approaches the researchers take to engage with policy. One of the interviewees had primary experience informing corporate policy (P9) and two had experience in informing public policy on national levels (P2, P11). One additional HCI researcher was chosen based on his work that engages with communities (P10). This participant was brought into the study to provide a perspective on bottom-up approach to changing social issues, rather than the top-down approach that policymaking takes.

Table 4.1 provides a short description of each of the interviewees that participated in the study.

Participant	Description
P1 (TT)	Think tank based at the Cabinet Office, London. Focused on deepening the collaboration between 'policy officials' and academics.
P2 (HCI)	HCI-researcher based at research group that focuses on informing policymaking and policy practices. (US-based)
P3 (TT)	Researcher and advisor on think tank practices internationally, with experience working for non-UK based think tanks.
P4 (TT)	Employee of traditional think tank aiming to influence across multiple policy areas. Aims to inform across all parties. Not London-based.
P5 (TT)	International Think tank researcher and advisor, former employee of a UK-based think tank.
P6 (TT)	Employee of think tank that aims to inform policymakers directly, but which furthermore focuses on public engagement to inform them on policy issues.
P7 (TT)	Employee of a think tank-like body within the civil service that focuses on strategy development for technology-related policy.
P8 (TT)	Former employee of a London-based traditional cross-party think tank.
P9 (HCI)	HCI-researcher with experience in informing corporate policy. (UK-based)
P10 (HCI)	HCI-researcher focused on designing with and for communities. (US-based)
P11 (HCI)	HCI-researcher with experience in informing public policy. (US-based)

Table 4.1 Summary table of participant sample.

4.3.1.3 **Consent**

Prior to the interview the information sheet and consent form were shared with the participants and signed before the start of the interview. Audio recording would start after consent was given again before starting with the interview questions. (Information sheet and consent form can be found in Appendix A.)

Soon after the interview, the audio recordings were transcribed verbatim (Gubrium and Holstein, 2001). The handling of the data was done according to the protocol set out in the ethics application. (See Appendix P.) Once translated, the transcript was sent to the participant to get their approval for using the transcript for further analysis. Participants could highlight sections that needed changing or removing. All participants accepted with the use of the unchanged transcriptions.

4.3.2 Interview structure

Semi-structured interviews were conducted with each participant. These interviews followed a similar structure; several questions were asked in each interview and additional questions were tailored to the specific interviewee. When relevant, small adaptations to the questions were made, informed by preceding interviews. In the conversations, participants were invited to talk about and reflect on: How they first started to engage in activities related to policy informing; their motivations for working in these spaces; and their various strategies, techniques and approaches to using insights from research in policymaking situations. In the conversations, emphasis was placed on asking participants to explain specific instances where they had developed or changed their practices, and the challenges they faced in bridging research and policy. (For an example of an interview structure, see Appendix C.)

Interview questions aimed to trigger reflection and open up conversations on the values driving their work, their reasons for taking human-centred and future-oriented approaches, and their approaches to communicating and demonstrating such types of evidence. The interviews had an open-ended structure, allowing the interviewee to speak freely about their experiences. Follow-up questions would be informed by what the interviewee decided to share. This approach resulted in varied duration between the interviews. Interviews were generally around an hour long but had two extremes of 30 and 110 minutes in duration. The interviews were conducted at the interviewee's location as much as possible. If not, the interview was conducted in a nearby café, over the phone, or via video conferencing.

4.3.3 Data analysis

The process of data analysis followed Thematic Analysis, as explained in Chapter 3.

A description of each of the different phases that took place during the analysis can be found in Section 3.2.2.1. Two examples of memos can be found in Appendix D, which were written as part of phase 3 of the analysis can be found as an illustration of the process.

4.4 Findings

In this Section, 4.4, I report on the themes generated from the semi-structured interviews with policy informers working in think tanks and HCI research.

4.4.1 What is recognised as evidence in policymaking

In this Section, I discuss the general meaning of *evidence* in evidence-based policymaking and the role of evidence as part of a policy advice. The interviews make clear that evidence plays a critically important part in policy informing practices. The collection, analysis and presentation of research data therefore takes on a central role in participants' practices. In conveying the legitimacy of recommendations and minimising concerns that these are 'a guess' or ideologically driven, for the participants, the notion of evidence appears to be tied to the importance of "*intellectual independence*" and ensuring "*research [...] is where everything rests on*" (P3, TT).

The participants' reflection foreground that evidence requires specific framing when incorporated in a policy advice. This means, amongst others, that limit to evidence needs to be acknowledged. For example, P2 (HCI) describes that they "*are looking for insight [...] to make improvements [and] make no claims for comprehensiveness or completeness*" (P2, HCI).

In addition to the completeness of knowledge, important for a policy informer is to understand whether their knowledge is strong and certain enough to base policy advice on. As P11 reflects on policy engagement experiences, he argues, "*if you get a question and you don't know the answer, acknowledge it and say: 'Sorry, that is outside my area of expertise.' Don't try and answer it*" (P11, HCI). Overall, it suggests that a policy informer's credibility depends on their ability to identify the limit of (their) knowledge as well as the quality of the evidence.

Looking more closely into what is considered as evidence, the interviews highlighted what seems preferable by policymakers. Knowledge that is objective or appear certain are seemingly considered mostly as evidence. P7 (TT) notes this might partly be due to:

An organisational conservatism that, if people are trained in classical policymaking, they use the graphs and tables and things like that. [...] Generally, the success [of a policy] is measured in terms of GDP growth or hospital waiting times. (P7, TT)

Macro data — e.g., statistics, long-term trends, or measures across an industry or sector — seem to be seen by policy informers as more likely to be seen as evidence for policy. Therefore, when discussing what participants meant by ‘evidence’, many of them described privileging large quantitative datasets, and longitudinal research, in shaping their policy facing activities.

Although these forms of knowledge are allegedly privileged in policy contexts, as interviews progressed it became clear that these forms of evidence do not always suffice. Participants noted that there is considerable role for qualitative and testimonial evidence when aiming to inform politicians. Before going into this finding with more detail, in Section 4.4.2, I will first discuss how communicating evidence is an essential part of policy informing practices.

4.4.2 Communicating evidence for policymaking

Section 4.4.2 considers, in detail, the work that is to be done by policy informers to communicate their advice to policymakers. Through the interviews it became clear that generating evidence in itself is not enough to influence policymaking processes.

Evidence needs to be communicated to the right person, at the right time, in the right context. Furthermore, reflections from the participants on how they collaborate with researchers highlight how academics focus on the mediation practices of policy informers to communicate their work to policymakers and politicians.

Section 4.4.2.1 focuses on how policy informers aim to make their evidence visible for policymaking, Section 4.4.2.2 expands this by identifying the importance of making evidence relevant, and Section 4.4.2.3 discusses participants’ reflections on the importance of understanding the different levels of detail that are suitable at each stage of a policymaking process.

4.4.2.1 *Making evidence visible for policymaking*

In this Section, I highlight the importance of making evidence visible for policymaking and details some of the approaches participants have taken to ensure their advice is seen by policymakers.

According to P3 (TT), policy informers must work hard on their communication practices *“to show what they are and what they do.”* (P3, TT) Several of the participants described taking a pro-active approach in continuously getting their message visible in public locations, for which they leverage many different communication channels. The participants that worked for or represented think tanks shared how they have embraced the widespread adoption of social media in society and the ‘liveness’ of social media exchanges. As P5 reflects, this adoption *“dramatically changed the way think tanks engage with their audiences and public”* (P5, TT). At the same time, traditional forms of communication remain an important element:

We send [letters] to members of the oppositions with a specific interest. [...] It is often those MPs who you are really interested in personally and who write back to you. [...] We go around and speak at every event we can get our hands on.
(P4, TT)

Being visible as policy informers, however, is *“necessary but not sufficient for influence, [...] it doesn’t mean that because you are visible or because the policymaker knows you, they are going to call you”* (P5, TT). Through the interviews it became clear that much additional work is required to lead to change in perspective or an engagement with ideas. The participants collectively expressed that, in order to give better advice a core aim is to get *“in tune”* with different policy dialogues (P5, TT). It takes time to configure research to fit a specific area of policy. According to P2, this *“is a whole other area of complexity.”* *“There are many layers of policy and there are many layers of legislation.”* (P8, TT) Policy informers need to negotiate different audiences that have different remits, priorities and ways of working.

Whilst participants highlighted that it is an essential part of policy informing to know which work is relevant to policymakers and delivering that to them as soon as possible, they furthermore emphasised that need to show a clear understanding of the immediate pressures and priorities of policymakers in how and what evidence you present them. Section 4.4.2.2 describes in more detail some of the processes research needs to go through in order to become policy advice.

4.4.2.2 Making knowledge relevant for policy

The interviews foregrounded that, in order to provide policymakers with relevant knowledge, there is a need for knowledge to be framed within the context of a relevant

policy issue. In this Section, I discuss how the participants mediate between academic and policy styles of presenting knowledge as evidence.

Whilst some of the participants working at think tanks reported that they conducted their own primary research, the majority said they *“tend to collaborate with leading academics who have good reputations in the area that we are doing work in”* (P1, TT). They relied on them to *“provide reasonably well-informed, well evidenced summaries of literature”*, they *“use them mostly as guides of literature”* to generate evidence for policymaking (P1). Nonetheless, P5 (TT) states that the assumption should not be made that *“there is a linear relation between the research they do and the policy change.”* Instead, evidence is constructed through reciprocal interaction. P11 (HCI) draws a striking comparison; *“they don’t work on sort of drive-by; ‘hey we have this article.’”* The poorest practice, *“starts with the thinking: ‘I am going to do this Study and recommend this, and this is going to happen tick, tick, tick’”* (P5, TT). Participants noted that, typically, when researchers first set out on their policy informing activities, they often assume the links between their work and policy issues are more transparent than they actually are. P11 (HCI) describes how he often has to explain that:

When you [write] your research [down] in [an] article, mention the relevant laws. Not just say; ‘There is a law’. That is one of the biggest mistakes [...] Ok, well, which law? What is the law? [...] Be clear about the coverage of the law; who does it apply to? How many citizens in that country are served by that law? (P11)

This process, which several participants called ‘recipient design’, appears to be about understanding that policy informers act between two rather contrasting practices. P2 (HCI) mentions *“that [this] goes back to [the differing] worldviews”* between the two professions. The interviews foregrounded that the gap between the different worldviews and ways of thinking around issues of policymaking needs to be bridged in order to get policy advice across successfully. P2 (HCI) describes a meeting on the topic of privacy by Design with policymakers and designers that lacked such ‘recipient design’:

There were a couple of designers [presenting] their Design processes [...] Then the regulator policy type person in the audience said: ‘Well can you just give me the specs, what are the requirements so I can write the regulation?’ [...] The look on the designers faces [...] It was; ‘that is not how Design works, that is not how we evolve and develop technologies’ and the regulators thinking it is something of a fix thing, that is like: ‘Tell me what it is, and I can know what rules to write around it’. [...] Just silence, nobody knew what to say. (P2, HCI)

Through this reflection, it became clear that - as policy informers – it is important to show an understanding of the audience’s ways of thinking and simultaneously be clear about the decision-making that took place during the research process. Policy informers “*should understand what the policymaker is asking for and why they are asking for it. They should play by those rules and use their language*” (P5, TT). Therefore, the interviews make clear that communication between policymakers and researchers needs to be designed in a way that policymakers understand and can relate to:

It is the same issue but their relationship to it is very different, which means that the kinds of arguments you would make to change someone’s mind either way, have to be different. [...] You connect around an issue, but not as a social group. (P10, HCI)

As such, it seems that in order to inform policy with knowledge from design research, it is important for researchers to understand how policymakers are likely to understand the issue. In order to communicate research effectively, the ways in which it is communicated should reflect how the knowledge is understood as evidence in a policy context. Section 4.4.2.3 further unpicks how evidence should be communicated, highlighting the importance of considering what level of detail is appropriate at which stage of a policy process.

4.4.2.3 Different levels of detail at different policy stages

Throughout this Section, it becomes clear using design research to contribute to policy requires communication styles different from those common in academic publication venues. P9 explains that the right level of detail plays a key role in communicating messages to policymakers effectively:

The think tanks in the city [London], they know recipient design. They know how to solve the recipient design problem, because they know who their audiences are. Part of [...] the problem of recipient design is: How much stuff does our client need? Is it long, is it short, is it quick, is it thick, is it comprehensive, is it narrow? [...] Think tanks know [it] for every different task, every different audience, every different cluster, every different government department, politician, whoever is their client. (P9, HCI)

It was apparent from the participants’ accounts, that the detail of the research data is necessarily consolidated and synthesised into ‘relevant’ summary forms. This is a process in which design researchers and policy informers can, according to the participants, collaborate closely. When policymakers engage with design researchers,

they “are not coming to get a broad education” (P2, HCI) on the topic of the policy issue. P1 emphasised how policy informers, such as think tanks, can help to build and focus the narrative together with academic design researchers, especially “to shorten, simplify significantly and concentrate on the implications and firm those up.” (P1, TT) Several participants voiced approaches for identifying what is relevant for the summary, foregrounded that these depend on the stage at which policy informers aim to influence the policy making process:

As an organisation that tries to inform policy you have to be nimble enough to react those informal opportunities as well as understand where the formal processes are leading and be able to feed them in at fixed points of that. It is important to be able to do both. (P7, TT)

Furthermore, participants described that more detailed information is appropriate in the later phases of the policy development process. P1 (TT) — who described himself as working at the “research and development end of the spectrum” — spoke about how his team works to ensure relevance and precision in content at earlier stages, providing more detail throughout the policy informing process:

What we’ve done is a ‘rapid review’. [...] Literally, in a slide saying here [is] some of the [...] literature and [...] a map saying here are some of the leading academics around the country operating in relevant areas. [Then,] how [companies] have approached [the topic] in their organisation.” If they manage to convince the policymakers to engage in a more “long-term program of work”, they “do a ‘deep dive’ project from there. [...] Can it be a 20 or 30 slide pack on a specific question? With a round table seminars and other kinds of events. (P1, TT)

Overall, the interviews showed that policy informing as a communication practice is an interactive dialogue between policymakers, MPs and ministers, policy informers, and design researchers. It involves reciprocal interactions which take time to develop and maintain instead of being a one-off shot at success. Every time they reach out to a policymaker, the participants described how they kept in mind that they are not convincing themselves but others. Therefore, they aim to present evidence according to the rules and language of policymaking in order to present it in a way that they understand and can relate to. Several participants described their collaborations with researchers, showing how fields of research often collaborate with policy informers such as think tanks in a reciprocal manner to use them as mediators for communicating academic research insights at the right moment, to the right people.

In Sections 4.4.3 and 4.4.4, I discuss in detail participants' experiences of introducing human-centred approaches to inform policy and develop future-oriented policy scenarios.

4.4.3 Using human-centred approaches to inform policy

In this Section, I will introduce the ways in which policy informers have introduced human-centred approaches to their practices. Whilst the participants highlight the importance of human-centred perspectives in policymaking, they emphasise several challenges and tensions when aiming to use it as part of their policy advice.

In addition to informing policymakers, politicians receive advice from policymakers to inform their decisions. As discussed in Section 4.4.1, the interviews highlighted how policymakers and politicians might have differing expectations from policy informers. Whilst policymakers allegedly give priority to large-scale, quantitative, and longitudinal types of knowledge, participants suggest that politicians may furthermore rely on testimonial and human-centred perspectives. This difference in the expectations of these two target audiences become particularly clear when participants were asked to reflect on this. P7 clarifies that, as policymakers and politicians – MPs and ministers – “*come from slightly different perspectives, the way you [as policy informer] talk to them has to change:*”

I think that is probably a product of where they come from, right. Ministers and MPs are elected. They have direct conversations with members of the public all the time. They are elected formally to represent their constituency. [...] MPs and ministers, are very interested in the citizen: ‘What will this mean for the man on the street? Or the woman that comes to my surgery?’ [...] Policymakers are generally professionals in a given area of policy, or in policymaking more generally. [...] [They] often think in macro numbers of people, percentages and things like that. [...] They are one step removed from members of the public and generally their success is measured in terms of GDP growth or hospital waiting times, where the individual is lost in the data a little bit more. (P7)

This distinction highlights a continuous tension between individual accounts and larger data sets, when aiming to inform policy with human-centred advice. Section 4.4.3.1 discusses how policy informers are applying methods to introduce a human-centred narrative to policy advice. After that, Section 4.4.3.2 focuses participants' reflections on taking interventionist approaches in order to inform policy with impact in practice.

4.4.3.1 *Introducing human-centred narratives into policy advice*

In order to bridge the gap between differing expectations between policymakers and politicians, participants described how they aimed to bring in human-centred perspectives into their policy advice. In this Section, I discuss methods that participants reflected on their ways to introducing a human-centred narrative to their policy advice and foreground a tension between whether a change in narrative is sufficient to change a policy as participants reflect on taking interventionist approaches to gather human-centred insight.

P7 (TT) reflects on their use of personas to tailor policy advice to create more human-centred narratives from large-scale or quantitative data:

Often, we use personas to help people think through what would this mean for an individual? [...] That sometimes helps [policymaker] to develop a narrative that is a little bit more minister friendly and a little bit less [policy-walk] friendly. (P7)

Whilst this may lead to a better understanding of the individual, P2 expressed a criticism: *“We don’t know [how the policy] would affect different populations. We are not able to sit down and just think about it.”* Participants shared how they aim to engage with individuals and communities affected by (future) policy to inform their policy advice, in order to move beyond the limits of methods such as personas. P2 (HCI) described how, by facilitating sessions with representatives of communities, they evaluate the human-centredness of a policy before it becomes affective:

What we can do is [...] facilitate the representatives of those groups in carefully examining the document and surfacing some of the short comings. Then, we can facilitate those short comings to be improved in the policy document before that document becomes to affect law. (P2, HCI)

Whilst persona descriptions and evaluation of policy documents may enable policy informers to inform the narrative in a policy document, other participants speak about more interventionist approaches in order to strengthen their arguments and improve their potential impact. Through doing so, participants aim to demonstrate that their policy recommendations work in practice. According to P4, policy informing *“very much requires political action - not political rhetoric.”* (P4, TT) P4 continues by stating that it is important to *“make sure your political rhetoric is coupled to political action and will.”*

(Ibid.) P6 worked at a think tank that historically conducted their policy research in two phases: Phase One is about researching the problem; Phase Two considers the potential solutions to that problem. More recently, the organisation decided to create a new job position in their practice which added a 'Phase Three' to their projects:

The third, six-month, phase is just about trying to make the solutions that we have identified in the second phase happen. [...] We engage at a community level to help communities. [...] Normally, we would finish at the end of the second phase, but here we have got a full six months just to [...] impart some of the knowledge that we have and some organising tactics down to the local community [...] that will be able to lobby for this change to happen. (P6, TT)

Through mobilising and engaging with communities the organisation gathers practical evidence, resonating with participatory approaches within design research. Proving that something works, may function as an addition to the more conventional formats of evidence. In this, P8 (TT) sees a specific role for Design: *"Changing policy through Design. That is where Design will say 'well actually, this policy doesn't really work, because we tested it'"* (P8). P1 (TT), talks about this testing as a 'proof of concepts' in order to inform policy makers:

We are a kind of team that would do a proof of concept. [...] What we are basically saying is; there is a lot of hype around blockchain, we have actually done some experimental work in it. We have got this proof of concept. We think it is decent, [...] but obviously a proof of concept does not take all considerations that are relevant [into account] to know the widespread role of technology but begins to spread light on its potential application. (P1, TT)

As participants reflected on their approaches to introducing a human-centred perspective to their policy advice it became clear that practice-oriented approaches are taken to show the impact of policy ideas, rather than solely focusing on the narrative of a policy document. Several participants identified a role for design research to contribute to these interventionist approaches to gathering human-centred perspectives for policy.

In the following Section, I address the temporal aspect of policy. Participants reflected on the importance of understanding the potential impact of policy in the future and emphasised that it requires policy informers to consider different timescales when informing policy.

4.4.4 Developing future scenarios to inform policy

According to the participants, policies need to be resilient to the upcoming two years, five years, 20 years, or more. In this Section, I reflect on how participants describe the role of futuring in their practice and the different approaches they take to developing scenarios that can inform policy.

Whilst, as P7 argues, *“it is hard to imagine policies not having a future element to them”* (P7, TT) it is undesirable to focus solely on the future. Participants addressed the risk of being a ‘blue-sky thinker’, which appears to be a fundamental concern for think tanks. The notion of being ‘blue sky’ comes with negative connotations and, according to P4, has been an *“enormous criticism on think tanks”* (P4, TT). When asking P3 about the impact of policy on the future, she describes that policies should *“cover the immediate need and then see ahead.”* (P3, TT)

Being *“way into the future”* (P4, TT) does not only negatively influence the ability to have impact, it may also influence the funds available to policy informers to conduct their work: *“Funders were leaving this blue-sky thinking world and were much more focused on actual impact”* (P6, TT).

Simultaneously, with an increasing focus on evidence-based policymaking decisions appear to be informed by insight from the past or present. P7 (TT) reflects on this:

There can be no evidence about the future because it has not happened yet [-] so you can only use evidence about the past and the present to inform the future. [...] if something is basically being changing in a linear in the last 50 years and nothing is happening that makes you think that the system has changed, that is a reasonable thing to assume that it will continue to change like this. (P7, TT)

Whilst linear patterns from the past might give an indication of the future, working on policy issues that lack such linear pasts might require different approaches. P5 (TT) highlights that this might be particularly true for policies related to impact of emerging technologies:

In case of the future of AI, it is useless to say what is going to happen in 2019, you need to say what is going to happen in 2025, 2030 right. That is where the changes happen. But you need funds to be able to do that. (P5, TT)

The tension between the need to evidence impact whilst considering the future has led policy informers to respond to this challenge of temporality within policymaking. As it

became clear that policymaking is fundamentally a future-oriented activity, policy informers foregrounded the value of envisioning practices. Throughout the interviews, participants reflected on different future-oriented approaches with the aim to develop scenarios that will be considered by policymakers and politicians. In the following sections, I reflect on participants' learnings from experiences with using futuring practices to inform policy.

4.4.4.1 ***Structured processes to ensure legitimacy of future scenarios for policy***

In this section, I describe how participants aim to inform policymakers through developing advice that reflects on policy impact across different time scales. From their reflections it becomes clear that when developing future scenarios to inform decisions, it is important to describe the structure of the process through which the visions have come together.

As policies will require to be implemented for several years to decades, the implications of policies need to be considered at different points on the timeline. In order to understand the implications of policies over time. P4 (TT) describes the need to consider the 'multiple horizons' of a policy *"to make a difference in the short, medium, [and] long-term."* She furthermore highlights that *"it is not actually progressive to say; 'Have a rotten time now. You will still have a rotten time in five years, but in 30 years it will all be great'. If you are a genuine progressive, you should not privilege future generations over the common one! But equally, you can't privilege the current generation over future ones."* (P4, TT) P6 (TT) echoes this:

There is a valuable place in society for people putting big ideas about the future. People thinking about what the economy is going to look like in 10, 20 or even 5 years is quite a long kind of vision. But that is not enough in and of itself, you need to marry, couple that with active work on the ground. (P6, TT)

P7 (TT) explained how the methods used to gather insight around different horizons are essential to the quality of this future-oriented approach. He reflected that in a project around ageing he and his team took more speculative approaches to discussing scenarios of the future:

After a few attempts of trying to say: 'what do you think about the future' and not really getting any far, we commissioned some designers to come up with

some photo-real images of the future that explored some of things we were interested in. (P7, TT)

Whilst considered “a much more powerful way of getting [people] to engage with the future” P7 (TT) reflected that it “was harder to use the evidence that came out of that project, which I don’t think we really cracked.” P7’s reflection made clear that it is not immediately obvious how the outcomes futuring processes may be used as evidence. Whilst this presents challenges for the use of future scenarios in evidence-based policymaking practices, participants reflected on a different strategy to show the legitimacy of these scenarios. Several participants described that informing policymakers about the process of developing these horizons might make them fit in with contemporary practices of EBPM. Showing which strategies policy informers used to maintain the rigour and intellectual autonomy during their future-oriented research may be essential to justify its legitimacy as policy advice.

For example, P2 (HCI) developed an approach that guides people in “*analysing that very structured envisioning.*” Their method builds on incrementally introducing levels of complexity to the future scenarios. Through this approach their aim is to surface “*issues that regulators could hopefully start to think about*”. P2 illustrates this through a scenario that explores policy implications in the context of the uptake of an emerging technology:

[Identifying] the range of stakeholders [of a technology], [including its] indirect users. [...] Then, we try to get them [to think] about pervasive up-take, [...] not just one user. [...] We also ask them about temporality. Not just ‘this is today, or this is next week’, [but] over a five or ten-year period. (P2, HCI)

Through the interviews, it has become clear that participants anticipate that the further scenarios are placed into the future, the more uncertain these visions of potential futures become: Uncertainties increase as the granularity decreases. As the interviews progressed, participants reflected on a complementary method that focuses on the development of alternative scenarios, in order to allow scrutiny of different versions of the future. In the next Section, I will address this in more detail.

4.4.4.2 *Exploring alternative scenarios to anticipate potential policy futures*

As described above, in this Section I discuss participants' experiences of developing alternative scenarios in order to explore potential policy futures. Two approaches were highlighted by participants to enable them to compare different scenarios.

P7 (TT) described a process of 'scrutinizing' multiple versions of the future to focus on 'assessing their uncertainty and plausibility':

Map your dimensions of 'uncertainty'. [...] Construct those into scenarios and [...] look into the implications of those different [plausible] versions of the future world. [...] If we make [this] decision [...], does that work in all versions [...] or is there something contingent in the future? [...] We would have to change what we did in the past [or], if [it survives] the scrutiny in all versions of the future, you can be reasonably sure that [it is] resilient. (P7, TT)

Whilst the 'uncertainties' are not removed through this approach, they may lead to a richer and more nuance understanding of the potential futures of policy issues as they aim to take several plausible variants of the future into account.

Participants shared a second approach that uses international examples to investigate alternative scenarios to anticipate potential policy futures. P4 (TT) describes how, in her work on devolution, she brought together "lots of comparisons of Germany, Sweden, Denmark" as these countries "have got quite high degrees of devolution", as well as "Canada [who] have quite high levels of state autonomy." Depending on the topic she investigates and draws on policies from different countries: "I do a lot on education, so I use Australia quite a lot." (P4, TT) The international examples appear to enable policy informers to hypothesise the potential of their policy advice in the near future and provide them with 'proof' of their impact. This knowledge might furthermore become the basis on which further futures can build.

When such international examples are not available, there may be a need for different approaches to explore future scenarios. In the next Section, I discuss participants' exploration of speculative Design methods to visualise scenarios to support futuring practices for policy.

4.4.4.3 *Using speculative Design methods to visualise futures*

As participants reflected on their methods for developing scenarios of the future, it became clear that there may be a particular role for Design practices to support policy informers in these processes. In this Section, I discuss participants' reflections on how these methods may allow to involve citizens and test ideas and highlight challenges that come with aiming to inform policy with the outcomes of these processes.

Several of the participants furthermore reflected on their experiments with more Design-oriented approaches to conduct future-oriented research. For example, P7 (TT) brought forward a project on ageing, in which speculative Design approaches were used to trigger discussions around scenarios of the future, leveraging the creative expertise from Design:

After a few attempts of trying to say what do you think about the future and not really getting any far, we commissioned some designers to come up with some photo-real images of the future that explored some of things we were interested in. [...] Using speculative design as a way of communicating different version of the future to different members of the public to try and get people's re-actions to that. (P7)

Subsequently, the team aimed *"to use the evidence that came out of that project."* (P7, TT) P7 noted, however, that whilst they agreed that this approach *"was a much more powerful way of getting [people] to engage with the future"*, the team struggled to fit this work into the framing of the current EBPM culture. According to the participants reflections, evidence practices in policy may predominantly focus on appropriating knowledge from the past and present to fit specific policies. It may therefore be that scenarios of policy futures have on a different role than evidence. This is also observed by P8 (TT). She noted that more speculative research for policy attracts attention, though realises that this attention may not trigger policy change directly: *"We did a project [...] about speculative design and prototyping speculative policy. [...] I mean it didn't change anything, but it did get picked up by quite a lot of places."* (P8)

In Section 4.4.4.4, I reflect on the overall learnings from participants' experiences of developing and using future scenarios to inform policy. Although it is unlikely that these visions will be considered as evidence, participants' emphasised that the methods used for futuring should show structured research processes.

4.4.4.4 *Scrutiny and evaluation*

In order to be considered as legitimate input for advice, policy informers adapt research methods for their futuring practices. This Section details participants' perspectives on how they aim to position scenarios of policy futures as part of their policy advice.

Whilst evidence of the future does not exist, participants have shared some of their approaches in their search to back up assumptions of the future with evidence: Knowledge from the past enables policy informers to identify patterns that may support visions of the futures, and analysing examples of policy alternatives from across the world may show the impact these policies might have in the UK. Whilst Design-oriented approaches appear to facilitate thinking about policy futures and allows to involve people from outside the policy domain, the challenge seems to be the ability to turn the outcomes of these approaches into evidence for decision-making.

The participants' reflections highlight a challenge for policy informers to carefully scrutinise and evaluate the impacts of policy at different points on the horizon when building up a scenario. As contemporary practices of EBPM privilege evidence delivered through 'intellectually autonomous' and 'rigorous' research, these values appear to remain central focus when envisioning potential futures.

We can't predict the future, but research helps us do that. We don't know exactly whether this sort of policy would be completely successful or if it would be awful, but research helps us kind of gaze into the future in a way and help us find our paths better. (P3, TT)

Through the interviews, it has become clear that much of the work policy informers put into future-oriented approaches aims at minimising the need to, as P7 (TT) puts it, "making a guess" and maximising the understanding of the complexity of policy issues:

It is always about mapping out the plausible versions of the futures. It is not taking a pond and say this is what [to] expect. [...] You are lucky if you make a prediction and you are right. Don't leave yourself in needing to be lucky. Much better [is] to say; 'We don't know what this is going to be, so let's think about whether this decision makes sense in both versions of this future'. (P7, TT)

In Section 4.4, I have discussed the findings generated through the series of semi-structured interviews with policy informers working in HCI research and think tanks. The participants' reflections led to insights on what types of knowledge are preferred by whom, and the influence of informing policy at different stages of the process on how

evidence is presented. The latter two findings, Sections 4.4.3 and 4.4.4, detailed how human-centred and future-oriented practices were used by the participants in order to inform policymakers and politicians as successfully as possible. In the next Section, 4.5, briefly discuss each of the findings and conclude how through this Study opportunities for further research are identified.

4.5 Summary of findings

In this Section, I summarise the findings from the interviews with policy informers. The Study allowed me to gain an understanding of the potential to inform policy with the knowledge and outcomes of taking human-centred and future-oriented approaches. Through a series of semi-structured interviews gathered practice-based accounts from individuals that had experiences in taking such approaches.

The participants shared experiences foregrounding that just the sharing of outcomes of design research with policymakers is unlikely to result in policy influence. Through a thematic analysis of their reflections, I identified issues around capturing temporality and citizen voices in evidence and the need for making knowledge visible and relevant as evidence to policymakers.

In what follows, I summarise each of the findings from this Study. Then, before moving into my conclusion of this Chapter (Section 4.6), I describe an overall insight grounded in the findings of this Study.

4.5.1 What is recognised as evidence in policymaking

The interviews made clear how essential the notion of evidence is for current practices of policy informing. A strong aim is to minimise levels of uncertainty in the policy advice these professionals develop. According to the participants, quantitative and largescale forms of knowledge appear to be perceived as more certain by policymakers. Based on their reflection, these are in contrast with the evidence expectations from ministers and MPs as they may request more qualitative and testimonial evidence.

A middle ground in this tension seems to be the ability to demonstrate that recommendations and advice 'work'. Policy informers therefore appear to focus on

coupling interventionist work in the here and now with visions of the future and bringing citizens' voices into policy informing by actively engaging with communities. Simultaneously, as knowledge of what has proven to work in the past and present appears to allow for translation into policy evidence most effectively, participants have shared their approaches to making use of these forms of knowledge in human-centred and future-oriented processes.

4.5.2 Communicating evidence for policymaking

This section focused on the approaches of policy informers to communicate their advice. It became clear that policy informers have an active role as mediators, facilitating (indirect) collaboration between research, policy informers, policymakers, ministers and MPs. Focus lies on establishing an interactive dialogue, in which the policy informers act between the contrasting practices and worldviews of design researchers, policymakers, and other policy audiences. The analysis highlighted the importance of making the policymaking process visible to researchers in order to bridge some of these gaps. Furthermore, as the format in which the policy advice is delivered depends on the circumstances of the policy process, the participant highlighted the importance of knowing the stage at which the policy is. For example, levels of detail that are shared with policymakers differ across the policy cycle.

The participants emphasised how there is no linear relation between research and policy change. In addition to their aim to be visible through a wide range of communication channels, the analysis foregrounded the importance of being relevant. In their work to use their research to inform policy, participants shared how they aim to be 'in tune' with policy dialogue in order to ensure their advice is communicated in a way that is according to the 'rules and language' of the target audience.

4.5.3 Using human-centred approaches to inform policy

Participants detailed several human-centred approaches they developed and utilised to inform policy. They emphasised the importance of coupling 'political rhetoric' with action. Whilst personas were brought forward as a helpful tool to trigger human-centred thinking, this simultaneously was criticised. As 'it can't be thought up' what target groups of a policy might experience, interviewees highlighted more interventionist approaches. One participant explained how they work with representatives of policy

target groups to evaluate the language used in policy documents before they are implemented. Other participants shared their work that engages communities in order to achieve policy change.

It appears that Design-oriented methods can take an active role in validating the impact of such interventionist approaches: Participants reflected on Design's ability to test or provide a proof of concept. Whilst not providing the solution to the policy problem, design research allows 'to begin to spread a light on issues.'

Simultaneously, the analysis of the interviews foregrounded a tension between the need for individual accounts and larger data sets when informing decisions. Whilst ministers and MPs allegedly are interested in hearing the 'human voice', according to the participants, policymakers are focused more on gathering macro evidence. These differing expectations challenge the kind of research outcomes policy informers are able to bring forward as evidence in their policy advice.

4.5.4 Developing future scenarios to inform policy

When aiming to inform policy that is evidence-based, focus lies - where possible - on gathering knowledge from the past and present. Nonetheless, not all policy issues have such historic data available. In those cases, a need exists for different approaches. Participants shared how they use envisioning approaches, which foreground a difficult challenge in turning the outcomes of such approaches into 'evidence' for policy advice. Their methods aim to limit the need 'to make a guess' through facilitating strategic and structured scrutiny of the visions. There appears to be an important focus on ensuring intellectual autonomy and rigour in their research.

Participants spoke about envisioning scenarios at 'multiple horizons,' in which visions of the near and far future are considered equally. Approaches focus on incrementally introducing levels of complexity, whilst others focus on marrying active work in the here and now with visions of the advice in 10, 20 or more years. Furthermore, developing alternative scenarios appear to 'map out the uncertainties' of the future. Whilst evidence is not always available, international examples are brought forward as valuable sources of knowledge – or even 'proof' - when discussing the potential of how policy issues can be responded to differently.

In gathering future-oriented knowledge to inform policy, Design-oriented methods appear to foremost facilitate future-oriented thinking through the Design of materials that allow, amongst others, to involve people from outside the policy arena in these processes.

Overall, Study 1 highlighted how policy informers mediate an interactive dialogue between the difference practices and needs of policymakers and design researchers. It became clear that policy informers carefully manage their communication style depending on how, when and whom with knowledge is shared need. As such, when aiming to inform policy, the knowledge and outcomes of design research needs to be contextualised and made relevant to the world of policymakers. In addition to overcoming challenges of appropriating human-centred and future-oriented forms of knowledge for policy, I argue that designers need to develop a set of skills that allows them to share their knowledge in ways that are understood by policymakers. As, I identify a need for research to better understand how the skills, methods and practices of Design are currently applied in government.

4.6 Conclusion

In this Chapter, I reported on the study conducted in collaboration with policy informers working as HCI researchers and at think tanks. Through 11 semi-structured interviews, I gathered a better understanding of the role Design may have in practices in and around policymaking. Participants reflected on their experiences of informing policymakers and politicians, detailing how they gather knowledge and prepare this to function as evidence in their policy advice. The findings from the thematic analysis foregrounded challenges and opportunities when informing policy with knowledge generated through human-centred and future-oriented practices, highlighting that the types of knowing that come from design research are likely to always be contested in evidence-based policymaking. Nonetheless, the findings also surfaced opportunities for the use of Design. When policy issues lack a clear policy history, or past and present trends may be disrupted, Design methods could contribute to futuring practices in policymaking. Supporting policymakers through providing methods for structured scenario development, design researchers could help those working in and around policymaking to develop futuring practices that are rigorous and intellectually independent.

Participants furthermore shared experiences of their mediating role within the complex network of policy actors, emphasising that policy advice should be tailored to the specifics and circumstances of the audience. Referred to as 'recipient design' it made clear that designers will need to be able to effectively communicate their approaches to a policy audience, especially as methods from Design are unlikely to align with those familiar to policymakers. It also highlighted the role that policy informers take as mediators between policy and research professionals. Given the many methods of facilitation by Design, there may be an opportunity to consider the potential of Design in mediating roles within policy. In both cases, the learning that - in order to contribute to policy most efficaciously - designers may need an in-depth understanding of policymaking practices is needed.

Exploring in more detail how Design methods are currently used in policymaking within UK Government, may help to better understand how the outcomes and processes of Design should be communicated to a policy audience. In Chapter 5, I therefore report on a participant observation conducted at UK Policy Lab, a unit at central UK Government that explores and develops Design methods for and with policymakers.

Chapter 5 Design-oriented methods to facilitate and research policy design processes

This Chapter reports on the second study conducted as part of the thesis. From Study 1 insight was gathered (as reported in Chapter 4) that knowledge producing methods from Design are unlikely to align with those familiar to policymakers, and that - partly consequently - designers may need an in-depth understanding of policymaking practices to make the knowledge they generate through Design research fit for policy purpose. In parallel, I gained the insight that there may be opportunities for futuring practices of Design to inform policymaking when policy issues lack a clear policy history, or when past and present policy trends may be disrupted.

These insights and assumptions combined resulted in a shift in the conceptual focus of the research: From focusing on how Design research may contribute to policymaking *from the outside* in, there is a need to understand how Design research might contribute to policymaking from *inside* of government to gain insight into how policymakers may be able to understand and integrate Design knowledge in their practices.

For this Study, I conducted two months of fieldwork as a participant observer at UK Policy Lab (henceforth referred to as Policy Lab). Working as a *policy designer*, I gathered experiences of working with Design methods appropriated for the policy context. Through this, I generated findings into how designers working at Policy Lab position and leverage their skills and knowledge to contribute to policymaking practices.

In Section 5.1, I introduce Study 2 by building on the findings from Study 1 and the literature review on PSI-labs in Chapter 2. Section 5.2 includes the research question of this Study, a description of how I approached the participant observation and describe how this Study focuses on the role of Design in the Open Policymaking Toolkit and the professional practices of policy designers. I specify the data collection and analysis in Section 5.3 and elaborate on the strategies for taking fieldnotes and conducting semi-

structured interviews as part of the participant observation. Here, I provide an overview of the participants and describe the specifics in the analysis of Study 3.

Then, in Section 5.4, I report on the findings generated from the fieldwork conducted at Policy Lab. In Section 5.4.1, I reflect on how policy designers leverage design thinking methods as a means to facilitate reflective practices that address the complexities in policy design processes due to participants' different understanding of the policy problem. I discuss several methods that were used during Policy Lab's project and training workshops as I was conducting my fieldwork and highlight how these have been applied and adapted to differences in priorities and beliefs, assumptions, biases, knowledge and expertise amongst the participating policymakers and stakeholders.

In Section 5.4.2, I focus on how senior policy designers at Policy Lab recognised that a lack of knowledge about prototyping amongst policymakers presents a barrier to making prototyping part of the policy design process. I describe how participants reflected on how this may influence how and if policymakers move forward with prototypes produced by Policy Lab. The interviews made clear, furthermore, that the use of prototyping as a generic term in Policy Lab indicates the lack of a framework that supports policy designers in communicating their potential role in policy design processes. Overall, I found that it is a particular challenge for Policy Lab to respond to the limited knowledge of policymakers on prototyping in order to enable them to evaluate prototypes as a way of reflecting on the quality of a policy idea.

Section 5.4.3 focuses on Policy Lab's design of tools to create a conversational space when researching policymakers' practices. It appeared that using visual tools to reflect on policy processes are a valuable way to gain an overview of policy practices as they simultaneously allow policymakers to reflect on their personal experiences of these practices. Placing policymakers in the role of experienced expert, in particular, appeared to give credit to existing practices to which Design methods may contribute. I found that the design of visual representations as outcomes of these inquiries by Policy Lab are a constructive way to support, expand or progress policy design practices rather than overwriting them with alternative practices.

In Section 5.5, I sum up this Study's findings and the general insight gained through this work. The focus on reflection enables Policy Lab to facilitate processes that highlight the complexities in policy design process. These practices appear to aim at crafting flat hierarchies those involved in the collaboration with Policy Lab, whilst keeping reflective practice as an implicit contribution by Design.

Unlike the implicit mobilisation of reflection in Policy Lab's projects with policymakers, when researching policymaker's practices, policy designers explicitly mobilise and facilitate reflection through Design-oriented methods. Bringing policymakers and policy designers together in one conversational space, policymakers are invited to reflect on their experiences of policy design practices. Policy Lab uses the findings to identify where and how in policy design practices they could introduce their Design-oriented methods.

In Section 5.6, I draw the conclusion that little is known on how and if the Design-oriented practices were continued by policymakers after their collaboration with Policy Lab, and I describe an opportunity for further research.

5.1 Background

Informed by the findings from Study 1 (Chapter 4) on opportunities and complexities of informing policy with the outcomes and knowledge from design research, I identified a need to explore in more detail how Design methods are currently used in policymaking within UK Government, as this may help to better understand how the outcomes and processes of Design should inform policy. In this Section, I describe the background to this Study, which is informed by the findings from Study 1, a review of literature on PSI-labs from Chapter 2, and the notion of *open* policymaking in UK Government.

The interviews with policy informers in Study 1 made clear that informing policy with knowledge generated through human-centred and future-oriented practices may likely be contested in evidence-based policymaking. At the same time, Design methods could support policymakers in developing futuring practices that are rigorous and intellectually independent from partisan agendas. Furthermore, the Study highlighted an opportunity for Design-methods to be applied in mediating roles within policy. In order to understand how to make such contributions to policymaking practices, I deemed it

necessary to gain insight into ways Design methods are introduced to policy practices at UK central government.

As discussed in Chapter 2, PSI-labs are set up as spaces for innovation and experimentation in policymaking practices. These units present opportunities for exploring Design-oriented methods to provide alternative practices to conventional policymaking approaches. On the other hand, these teams are criticised as these labs may lack a detailed understanding of current policymaking practices. Several scholars and commentators therefore argue that Design methods for policy are advocated for without adequate consideration of the constraints placed on policymakers and other members of government. Looking more closely into the UK Policy Lab - UK Government's central PSI-lab – nonetheless remains to be a valuable context to study. This as UK Policy Lab (henceforth referred to as Policy Lab) brings Design-oriented practices into government to support the development of *open* policymaking practices.

5.1.1 UK Policy Lab and the Open Policymaking Toolkit

According to the UK Government website, open policymaking is focused on using amongst others “*collaborative approaches*” and “*testing and iteratively improving*” during the policymaking process (Policy Lab, 2021a). Furthermore, in order to open up existing policymaking practices, open policymaking emphasises the importance of including a wider range of knowledge and expertise in evidence gathering and decision-making processes. Central to introducing open policymaking to UK Government is the Open Policymaking Toolkit - henceforth referred to as OPMT (Policy Lab, 2021b). The OPMT is an online and publicly accessible database of tools and methods for open policymaking. This toolkit was inherited by Policy Lab in 2014, which has since been developing Design-oriented practices for the toolkit.

In addition to Design-oriented professionals, several other professions are part of Policy Lab, making it a multidisciplinary team. For example, as part of most projects, video ethnographers based at Policy Lab spend time with citizens that fit the target group of the policy project. The edited films – capturing the portraits of citizens, their experiences and behaviours – are shown to policymakers in the early stages of projects to show who

the government is making the policy for. Two members of the Policy Lab team have also worked as policy makers.

To visualise their process, Policy Lab draws on the Double Diamond by the Design Council (Drew, 2021) (see Figure 5.1). Emphasising a process of convergent and divergent, the simplified visual representation is often introduced to as the framework for design thinking. The model is appropriated by Policy Lab to fit policy contexts and highlights Policy Lab’s role in facilitating and supporting policymakers. It categorises four different phases: ‘diagnoses’, ‘discovery’, ‘development’ and ‘delivery’.

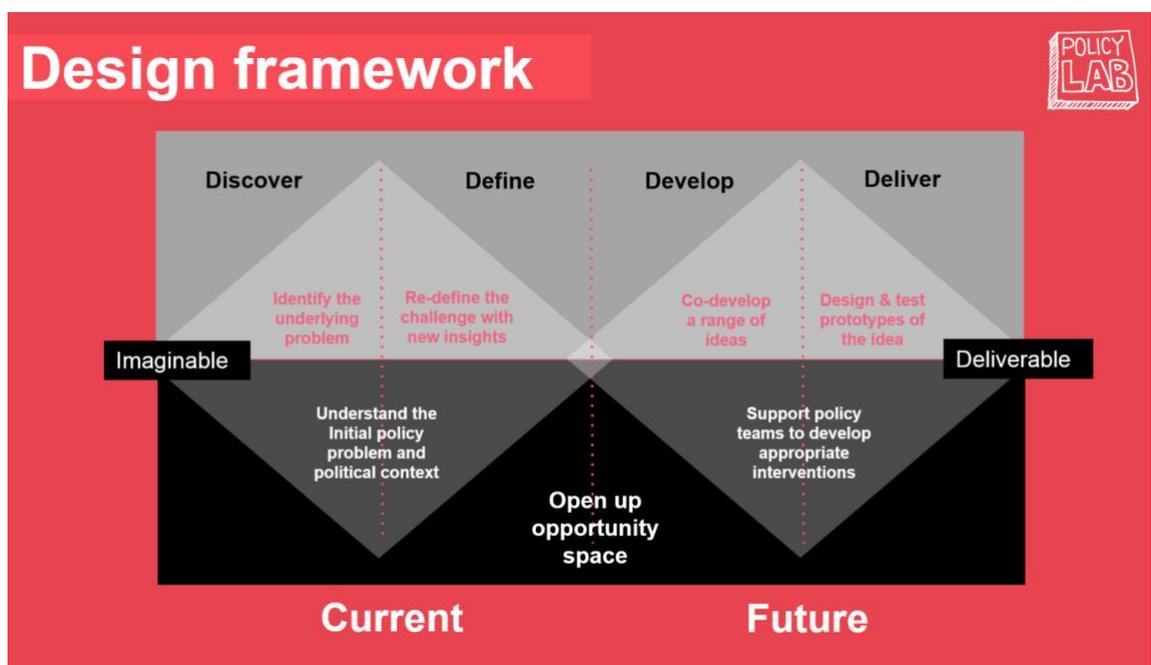


Figure 5.1 Policy Lab’s Double Diamond framework. The Double Diamond framework as by Policy Lab for its use in policy design. Adapted from the Design Council’s double diamond framework to design thinking. (Siodmok, 2019) Copyright: UK Policy Lab

5.1.2 Lucy Kimbell’s 2015 ethnography of UK Policy Lab

Policy Lab’s responsibility for expanding the OPMT suggests it may have a central role in contributing Design methods to policymaking practices and as such is of interest to the academic community researching the influence of Design on policymaking.

In 2015, during a year-long ‘academic fellowship’ at UK Policy Lab, Service Design scholar Lucy Kimbell conducted ethnographic and interview research to review what design-

based approaches are brought to policymaking, and the difference they make to policymaking. (Kimbell, 2015)

Reporting on *“four findings and short case studies”* (ibid., p7), Kimbell shows that many of the methods in the OPMT are similar to those used in human-centred design research. Design-methods such as personas, journey mapping, user research, ‘hack days’, and prototyping are appropriated for the policy context. She found that these methods were used by Policy Lab to:

1. *“Set up and enable collective learning cycles in which problems and solutions co-evolve and problems are reframed.”* (Ibid., p9)
2. *“Enable abductive approaches which generate new insights and ideas which are plausible but provisional.”* (Ibid., p31)
3. *“Shift the focus to people and how they experience things, which reorders the policy area.”* (Ibid., p44)
4. *“Stage occasions and spaces in which people from inside and outside of government are able to participate in new ways in the activity of policy making.”* (Ibid., p60)

Gaining further understanding of Policy Lab’s practices, four years after Kimbell’s fellowship and report, may provide additional insight into the role of Design in policymaking and policy design practices in UK Government. In particular, understanding how the designers at this team – so called *policy designers* – use practices, methods and skills of Design may operate at the nexus of evidence and decision-making in policy design.

5.2 Study 2 approach

Informed by the identified need to research the use of Design from within UK Government and the specific remit of Policy Lab to develop Design-oriented methods for open policymaking practices, a collaboration with Policy Lab was sought to conduct a participant observation for the second Study. For two months in 2019, I gathered experiences and reflections on the use of Design at UK central government, to research the question central to this Study:

How might the practices, methods and skills of Design be integrated into policymaking practices?

In this Section, I introduce the approach taken to research the use of Design by Policy Lab, in which the professional practices of *policy designers* are the central focus of the participant observation. This as they adapt and develop Design-oriented methods for policymaking.

Taking on the role of policy designer allowed me to look specifically into Policy Lab's Design practices, and how the expertise, skills and knowledge of designers contributes to new practices in policymaking.

5.2.1 Research method

As described in the methodology Chapter, this thesis takes a constructivist approach to understanding the role of Design in policymaking and policy design practices in UK Government.

Each of the studies addresses policymaking practices at UK Government from a different perspective. In this Study, I research the role of Design practice in policymaking from the perspective of policy designers working at UK central government. I focus on understanding their professional practices, how they adapt Design methods for the specifics of policymaking and introduce Design-oriented practices to central UK Government through collaboration with policymakers. In order to gain contextualised and situated insights, I conducted a participant observation during which I participated in their practices as *policy designer*. (More details on the chosen method can be found in Chapter 3, Section 3.2.1.2.)

5.3 Data collection and analysis

In this Section, I detail how data was collected and analysed for Study 2. I spent two months conducting fieldwork at Policy Lab to experience and observe professional practices of policy designers working at UK central government. To gain insight into how these professionals mobilise Design methods for policymaking, a range of activities was undertaken (which are listed later in Appendix F). I gathered data through taking fieldnotes, capturing visual materials, and conducting semi-structured interviews.

As described in Chapter 3, Section 3.2.2, fieldnotes described observations, and reflections on unrecorded conversations which were conducted in the course of participating in Policy Lab’s daily practice. The notes did not follow a specific format in order to allow for free expression of what was noted. Visual materials were gathered during the Study, including those that I designed for projects during my participation at Policy Lab. To complement the notes and visual materials, there are 4 semi-structured interviews conducted with policy designers working at Policy Lab. The interviews were transcribed verbatim before the start of the analysis. An overview of the interview participants can be found below (Table 5.1). In Section 5.3.1 and 5.3.2, I describe the data collection strategies used.

Role	Participant code	Experience working for Policy Lab	Professional Background	Experience working for government
Senior Policy Designer 1	SPD1	Started as a junior policy designer in 2017, become senior policy designer late 2018	Design	None before working for Policy Lab
Senior Policy Designer 2	SPD2	Started at Policy Lab early 2019	Policy	Has several years of experience working at different parts of central government before coming to Policy Lab.

Table 5.1 Participant table Study 2. (Continued)

Junior Policy Designer 1	JPD1	Started as junior policy designer late 2018, was hired as the first speculative designer	Design	None before working for Policy Lab
Lead of Policy Lab	LPL	Worked for policy since the first year of policy lab	Policy	Has several years of experience working at different parts of central

				government before coming to Policy Lab
--	--	--	--	---

Table 5.2 Participant table Study 2.

Participant table of the different members of Policy Lab interviewed as part of the participant observer study.

5.3.1 Fieldnote taking and gathering visual material

In the same notebook, I wrote down observations and reflections on Policy Lab’s practices and made project-related comments. As such, I created a document that interwove the experience of working as a policy designer with the observations made as a researcher. I made notes as I made observations - reflecting on the observation in the moment – or shortly after, for example when they were part of a conversation with a member of Policy Lab. (Examples of fieldnotes made during the participant observation can be found in Appendix N.) Furthermore, at the end of each week, I wrote a reflection of my experiences that week, highlighting specific instances keeping track of mid-level analytical reflections during the participant observation. These reflections informed meetings with my supervision team or formed a documentation of the discussions that arose during these supervision meetings.

I took several photos during the projects as well as using pictures that were taken by members of Policy Lab. Pictures captured presentations that were given, materials that were designed for projects, setups of sessions, and moments of everyday work. Some of these photos are integrated in the analysis. However, to maintain the confidentiality of much of the work taking place at Policy Lab, these photos functioned mostly as visual note taking and are not part of the analysis this Chapter provides.

5.3.2 Interview structure

After reflecting on the observations made and experiences gathered during my participant-observation fieldwork at Policy Lab, I conducted semi-structured interviews with two senior policy designers and the lead of Policy Lab to gather their perspectives on these reflections. This Section describes the structure for the interviews.

The departure point for the interviews was my observations and reflections on how members of Policy Lab had spoken about the notion of prototyping as part of their Design-oriented practices in policy. Throughout my notes there were reflections written down on how and when members of Policy Lab had referred to prototyping, though it seemed there was no coherent understanding of what prototyping is within a policy design context and how prototyping occurs at different levels of fidelity and for different purposes. To gain a better understanding of policy designers' understanding of prototyping in policy design, these notes – consisting of experiences and observations gathered whilst working on projects, reading through documents, and other activities - informed the questions for each specific interview. Generally, this meant that six questions were prepared to probe further discussions on the aspects of prototyping as an approach to policy design. In doing so, the interviews allowed for a higher-level discussion on what defines prototyping in Design and how Policy Lab aims to introduce this to policymaking practices.

5.3.3 Data analysis

As outlined in detail in Chapter 3, Section 3.2.3, the data collected during the study was analysed thematically (Braun and Clarke, 2006). Specific to this Study was the analysis of fieldnotes, which led to additional steps in the early phases of the analysis. The specifics in the analysis of Study 2 are included in this section and are in addition to the analysis method described in Section 3.2.3.

Phase 1 - As a first step into the analysis, several reflections describing the context of Policy Lab were noted. Whilst most of these were documented in one of the notebooks, these stories were rewritten to capture more detail than when initially written down. Secondly, a close reading was done of the notebooks, marking and digitalising excerpts that provided some insight into practices at Policy Lab. The stories and notes together were the input for an initial thematic clustering. This inductive exercise resulted in capturing the breadth of the dataset.

Phase 2 - The writing style in the initial themes was descriptive and included little contextualisation or analytical reflection. In order to allow for a more detailed narrative, the themes required fine tuning. Rather than aiming to cluster all the notes into themes,

this phase aimed at specifying the aspects of practices at Policy Lab that had been particularly interesting. Aiming to understand how policy designers at Policy Lab mobilise Design methods for policymaking, the themes started to focus on practices that gave insight into the ways policy lab aims to influence practices of policymakers and the role policy designers have in these practices. This led to three themes focusing on how policy designers research policymakers, unsettle policymaking practices, and balance a role for Design as facilitator and provocateur.

Phase 3 – After the three themes were identified, the analysis focused on developing a richer narrative within them. For that, a close reading of the themes and transcribed interviews was conducted. Across these sources, sections were highlighted that reflected ways in which policy designers were (not) able to mobilise Design methods for policymaking, and where limitations or opportunities for Design were influenced by the circumstances under policymakers at UK Government work.

Phase 4 – In the last phase of the analysis, focus was laid on bringing forward experiences and observations of decision-making processes of policy designers, the influence of the organisational context, and my interpretation of these experiences and observations as a design researcher. (Examples of coding and reflections part of analysing the data can be found in Appendix N.)

5.4 Findings

In this Section, I discuss the findings from the participant observation at Policy Lab. Analysing observations and experiences of policy designer practices revealed that their design practices move beyond introducing a human-centred perspective to policy design. Throughout the following Sections, I will argue that a major contribution by policy designers is their Design-oriented methods that support policymakers in developing reflective practices. As the impact of these methods on policymakers' practices became clear through the interviews with policymakers during Study 3 (discussed in Chapter 6), I unpick how Policy Lab leverages reflective practices to craft flat hierarchies (Section 5.4.1), evaluate policy ideas (Section 5.4.2) and open up debate around policy design practices (Section 5.4.3).

Before moving into these Sections, I describe the office space of Policy Lab and give a broad description of what appeared to be the major phases of collaboration projects between Policy Lab and policy teams.

At the start of the study, in early 2019, Policy Lab consisted of eight civil servants, four PhD students on placement and two civil servants from other departments on (short) placements. At the time of the fieldwork, the team was part of UK Government's Cabinet Office²³, based at the building of HM Treasury, and its members worked as civil servants.

Policy Lab is based on a floor with about 200 civil servants working for different government departments. The floor is open plan, where groups of six desks grouped according to the different departments. At the end of most rows a banner identifies the relevant department in which people work. Most of the desks are very clean, with little other than a computer screen and a phone on the desk. The desks populated by Policy Lab, in contrast, have flyers, post-its, and books on them. At the top of the row of desks, Policy Lab has an open IKEA cabinet with boxes filled with 'how can we...'-challenge

²³ The Cabinet office "*support[s] the Prime Minister and ensure the effective running of government. [They] are also the corporate headquarters for government, in partnership with HM Treasury, and [...] take the lead in certain critical policy areas*" (Cabinet Office, Gov.uk).

cards, 'hopes and fears'-cards, evidence cards, (these cards will be explained in Section 5.4.1) as well as markers and post-its.

In their work for UK Government, Policy Lab collaborates with policy teams and departments to introduce policymakers to new tools and methods for policymaking. Two major strands of work are; facilitating workshops to introduce methods of the OPMT as part of civil service training or policy schools; and facilitation of open policymaking projects. Both training and projects are initiated by policymakers, who consult Policy Lab for their expertise on open policymaking.

A project collaboration with Policy Lab is generally initiated at the start of a policymaking process. The process goes through several phases, which seem to start – where possible – with ethnographic user research. This user research is conducted by video ethnographers that are part of Policy Lab. They follow citizens that fit the target group of the policy project to better understand their experiences of the policy context. The video footage is edited into short films capturing portraits of citizens' experiences and behaviour.

The user research is followed by a workshop with policymakers and stakeholders to discuss the results of the video ethnography, set the challenge the policy team aims to tackle and go through an initial ideation for policy ideas. In this first workshop, Policy Lab introduces the participants to a range of tools and methods developed for the OPMT. These materials are tailored to the specifics of the policy project and aim to allow policymakers and stakeholders to get into a human-centred and design thinking mindset. This workshop is run by the members of Policy Lab with both a Design and a policy background.

The outcomes of the workshop are developed in further detail by designers in their role of policy designer at Policy Lab. They design materials related to the suggested policy ideas and test these policy prototypes with citizens to gather feedback. The feedback is analysed by Policy Lab and the derived insights are used to inform a second workshop with the policy team and stakeholders. In this second workshop, the participants evaluate the outcomes of the user-testing and conclude the insights gained throughout

the process. After this, Policy Lab ends the process by bringing together a project report which includes the prototypes developed during the process. These materials are handed over to the policy team at the end of the collaboration with Policy Lab, after which the policy team continues the policy design process.

5.4.1 Facilitating reflective thinking to craft flat hierarchies

In this Section, I reflect on how policy designers leverage design thinking methods to facilitate reflective practices that address the complexities in policy design processes due to participants' different understanding of the policy problem. I discuss several methods that were used during Policy Lab's project and training workshops as I conducted my fieldwork and highlight how these have been applied and adapted to differences in perspectives.

When talking with policy designers about the role of Policy Lab's workshops, their response focused on the aim of these workshops to elicit empathy for the policy target group. They argued that the workshop activities ask participating policy makers and stakeholders to visualise the target group of the policy. According to the lead of Policy Lab (LPL), the aim of these methods is "*to work backwards.*" My observation of one of these workshops at the start of a Policy Lab project, is that this means policy designers aim to move participants away from a solution-oriented mindset and instead focus on understanding the policy problem first. More importantly, as I observed the workshop it became clear that - rather than eliciting empathy for the policy's target group - much time is spent using methods and techniques that enable participants to reflect on their different perspectives around the project's policy challenge.

For example, during an exercise called '*Hopes and Fears*', workshop participants were presented with a set of pictures that aimed to trigger them to think about the barriers and opportunities they see for the policy issue. Asking the participants to express their hopes and fears for the policy by coupling these with pictures intended to avoid the use of 'standard' answers related to the policy challenge. By going beyond these default answers, the exercise aimed to give participants the opportunity to express their individual perspective. As such, expressing participants' *hopes and fears* appeared to focus on surfacing the complexities that derive from the participants' differing beliefs

around what should be prioritised when addressing a policy challenge. Sharing this interpretation of the exercise during an interview with SPD2, she responds:

What you are touching on is about the amount of navigating that has to happen in order to make something [a policy challenge] live in these types of spaces. It is not this clear kind of transaction of 'we spotted a need, we decided what to build and then that thing gets built.' There is a huge process of negotiation that has to go [before that] in order [to] deliver anything in the policy context. These things [policy ideas] don't live in isolation, they live in a complex context of what is a political priority or what does a team need to do by the end of a financial year cycle. (SPD2)

Policy Lab's approach to reveal perspective-based complexities such as policymakers' priorities appears to enable policy designers to contextualise and make these complexities more explicit as part of negotiation processes taking place in policy design.

5.4.1.1 *Reflecting on persona descriptions to surface assumptions, biases and gaps in knowledge*

As I continued the analysis of observations and experiences of other Design-oriented methods, it became clear that the perspectives of workshop participants are furthermore made up of their biases with regards to the policy challenge. An adaptation of the Design-oriented *persona* exercise is used by policy designers to make these biases explicit, revealing the differences amongst policymakers and reveal the influence this has on the policymakers' assumptions about the best response to the policy problem. Personas are a frequently used tool in human-centred design to develop a sense of the targeted user group. They aim to make the target group of a research project 'human' and easier to empathise with during the Design process.

According to SPD1, Policy Lab develops personas as a way to "*prepare policymakers to involve citizens in their process.*" (SPD1) During my fieldwork, I was asked to develop persona descriptions of policymakers (Figure 5.2). Whilst these descriptions are unusual in that they describe policymakers rather than a targeted citizen group, the style of descriptions is common in Policy Lab's practices.

Senior policy advisor



Name: Esther
Age: 45
Lives in: Notting Hill

"I love it when it is time to leave the office and talk with stakeholders. Having those in-depth conversations about how they feel about specific topics is very rewarding."

With 15 years of experience, Esther has been part of many different policy teams. Moving around the different departments every 3 or 4 years, she has expertise on a broad range of policy areas. She loves to share this knowledge with people that are new to the civil service. Amongst her colleagues, she is praised for her skills in setting up stakeholder engagements which are a big part of consultation projects. She knows how intense those processes can be and sometimes wishes they could be a bit lighter. Her practices work, but might not be the most efficient.

Once a month, she meets her friends whom she has known since university. She looks forward to hearing the diverse stories that this group has to tell each other. They can't help to joke amongst themselves how it is always: the same place, at the same time, with the same coffee.

New policymaker



Name: Jo
Age: 24
Lives in: Peckham

"Every day I learn something new. Although I learned to do qualitative research at university, it is incredible to be part of a consultation that deals with 2000 responses!"

As a trained social scientist, Jo joined the civil service about a year ago. In her first few months, she was put on a consultation project that had just gone through internal clearance.

Not being familiar with the practice of running a consultation process, she primarily aimed to support her team members in their activities.

She looked up most of the forms and information available on consultation, but feels like she learned most from her direct colleagues.

Jo is quite an enthusiastic cyclist and enjoys finding her way around London. Originally being from the North East, she enjoys living in "the big smoke" but sometimes misses the rural life. She came to London to learn about government from within, hoping to take her experience with her into future jobs and elsewhere in the country. She is someone who does not fear an adventure, whether that is in the wild, in the city, or in her work. She has a thing for getting the best noise cancelling headphones and keeps an eye on technology that improve people's basic needs in lives.

Figure 5.2 Examples of persona descriptions.

Two examples of personas of policymakers developed for the co-creation workshop as part of the young people engagement project. The descriptions are informed by findings from interviews with policymakers. Copyright visuals: Policy Lab

Policy Lab adapted the persona exercise into their work with policymakers by adding an additional part in which participants are asked to reflect on the descriptions. During a workshop, policymakers and stakeholders are asked to populate a blank persona sheet and to put down their general ideas of a person who fits their target group. At this point, they are asked to "annotate the person on the sheet, draw some things and write a story alongside it with a few questions." (SPD1) After populating the blank persona,

participants are challenged to reflect on their description to identify whether the persona is stereotypical or representative. This second step of the exercise challenges participants to focus on what they believe may be stereotypical elements of their persona to illustrate the biases that have influenced the description. By doing so, policy designers aim to enable participants to reflect on what is unknown about the target group within the policy team, and trigger questions about the assumptions made to fill in these gaps: What are stereotypical elements in your current description? Where do you think your understanding of your target group is biased? What don't you know about your target group? What do you need to find out to get a better understanding of the policy's target group?

The value of introducing a second part to the traditional persona exercise became clear when observing a 2-hour workshop facilitated by Policy Lab as part of a two-day policy school. I joined the workshop as an observer, supporting SPD2 in handing out materials when needed. The session introduced policymakers to the OPMT which included a shortened version of the persona-exercise. In this instance, there was not enough time to complete the exercise in full. As such, the participants were asked to populate a blank persona sheet but did not reflect on them to show any biases, stereotypes, and gaps in knowledge about the target group. This caused an unsettling experience for a participating policymaker who was new to the policy design practice and who had recently finished some civil service training on unconscious bias in policy design.

This participant expressed his concerns during the session as he felt that describing a persona seemed to build on rather than prevent biases from guiding his process. After the workshop finished, I asked him if he could explain to me in more detail his concern regarding the persona exercise. He shared how he felt uncomfortable about populating the blanket persona as he ended up describing a very stereotypical version of his target group. This, according to him, was against the training on unconscious biases he had received online as part of the civil service training programme. According to the participant, during this course, it was *"drummed in to not fall back on unconscious biases about a target group when facing a challenge in the process."*

As an observer of the workshop, I felt I could only agree with him: I have a personal scepticism with regards to personas due to their risk of being used as an informational

description of the 'real user' rather than an inspirational description of a 'fictional user'. Nonetheless, I had previously observed Policy Lab's appropriation of personas and seen how it leveraged reflection by encouraging participants to reflect on the assumptions made in a persona description as a second step of the process. Informed by this learning, as I responded, I stepped out of my observer role and into the participant role as a policy designer at Policy Lab.

I shared with him how I had learned during my fieldwork that Policy Lab normally challenged participants to reveal these assumptions and biases in their persona descriptions through reflecting on them. The explanation seemed to put the participant more at ease about the use of personas as he responded by saying that it made "*much more sense now.*"

As I found from interviewing policy informers in Study 1, recipient design is key to informing policymakers with new evidence. This is likely to apply too when informing policymakers new methods. Understanding the instance at the workshop from the perspective of recipient design, it emphasised the importance of taking the time to introduce and adapt to new practices and how this may be something at odds with the high-paced culture of policy design at UK Government.

Given that workshops like these are likely to take no more than one or two hours of a policymaker's day, rather than trying to introduce as much of a Design approach to policymaking, I felt, more effective may be to focus one or two tools in order to go into more depth and reflect on how these may fit in with or replace policymakers' existing practices.

Going back to Policy Lab's two-step approach to personas: it appears to be a valuable tool in identifying assumptions and how these may be influenced by biases and gaps in knowledge amongst the workshop participants. Reflecting on the persona descriptions from different participants may furthermore reveal that policymakers may have different biases and rely on different knowledge when addressing a policy challenge, which likely needs to be negotiated when designing a policy. This illustrates that differences in the knowledge and expertise of policymakers, too, are likely to influence their perspective on a policy challenge, adding another layer of complexity to developing a shared understanding of a policy challenge amongst policymakers and stakeholders.

Reflecting on SPD1's introduction of Policy Lab's workshops as "*evidence-based co-creation*"- suggesting a marrying of open and evidence-based policymaking practices - I unpick the complexity of differing knowledge and expertise amongst participants by discussing a method called '*evidence safari*' (Figure 5.3).



Figure 5.3 Example of an evidence safari. Workshop participants reading evidence cards attached to a pin-board across the room. Copyright photograph: Policy Lab (Bruce, 2018)

5.4.1.2 Making a difference in knowledge and expertise explicit through evidence safaris

As reviewed in Chapter 2, based on their interpretation of an interview study with senior civil servants, Bailey and Lloyd (2016b) argued that policymakers tend to view knowledge and expertise as a capability of the individual. Furthermore, according to the lead of Policy Lab (LPL) who has a background in policymaking, policymakers tend to "*boast about their knowledge*" seemingly suggesting that a policymaker's knowledge and expertise is considered a tool of power in evidence-based policymaking practices. In this Section, I discuss how Policy Lab's *evidence safaris* aim to bring the participants' individual knowledge base and expertise into the shared space of a policy project in order to craft flat hierarchies amongst workshop participants.

During an '*evidence safari*' participants are asked to go through the room reading and commenting in writing, from their own expertise and knowledge on the policy topic, on bits of evidence presented on A5-sized cards. These so-called '*evidence cards*' present condensed bits of information on the topic of the policy challenge (Figure 5.4).



Figure 5.4 Examples of evidence cards.
 The cards contain brief descriptions of knowledge relating to the policy challenge central to the policy design process. Copyright: Policy Lab.

The cards aim to provide an overview of, as SPD1 describes, “all the data, evidence, and knowledge surrounding a policy issue.” In the collection of cards, Policy Lab brings together types of policy evidence that are commonly used in EBPM – e.g., statistics on socio-economic trends and examples of policies in other countries – with more human-centred and Design-oriented knowledge such as technology developments related to the topic and qualitative data resulting from user research conducted by the ethnographers at Policy Lab.

Printed on A5-sized paper, the cards are spread across the room in which the activity takes place. This way, the evidence is positioned in the shared space providing all policymakers and stakeholders participating in the workshop with the same knowledge base. Participants are then given the task of explore the evidence presented throughout the room and reflect on the evidence from their own perspective – meaning their own knowledge and expertise on the policy topic. As they are given post-its at the start of the

exercise, participants can add bits of information to the evidence, sharing their view or raising questions in response to specific cards.

During the exploration of the *evidence cards*, which is called the *evidence safari*, discussions around evidence took place in a de-centralised way and disconnects evidence from specific individuals in the room. Shifting the power balance amongst participants by moving away from a focus on sharing knowledge in centralised manner, it allowed to bring to the centre of the exercise the reflection on the evidence. To me, this seems to be a consequence of taking a Design approach: Information is only of value when it can be used to create something new. Without further action, information remains information. To Design with information, it needs to be reflected upon to spark ideas.

There was a noticeable silence during the *evidence safari*. When participants were reading the evidence cards, they expressed their perspectives by writing their response on a post-it and attaching this to the evidence card. Given LPL's comment about policymakers' tendency to 'boast' about their knowledge of a policy issue, the silence during the evidence safari seemed metaphorical. This as participants' reflection on knowledge appeared to stimulate them to 'listen' to other's understanding of the policy issue before sharing their own knowledge and expertise.

As such, the *evidence safari* appeared to motivate participants to correlate each other's knowledge to build on it and develop a shared understanding of the policy challenge. As the activity asked participants to be reflective rather than decisive when exploring the evidence, this seems to have created the opportunity to bring in additional types of knowledge: Design-oriented and human-centred forms of knowledge were brought into the evidence safari.

Through analysing my observations and experiences of working with Policy Lab's methods it became clear that much time is spent identifying the perspectives of policymakers and other workshop participants. Exercises such as *hopes and fears*, the adapted version of *personas*, and *evidence safaris* reveal that these perspectives are amongst others influenced by people's priorities, beliefs, biases, assumptions, knowledge and expertise. Policy designers appear to leverage the act of reflection in

order to make participants aware of their own perspectives and make these explicit to others in order to understand how perspectives may differ across participants. Overall, the solution-agnostic exercises appear to be designed to prioritise the sharing of knowledge, perspectives and understandings of the policy challenge through which policy designers are able to craft flat hierarchies amongst those involved in the policy project.

After focusing on developing a shared understanding of the policy challenge, Policy Lab aims to move into the development of initial concepts that may be prototyped by policy designers and subsequently evaluated by policymakers. In this phase of Policy Lab's process too, there is an important role for reflection in the methods that policy designers apply to enable policymakers to develop a Design-oriented approach to policy design.

5.4.2 Evaluating prototypes to reflect on policy ideas

In this Section, I go into the reflections of SPD1, SPD2 and LPL on past experiences of introducing prototyping practices to a policy design process. When aiming to integrate prototyping methods into existing policymaking processes, it becomes clear that the policy designers at Policy Lab face several challenges. There appears to be a particular challenge for Policy Lab to respond to the limited knowledge of policymakers on prototyping in order to enable them to evaluate prototypes as a way to reflect on the quality of a policy idea.

SPD1 argues that prototyping allows policymakers to “*explor[e] the experience*” of policy ideas. Reflecting on a poster campaign and wireframes for an online service designed for a project on “*electoral engagement*”, SPD1 described how testing these prototypes allowed them to generate feedback on the policy ideas:

We are testing four or five intervention ideas with a number of people, that came up almost instinctively out of lots of conversations that we had with a group of stakeholders. Now, we are going to show it to the people who are actually going to be using and interacting with any of those interventions. And quite quickly we are finding that particular campaign messages are wrong, [and/or] it might be that some certain service ideas should be in a completely different place. (SPD1)

According to SPD1, taking such a prototyping approach is likely to be in contrast with current policy design processes:

I think, traditional policymaking would be [...] where policy makers sit down and write a really detailed but also really simplified statement of intent. Three options that you might want to pursue given [a] particular challenge or problem. Then a guidance of what would be recommended. [...] The minister would basically pick an option and then run with it. [...] There is no exploration of how that service might actually be delivered prior to the statement being written and then suggested and then accepted. (SPD1)

The assumption is that by allowing people to interact with a concretised form of the policy idea enables Policy Lab to bring otherwise abstract policy ideas into the context of use and to gather feedback from citizens. Through presenting the policy prototype and gathered feedback to policymakers, Policy Lab aims to elicit reflection on the quality of the policy idea. According to SPD2 it is particularly important to frame this input for reflection clearly, as she emphasises that the notion of prototyping is not yet well understood by policymakers: *“There is something about not underestimating the low-level knowledge [of policymakers] around some of this stuff”* (SPD2). She shares about a ‘phone call she had with policymakers just before the interview:

Talking about the concept of prototyping to check in with [them, I asked]: “Do you know what this [prototyping] means?” And they were like: “No, we literally haven’t heard of this. (SPD2)

This tension between the approaches taken by Policy Lab and policy makers highlights the gap between the two practices. According to SPD2, this does influence how policymakers understand the potential role of prototyping in a policy design process. Given that it is unlikely for policymakers to become skilled in the Design practices of prototyping, prototyping is likely to remain an expert skillset specific to policy designers. As such, policy designers need to find ways of communicating the role of prototypes without these skills. SPD2 reflects: *“We need to have a framework in place for when we communicate our work to clients we say: “right now, this is what you are receiving.”* (SPD1) Several reflections in the interviews made clear what are important aspects of prototyping.

This framework should make clear, SPD1 believes, that a policy prototype is *“something that can be pulled apart, explored and then re-evaluated”* to reflect on its quality. Rather than something that does not require further prototyping, testing and evaluation. What

SPD1 seems to argue is that a prototype, when communicated to policymakers, should be clearly unfinished and part of an incomplete process. This highlights the paradox of prototypes: As Kimbell and Bailey state, prototypes are *“on the one hand original, provisional and anticipatory, but at the same time aspir[e] to [be] a replicable ideal”* (Kimbell and Bailey, 2017, p217/218).

When it remains unclear to policymakers that prototyping should be understood as a process that allows policy teams to reflect on the quality of the policy idea, they may be seen as finalised recommendations that do not need further reflection. This may be particularly relevant when prototypes are created in media uncommon in policy design or outside the skillset of the policymaker. SPD2 reflected on a project during her previous role in which the policy team that she worked with struggled to understand that prototypes are visual manifestations of ideas that will require further refinement: *“The [prototypes] look[ed] quite polished because they are produced by designers. They seem much more thought through than they are. [...] They are just like a picture. That it is all they are.”* (SPD2)

The interviews with Policy Lab’s policy designers make clear they experience barriers to showing the potential of prototyping to elicit reflection on the quality of policy ideas. According to SPD1 whilst Policy Lab’s designers *“talk a lot about an iterative approach in government policy and Design”* they *“often don’t use iteration very frequently in projects.”* (SPD1) I understand iterations to be a key aspect to Design. Consequently, hearing that policy designers struggle to bring it into their Design approach to policymaking, suggests they have few chances to show policymakers how prototypes trigger reflection. From this perspective, it may be difficult to convince policymakers of the value of prototyping as a way to reflect on policy ideas in order to develop them further.

Overall, the two senior policy designers recognised that a lack of knowledge about prototyping amongst policymakers and the complexities existing in policy design processes combine to present barriers in making prototyping part of the policy design process. As they reflected on how policymakers may be able to move forward with prototypes produced by Policy Lab, it appears to be essential to frame them in such ways that are familiar and relevant to policymakers. The interviews made clear,

furthermore, that the use of prototyping as a generic term in Policy Lab may undersell the biggest value of the practice: Prototypes function as a manifestation of a policy idea to trigger reflection on and questioning of its quality. Prototyping is a process rather than an outcome, as it creates unfinished and imperfect manifestations of policy ideas.

In Sections 5.4.1 and 5.4.2, I focused on Policy Lab's approaches to introducing Design-oriented methods to policymaking practices. I explained that the methods introduced by policy designers implicitly focus on bringing reflection into the process of policy design. Whilst this makes clear that Policy Lab operates as an expert for government in Design-oriented approaches to policy, it does not show whether Policy Lab addresses criticism from scholars and commentators (as discussed in Section 2.2.2.1 and 2.3.2.2) about the alleged lack of understanding amongst designers regarding policymakers' practices and the constraints government structures place on their work. In Section 5.4.3 I therefore focus on work within Policy Lab that focuses explicitly on understanding the policymakers' experiences of policy design processes in UK Government.

5.4.3 Reflecting on policymakers' experiences to open up debate around policy design processes

In this Section, I discuss Policy Lab's approach to researching policymakers' experiences. As part of a collaboration with three stakeholder organisations – coming from government and charities – Policy Lab worked on a project exploring how to better engage young people in government consultation processes. Through the observations that I made as I supported JPD1 in this project as *policy designer*, it became clear that the nature of the project had presented an opportunity for policy designers to better understand the policy design practice of government consultation. Unlike most projects that Policy Lab collaborates on with policy teams and stakeholders, the workshops taking place during this project were conducted with a group of young people. The user research studied policymakers' experiences, rather than experiences of a citizen target group. Also, the usual video ethnography was replaced by a series of semi-structured interviews with policymakers. According to SPD1, through the interviews Policy Lab aimed “to find out how [Policy Lab] can prepare policymakers to involve citizens and, especially, young people.” (SPD1)

The interview tool was based on Policy Lab's "*desk-based [...] understanding of consultation processes*" (JPD1) and consisted of a set of octagonal tiles marking different milestones, stages and steps of government consultation. Each of the elements in the tool was designed to trigger reflection on the policymaker's individual experience of going through this policy design practice. (See Figure 5.5 for a photo of the toolset and details on how it was used during the interviews.)

This project had been described by SPD1 as an "*odd one*" compared to Policy Lab's 'normal' projects in which policymakers participate in the workshops and a citizen target group such as young people is the focus of the user research. Given criticisms in literature on the lack of understanding amongst designers of policymaking practices (see Chapter 2 for more detail on this criticism), it was valuable to observe the effort taken by policy designers to understand policymakers' experiences of an existing policy practice. In my experiences at Policy Lab, policy designers otherwise focused on introducing policymakers to new practices positioned within the Design-oriented double diamond framework (as introduced in Section 5.1.1) without acknowledging the value of existing policy design practices. Rather than opening up a discussion on how to progress policy design practices through the introduction of Design-oriented methods, in this process, the conversational space was created through researching existing policy practices.

As I supported the project by conducting the interview analysis, SPD1 advised me on how to approach the policymakers' accounts: "*You should not focus on the best practice insights, but their perspective on practice in reality.*" (SPD1) SPD1's comment was particularly interesting as I had noticed that Policy Lab referred to Design-oriented methods to contribute to *best* and *next* practice in policymaking. Instead of gaining an understanding of the *ideal* process, the analysis was supposed to identify *actual* practice amongst policymakers when conducting a government consultation. Being asked to take this focus within the analysis showed me Policy Lab's interest in placing policymakers in the role of experience expert, and as such, giving credit to existing practices to which Design methods may contribute rather than aiming to overwrite them.

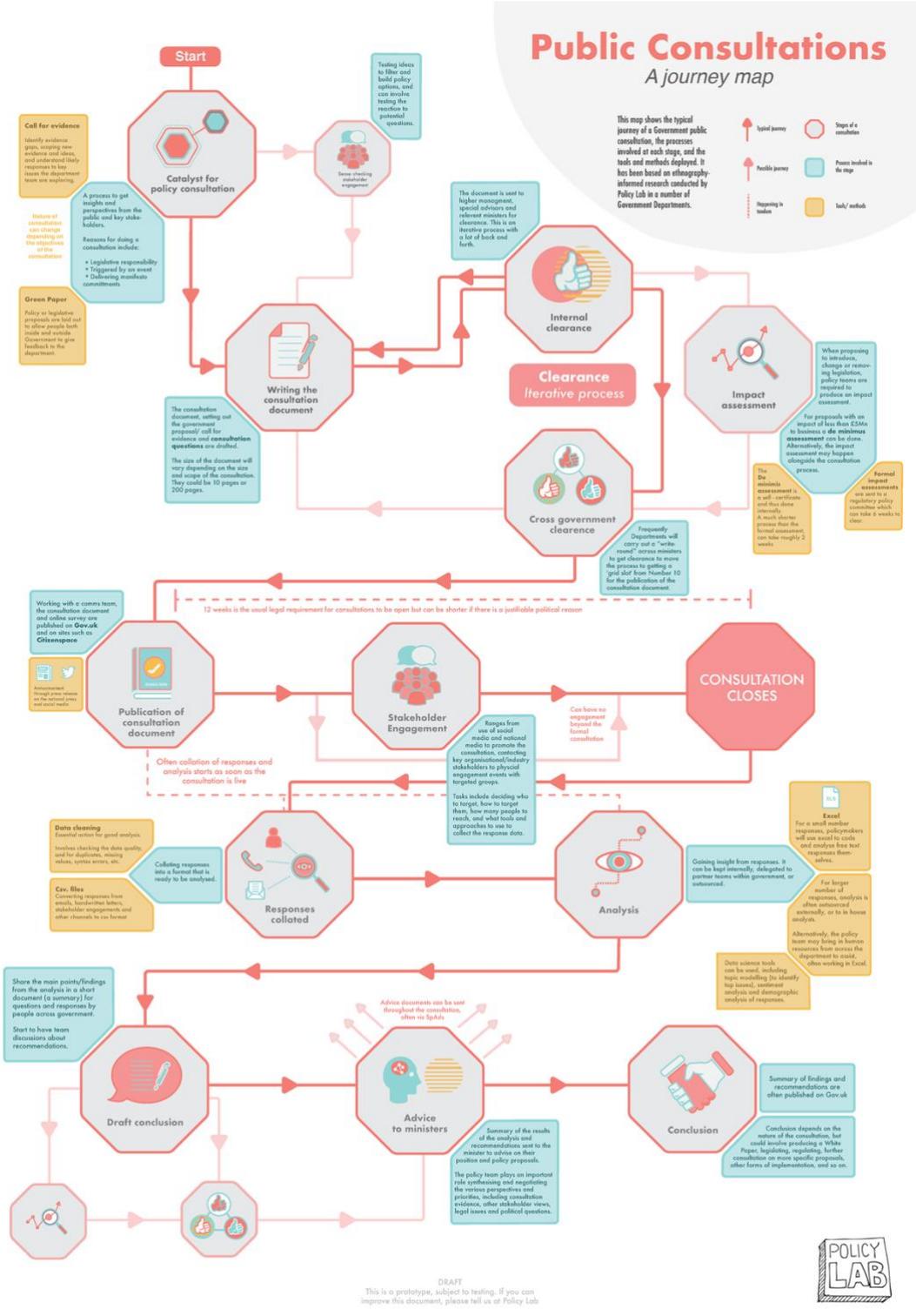


Figure 5.6 Visual overview by Policy Lab of government consultation processes. The journey of conducting government consultation in the UK, visualised by Policy Lab. Informed by policymakers' reflections on their experience of this policy design practice. The mapping highlights the different phases and milestones annotated with the constraints, tensions, and opportunities to overcome challenges during the process. Copyright visual: Policy Lab (Bennett and Cutler, 2019)

5.4.3.1 *Designing visualisations to open up a discussion around policy design practices*

Aside from analysing the interviews to inform a sentiment mapping for the co-creation workshop with young people, the analysis of the interview data was used to design a poster visualising the consultation process (see Figure 5.6).

The research into policy design practices had been strategically woven into the same process as the project's specific aim on how policymakers could engage with young people during a government consultation. In doing so, as part of commissioned work to address a specific 'how to' policy challenge (see Section 2.2.1.2 on the issue that designers are likely to work on policy challenge that have been narrowed down to specific 'how to'-questions), Policy Lab developed a resource that is of use outside the project's specific context. The infographic that was informed by the research into policymakers' experiences is one of a growing set of materials developed by Policy Lab aiming to share their understanding of policy design practices in UK Government. I had noticed another of this type of resource designed by Policy Lab on the first day of my fieldwork: A poster of about 1m² visualising different 'styles of government action' hanging on the side of a meeting booth at Policy Lab (Figure 5.7).



Styles of government action*

	Early stage	Framing	Scaling	Developing
Government as a ... Collaborator Working with others to build evidence and develop ideas	Champion Build a case for change and retain alliances for action.	Convening power Draw together expertise from across system.	Connecting networks Encourage government, experts and citizens to co-create change.	Co-producing Co-deliver by steering different actors from across the system to deliver outcomes.
Steward Steering a sector through influence and information	Agenda setting Build awareness and confidence in new opportunities by providing thought leadership.	Strategy and skills planning Prepare for changing workforce demands and consequences of change.	Educating and informing Ensure regulation is sufficiently understood and citizens know what's available to them.	Giving a voice Creating platforms for citizens and stakeholders to protect vested rights and interests.
Customer Buying goods and commissioning services	Catalyst Review, identify and invest in key opportunities with strategic value.	Standard setting Develop standards for data collection and presentation.	User centred commissioner Understanding citizen needs and contracting services that deliver best impact.	Leverage buying power Utilise public procurement to encourage investment, innovation, and protect consumer rights.
Provider Designing, providing and modifying public services	Innovator Create test beds, sandboxes and trials in real world settings.	Service redesign Establish legitimacy for more human-centred services, harnessing political will for change.	Service provider Provide services directly or indirectly through funding and target setting.	Choice architect 'Nudging' behaviour so that the default is both attractive and easy.
Funder Stimulating or leading investment	Early adopter Invest in the exploration of new opportunities with strategic value.	Fiscal incentives Direct finance to stimulate new thinking that can drive future opportunities.	Grants and subsidies Incentivise behaviour change through grants or other incentives.	Platform provision Scale up proven ideas through existing infrastructure and public services.
Regulator Regulating a sector and coordinating enforcement	Encourage voluntary codes Self-regulation, without legislation, allowing for greater flexibility.	Governance Ensure regulation supports the conditions for change and delivers the policy intent.	Building a regulatory environment Ensure regulation enables the intended policy outcomes.	Compliance Support enforcement and harmonise regulatory compliance environment.
Legislator Making laws and amending legislation	Green papers Publish proposals for discussion with stakeholders and the public.	White papers & draft bills Publish proposals for consultation and pre-legislative scrutiny.	Primary and Secondary Legislation Support a bill through parliament and enact legislation.	Amend rules Statutory Instruments: rules, orders, created by delegated authorities (e.g. Secretary of State).

Work in progress (April 2019 version). Please provide feedback on this prototype.

* Examples of different formal and informal powers and levers for government policy-makers

Figure 5.7 The style of government action framework developed by Policy Lab. The table presents different levels of intervention government has to its available to achieve policy intent. Referred to as 'levers', the table lays out different roles government can assign to in its design of policy. Policy Lab regularly uses the poster when they move workshop participants into the ideation phase of a policy project. Copyright: Policy Lab (Siodmok, 2020b)

When asking SPD1 to reflect on the value of these posters for policymakers, it became clear that making these experience-based overviews publicly accessible allows policymakers to learn from the experience of others. According to SPD1, it is common "most policymakers conduct one full consultation in their civil service career." Most policymakers are therefore likely to seek advice on how to approach the process, but this may not mean that there are publicly accessible resources on the topic. In the context of government consultation, SPD1 was told, "there appears to be one guy who is considered the consultation guru, he is the go-to person when you need help with setting up and conducting a consultation." (SPD1)

By designing a public resource such as a poster, Policy Lab contributes to making the professional practice of policymaking more transparent, rather than leaving the

knowledge and experience of these processes reside within that of the individual. As such, posters may help to democratise knowledge on policy design practices as *“the material [Policy Lab] create[s] is not about dictatorial decision, it is about capturing knowledge that is useful at multiple times in different space.”* (SPD1)

The posters provide policymakers with a tool to use when in need of a clear overview of common practices or the possible policy actions in order to address their policy challenge. Frameworks informed by practice may furthermore help overcome some of the tensions that may exist between theoretical models and the experienced reality of policymakers. As they are developed from a bottom-up approach, these models are more likely to represent the diversity in approaches to a particular process. This may support policymakers in identifying the path that fits best with the specifics of the policy challenge they seek to address.

Overall, the posters function as a designer’s understanding of policy design practices. As such it creates a bridge between the two domains of Policy and Design, enabling both policymakers and designers to open up a debate around the strengths and weaknesses of these practices. This, in turn, may allow for reflection on how and where in these processes Design-oriented methods may be introduced to progress the practice.

5.5 Summary of findings

As participant-observer, I set out to gain an understanding of the professional practices of policy designers working at UK Policy Lab. Focusing in particular on their approaches to adapting the skills, methods and knowledge of Design to the specifics of policy design practices, I found that their Design-oriented methods aim to contribute towards the act of reflection on policymakers’ practices.

In this Section of the Chapter, I summarise these findings and, before moving into the Conclusion section (Section 5.6) I discuss an overall insight gained through this Study.

5.5.1 Facilitating reflective thinking to craft flat hierarchies

Early on in the projects, Policy Lab facilitated workshops that take a solution-agnostic approach. Rather than supporting the participating policymakers and stakeholders in

finding a 'solution' to the policy 'problem', policy designers focus on highlighting differences in participants' perspectives on the policy challenge and how to address it. The methods used help participants to better understand the policy challenge whilst simultaneously revealing that one's understanding of and perspective on the policy challenge is informed by a range of factors. Encouraging workshop participants to reflect in a shared space on aspects such as their priorities, beliefs, biases, assumptions, knowledge and expertise with regards to the policy allows Policy Lab to make the differences amongst participants clear and highlight these as complexities within a policy challenge. Through this process of reflection, the Design-oriented methods from the OPMT enable Policy Lab to craft flat hierarchies amongst the participants that reveal the impact of the perspective-based differences and complexities of a policy challenge.

5.5.2 Evaluating prototypes to reflect on policy ideas

As a central practice in Design, this Study explored how Policy Lab may use prototyping in policy design processes. Through interviews with two senior policy designers, it became clear that prototyping had been used to explore experience and perception. When aiming to explore experience, prototypes appear to be external facing asking for feedback on policy ideas from affected citizens.

Whilst prototypes can make policy ideas concrete in order to evaluate them, the senior policy designers from Policy Lab shared how they simultaneously experience challenges in integrating these with policymaker's practices. From the interviews it became clear that a particular challenge for Policy Lab is the need to respond to the limited knowledge of policymakers on prototyping. Consequently, I found it is important for Policy Lab to communicate clearly to the policy team the key aspects to prototyping, and the role of prototypes as they are handed over to the policy team at the end of a collaboration. Furthermore, although the notion of prototypes may be understood well by policymakers this does not guarantee further development of the policy ideas. This as it is unlikely that prototyping practices are part of a policymaker's skillset.

5.5.3 Reflecting on policymakers' experiences to open up debate around policy design processes

The study showed how Policy Lab is conducting research into specific parts of policy practices which appear to allow for an in-depth understanding of opportunities and challenges for Design methods. It may be that basing the development of Design methods for policy on experiential research insights may lead to improvements of these methods to be adopted by policymakers.

As part of a project that explored how to engage young people in government consultation, Policy Lab conducted a series of semi-structured interviews with policymakers. Participating in the data collection and analysis of policymakers' accounts of their practices and experiences highlighted a particular value in developing shared information resources based on practice rather than theory. Furthermore, Policy Lab's design of a tool to create a conversational space appeared to be a valuable way to gain overview of a specific type of policy practice whilst simultaneously giving space to the personal experiences of the participants. The integration of user research targeting policymakers with project-based work allowed Policy Lab strategically to place this type of work within their business model. Placing policymakers in the role of experience expert, in particular, appeared to give credit to existing practices to which Design methods may contribute. This may be received by policymakers as a constructive way to support, expand or progress some of the practices rather than overwriting them.

Observing and participating across three strands of work taking place at Policy Lab, it became clear that policy designers mobilise different aspects of Design in their collaborations with policymakers. In the following, I discuss the findings of this Study and identify opportunity for further research.

Overall, the Study with Policy Lab made clear their use of reflective thinking practices in Design-oriented methods for policy design. I experienced how, in their work with policymakers, policy designers mobilised this in implicit and explicit ways. The tools and methods developed for the open policymaking toolkit (OPMT) enable policymakers to reflect on and reveal differences in perspectives amongst participants.

During policy projects in collaboration with policy teams, Policy Lab predominantly works from the double diamond framework to policy design.

In contrast, when researching policymaker's experiences of policy design practices, policy designers rely on an explicit use of reflection. Using Design-oriented methods to mobilise reflection enables Policy Lab to create a conversational space between Policy and Design understanding of policy design. The research projects result in resources that support both policymakers and policy designers to identify when and how Design-oriented methods may contribute to policy design practices.

5.6 Conclusion

This Study set out to better understand how Design methods of speculation, provocation, and co-production are used in central government. The Study showed that, four years after Kimbell's research into Policy Lab during a year-long academic fellowship, her findings and insights still ring true to my observations and experiences.

By choosing to look, specifically, at how Design methods may be positioned at the nexus of evidence and decision-making in policy design, I generated the additional insight into how Policy lab is taking a multifaceted approach to introducing Design as a reflective practice to policymaking.

A major focus of policy designers' work at Policy Lab focuses on eliciting a reflective mindset amongst policymakers. Through facilitation of project-based or training workshops, Design-oriented methods are introduced to policymakers to give space to their individual perspectives whilst simultaneously encouraging them to place decision-making and evidence practices in a shared conversational space.

Furthermore, prototyping practices appear to be used to gather responses to gained insights from individuals both internal and external to government. Prototypes, exploring experience, are used to bring user feedback into Policy Lab's projects with the policy team.

In addition to developing Design methods for policy processes, Policy Lab has developed several resources that inform about common practices of policymakers. As part of the project on how to engage young people in government consultation, Policy Lab

conducted a series of interviews with policymakers. Researching their practices, knowledge and experience of developing and conducting a government consultation provided Policy Lab with insights into how and where in these processes Design methods may contribute to existing practices. The use of a designed tool to guide these interviews appeared to be valuable in creating an overview of otherwise complex processes, eliciting reflection on different layers of these processes, whilst leaving room for interview participants to express their personal perspectives and opinions.

Whilst there is anecdotal evidence of how the Design-oriented approaches to policy design have impacted the practices of policymakers, as it appears, little is known about the extent of their impact in Government. For example, it remains unclear from the participant observation if deliverables from Policy Lab's collaboration with policy teams become part of later stages in policy design, and whether there is a wider adoption of tools and methods from the open policymaking toolkit outside of Policy Lab's use. This brings up questions of whether policymakers take ownership of the Design-oriented approaches to policy design and integrate them into their own practices. Thus far, the research focused on how policymakers might bring design research into their policy design practices and processes. To get a better understanding of the influence of Design in policy design, I conducted a third Study in collaboration with policymakers. This led to another shift in the conceptual focus towards understanding policymakers' perspectives on the impact of Design on policy design.

Chapter 6 Idea development in policy design processes

In this Chapter, I report on Study 3. This Study focuses on the period after which Policy Lab hands over their deliverables – generally a policy project report - to the policy team (indicating the end of the collaboration) through to the completion of the policy document by the policy team.

For Study 1, I set out to better understand the boundary practices between Design research and policymaking through talking to policy informers, asking them about their experience of making their knowledge fit for the purpose of policy informing. The research shifted conceptually for Study 2 as the insights from Study 1 informed the need to better understand the impact of Design on central government's policy design processes, and how Design knowledge might become integrated in policymakers' practices. Building on the insights from Study 1 and 2, and the conceptual shift that was made, in Study 3 I set out to better understand the perspective of policymakers themselves. Rather than gaining insight into the impact Design might have on policy design through researching the reflections and experiences of policy informers (Study 1) and policy designers (Study 2), I identified a need to research reflections and experiences of policymakers. The first two Studies, conceptually, investigated how Design can become part of policy design. Study 3, instead, aimed at better understanding whether policymakers might see policy design processes as processes of Design, and explore how their experiences of working with Design methods (through collaboration with Policy Lab) have impacted to their policy design practices.

In Section 6.1, I describe the focus and the design of this Study and how these were informed by the insights gained from Study 1 and 2. Section 6.2 details the approach of Study 3. In this Section, I explain my choice to use a graphic elicitation method to enable participants to reflect on their experience of policy design processes. I describe the interview structure step by step and simultaneously introduce the graphic elicitation

tool designed for the Study. This Study is analysed as outlined in Chapter 3. Here, I explain the specifics of the analysis of this Study.

Then, in section 6.4, I present the findings from Study 3. Section 6.4.1 reports on the synthesis practice of policy teams. I focus on how policymakers reflected on their practices in order to collect and make sense of evidence to determine the validity and feasibility of a policy idea. The participants' reflections made clear that their main task in policy design processes is to generate a detailed understanding of the anticipated impact of a policy idea from different perspectives. Key to this finding is their use of specialist advisors to gain access to these different perspectives. When reflecting on how their subsequent sense-making processes compare to those experienced in their collaboration with Policy Lab, it became clear that the reliance on outsourcing impact analysis influences how policy teams synthesise this evidence.

In Section 6.4.2, I discuss participants' reflections on their experiences of developing ideas for policy within government structures. To understand whether it is possible for policymakers to approach policy idea development as a Design process, I focused on unpicking their exploration and iteration processes. This, I understand, to be key to a Design process. The interviews made clear that practices of exploration and iteration are strongly influenced by the documentation and communication procedures prescribed by government. An important influence of these procedures is that approval to progress in the process needs to come from outside the core policy team. The approval processes require policymakers to articulate the details of a policy idea, which appears to be in contrast with the reflective approaches introduced by Policy Lab.

In Section 6.5 and 6.6, I bring together summaries of the findings of this Study and draw a conclusion of the insight gained through the Study and the opportunities for future research. This Study showed me that policy design processes are likely to be well-considered evaluations of policy ideas. Policy teams bring a range of specialist advice to develop a multifaceted understanding of a policy idea's impact. The structures provided by government force policy teams to unpick the details of their proposed policy idea. This presents a tension in policymakers' ability to develop policy ideas as if it was a process of Design. Opportunities for iteration and experimentation appear limited as

policy ideas need to be detailed from the start of the design process. Participants recognised this as an influence caused by the design of government bureaucracy. Looking more closely into participants' reflections on their learnings from collaborating with Policy Lab, it became clear that participants were likely to continue the reflective practices introduced to them through Policy Lab's Design-oriented methods. Based on their reflections, I argue that reflective thinking allowed policymakers to focus on the content of their process but that this is likely to be in tension with the apparent focus on moving the process forward facilitated by government.

6.1 Background

Through Study 1, I found that the knowledge and outcomes from Design challenge notions of evidence in EBPM. Participating policy informers highlighted the need and value of human-centred and future-oriented forms of knowledge but emphasised the challenges they face when aiming to translate this into evidence for policymakers and politicians use to inform their decision-making. Subsequently, I set out to better understand how methods, skills and approaches of Design are used within government and how these, in particular, aimed to challenge notions of evidence and decision-making in policy design.

Study 2 showed that whilst positioned to bring human-centred perspectives into the policy design process, the Design-oriented methods developed by Policy Lab have a strong focus on eliciting reflective thinking. Although Policy Lab did not appear to make this an explicit contribution of their work, this finding suggests there is a need for reflective practices in policy design.

In order to go into more depth, I conducted a third Study to bring these key findings from Study 1 and 2 together. As such, through Study 3, I aimed to better understand how policymakers experience the issues around notions of evidence and reflection. Focusing on how policymakers continued the policy design processes after a collaboration with Policy Lab, I set out to gain insight into how and if policymakers were using or introducing practices of Design in the process of developing their policy ideas. Study 1 and the literature review illustrated that the constraints of government strongly influence the ability of policy design to integrate Design methods (Clarke and Craft,

2019; Peters, 2020; Mortati, 2019). Though, as seen in Study 2, it remains unclear how these constraints influence policymakers' ability to integrate Design practices in their practice, I deemed it important to enable policymakers to reflect on how their processes were influenced by the constraints of government and other factors external to their core policy team.

As described in Section 5.4.3, Policy Lab uses tools to enable policymakers to reflect on their experiences of policy design processes. The participant observation showed that, mediated by visual materials, policymakers shared detailed and nuanced reflections of their practices. The tool enabled policymakers to construct an overview of a policy process, whilst they spoke with policymakers about the complexities of these practices. This approach to researching policymakers' practices appeared to be a valuable means to making the links between Policy and Design approaches explicit. Informed by this finding, I chose to design a similar tool to support policymakers to reflect on their practices using graphic elicitation.

6.2 Study 3 Approach

As discussed in Chapter 3, this doctoral research focuses on gathering experiential accounts from professionals working in policymaking. Whereas the first two Studies involved engagements with professionals who are external to the policy team, this Study focused on understanding the experiences of policy makers who collaborated with Policy Lab at the start of their project. Central to this third Study is the question:

How might policymakers understand policy design processes as processes of Design?

I set out to understand their use of Design-oriented methods for policy design, which they were introduced to through their work with Policy Lab. Whilst they therefore may be willing to continue using the outcomes of their work with Policy Lab, they simultaneously need to manage the constraints that are imposed through conventional practices of policy making in central government. Gathering their reflections on what influences evidence and decision-making practices in processes of developing policy

ideas²⁵, as such, may lead to insights into the ways Design methods may be introduced to overcome barriers caused by conventional policy practices.

As discussed in Chapter 2, Clarke and Craft (2019) indicated four key barriers that designers should overcome in order to influence policy design practices. Central to their argument is the understanding that policy design as a tradition within policy making dates back to the 1950s. Therefore, they argue, designers who aim to influence policy design should realise that current practices in policy result from a developing practice. The claim that design presents a 'wholesale alternative' to current policy practices may limit designers' ability to learn from policy practices and contribute to them. As such, there is an opportunity in this Study to reflect on current policy practices as if they are already design practices.

6.2.1 Study participants and recruitment

Study participants are positioned at the later stages of policy design. For the context of this Study, the end of this phase is indicated by the delivery of a policy document. By defining this phase with clear ramifications, the aim is to generate a space for discussion that is similar across the different interviews: from the moment Policy Lab hands over the deliverables to the policy team through to the moment where the policy team delivers the policy document. The policy team is responsible for the delivery of this document, and it is assumed that the policy team is therefore at the centre of evidence and decision-making practices in this phase of policy design. As such, policymakers are the participants central to this Study.

14 participants were recruited for this Study. Table 6.1 and Table 6.2 through to Table 6.4 provide details on each of the interviews and participants. (More detail on the participants can be found in Appendix J. The recruitment email can be found in Appendix H).

²⁵ This idea is described in the policy document that the policy team works towards as the end goal before moving forward into to the policy implementation phase.

Interview number	Number of Participants	Participant Alias	Interview guided by mapping activity	Recruited	Knowledge of Policy Lab through
01	1	P01	Yes	Direct	Placement
02	1	P02	Yes	Direct	Project collaboration
03	1	P03	Yes	Direct	Project collaboration
04	2	P04a, P04b	Yes	Direct	Project collaboration
05	4	P05a-S, P05b-S, P05c-S, P05d-S	No	4 Snowball (via P04a, P04b)	N/A ²⁶
06	2	P06a, P06b	Yes	1 Direct 1 Snowball	Project collaboration ²⁷
07	2	P07a, P07b	Yes	Direct	Placement
08	1	P08-S	No	Direct	N/A ²⁸

Table 6.1 Overview of interview and participant meta-data for Study 3

²⁶ Interview 05 was conducted with participants who did not work with Policy Lab but worked on developing a Design-oriented method for a government department.

²⁷ P06b did not collaborate with Policy Lab directly but joined a policy project that started with a collaboration between the policy team and Policy Lab.

²⁸ Interview 08 was conducted with a senior civil servant (P08-S) who in his strategic position has introduced Design-oriented methods to government departments.

Partici pants	Role / Department	Project worked on with Policy Lab	Design Experience
P01	Policy Advisor / Department for Culture Media and Sport	Project focused on multistakeholder collaboration with young people to design platform to engage in government consultation.	P01 has experience doing co-design in youth work. She collaborated with Policy Lab on a project within the Digital Youth Engagement space, were learned about tools for co-design in policy context.
P02	Policy Advisor / Cabinet Office	Is unable to share details of the project.	Is interested in exploring 'Design' further since collaboration with Policy Lab. Signed up for a Design course. In his experience Design allows a policy team to be more involved in the process. Experienced user testing and video ethnography valuable experiences in contrast to outsourcing the analysis to experts.
P03	Policy Advisor / Department for Education	Project aimed at developing policy to increase diversity in UK education staff.	Is <i>"heavily bought into the policy lab model."</i> Realises the model <i>"is not perfect and very difficult way of working in a particular way."</i> Feels that it needs <i>"a behavioural change and a cultural change"</i> within government. Sees the <i>"fundamental idea"</i> of Policy Lab that everything should have some level of user-involvement.

Table 6.2 Study 3 participant table.

P04a	Retired Policy Advisor / HMRC	The project with Policy Lab focused on improving a letter send to young people who are coming of age. This	P04a has experienced the shift of HMRC to generally work on a basis of <i>"upfront change description"</i> towards agile methodology.
P04b	Policy Advisor / HMRC	project was conducted several years back, in the early years of Policy Lab's existence.	P04b too has experienced the shift towards agile methodology and sees an increasing importance laid on stopping processes <i>"to test, even externally, to see if something works."</i>
P05a-S	Design Lead / HMRC	This team is developing a 'design methodology' to be implemented across	User Interface design background, digital standards, uses accessibility and inclusion.
P05b-S	Design Lead / HMRC	HRMC. The methodology responds	Had a background in 'use stories' many years ago.
P05c-S	Senior Design Analyst / HMRC	to the <i>"disconnect between policy, design, and delivery."</i> Aims to	Background in <i>lean</i> methodology.
P05d-S	Design Analyst / HMRC	inform the way HMRC will design and deliver change going forward.	Process ops background within HRMC, has degree in Information and Communication Sciences.
P06a	Policy Advisor / Department for Transport	Project with Policy Lab was part of a large of work on the future of maritime policy. Seven themes of work were identified, with the team collaborating with Policy Lab around the theme of 'autonomy'.	Worked with Policy Lab on the project. As this was his first project as civil servant, his experience of policymaking is that of the Policy Lab approach. P06a left the team shortly after the process had moved into the development phase.

Table 6.3 Study 3 participant table. (Continued)

P06b	Policy Advisor / Department for Transport		P06b joined the policy team half-way through the project, taking over P06a's position. She has not worked with Policy Lab or Design methods before.
P07a	Policy Advisor / Cabinet Office	The interview focused on populating the timeline with what a 'classic' policy process might look like, whilst reflecting on the potential differences	P07a works at Policy Lab on secondment. Did a series of internships in social entities which worked with design thinking and anthropology. Got in touch with Policy Lab when she heard about their secondment opportunity.
P07b	Policy Advisor / Cabinet Office	with Policy Lab's Design-oriented approach.	Joined Policy Lab ab about 1 month ago (at the time of the interview) on secondment. Knew about Policy Lab through her participation in a workshop with Department for International Transport.
P08-S	Senior Civil Servant / Department for Education	The interview focused on the impact of the 'service manual' and 'service standards' introduction to the Department for Education, the use and challenges of user research and Design in governmental decision-making.	Started at DfE several years back, initially to lead work around teacher recruitment and retaining. In this area he tried to introduce more Design- and user-led approaches to the department. He led the transformation and digital teams in the DfE, which did not exist as a central capability before that.

Table 6.4 Study 3 participant table. (Continued)

6.2.1.1 **Consent**

I recruited participants with support from Policy Lab staff, as the recruitment criteria included those who had previously worked with Policy Lab. Policy Lab staff members provided contact details of policymakers, who I emailed with the Deputy Director of Policy Lab copied in. In this email, I explained why Policy Lab had provided their details in the context of this Study. It included a description of what would be focused on in a 45-minute interview (see Appendix I) to find out whether the contacted individual was interested in taking part in the study. When potential participants responded with an expression of interest, I sent them the consent form and information sheet for the study, to be read, completed and signed before conducting the interview (see Appendix G). Prior to the interview, participants were asked whether they wanted to go through the information sheet and/or had any particular questions regarding the study. Once the consent form was signed, the audio recording was started.

6.2.2 **Research method**

Through my observations and informal discussions with policy designers in Study 2 it became clear that policymakers and designers, most likely, do not share the same professional language to describe their process. Policy Lab's design and use of communication tools to bridge this 'language barrier' to discussing policy practice appeared to create a conversational space in which both designers and policymakers could participate.

The aim of this Study was to gain insight into the ways in which design research methods may contribute to evidence and decision-making practices in policy design. For this, I use *graphic elicitation* as a method for eliciting reflection on participants' professional experiences, informed by Policy Lab's approach to researching policy practices (Section 5.4.3).

Through the introduction of a visual tool to give structure to an interview, I enabled participants to deepen their reflections and unpick complexities of their experiences. Guiding participants in creating a visual overview of the processes on which they reflect was intended to enable them to refer back to specific aspects of their policy making activities and the various stages and decisions made through these. Furthermore, using

visualisation as an interview technique gives participants an additional means to communicate key elements, and to indicate their importance in relation to other aspects of their reflection. Furthermore, through developing a visual representation with the policy maker participants, it provided me with the opportunity to ask for more detail when particular elements remain under addressed.

In the following section, I will provide detail on the graphic elicitation tool to support the participants of the study in reflecting on their experiences of evidence and decision-making practices in policy design. In the following Sections, I will also outline the structure of interviews conducted with those participants in strategic roles, where the elicitation method was not used.

6.3 Data collection and analysis

For this Study, a graphic elicitation technique was developed that made use of a visual timeline template and a set of visual metaphor stickers. These materials were used as an *enabling technique* (Will, Eadie, and MacAskill, 1996) during the interviews with policy makers to – through the use of visual elements – indirectly ask participants to reflect on their policy design process as if it was a process of Design. (The understanding of the Design process, which relies on my understanding of the Design process, I detail in Section 6.3.1.2.)

During the interviews, two forms of data were collected. The interviews were audio-recorded after consent had been provided by the participant (see section 6.2.1.1). At the end of the interview, a photo was taken of the populated timeline for archiving and analysis. In the following sections, I will detail the structure of the sessions conducted with policy makers. (Examples of coding and draft themes part of the thematic analysis can be found in Appendix O.)

6.3.1 Interview structure using graphic elicitation

In this section, the design of the session will be detailed.

6.3.1.1 *The start of the interview*

At the start of the interview, participants were asked to introduce themselves – where they work, their professional background, and how long they have worked for the civil service. Subsequently, they were asked to describe the project they worked on during which they collaborated with Policy Lab - its topic, why they collaborated with Policy Lab, key learning points and the deliverables of the project. This introduction also aimed at helping participants to recall experiences of this project which could then be referred back to later on in the interview.

6.3.1.2 *Introduction of the session materials*

I used graphic elicitation as the enabling technique to support participants in their reflections on policy design processes as if they were a Design process. Given that the participants had collaborated with Policy Lab, it was assumed that the participants had some experience of using this type of visual exercise as part of professional practice. The overall objective of the exercise was to populate a timeline, starting from the moment that Policy Lab completed their handover through to the moment that the policy team delivered the policy document (Figure 6.1).

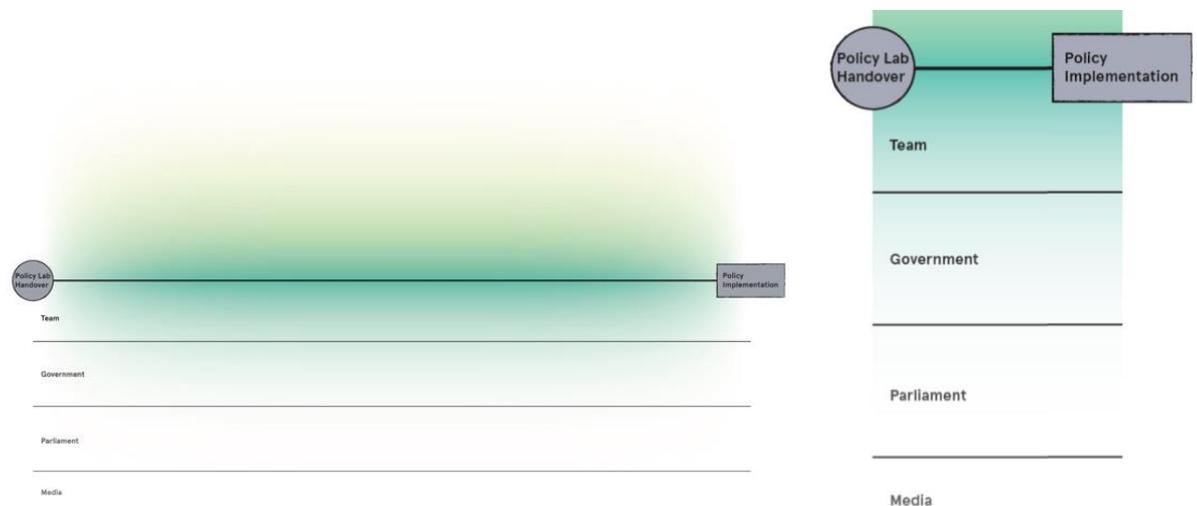


Figure 6.1 Design of timeline template for Study 3. (Zoomed in version on the right.) The template for the graphic elicitation interview with policymakers, left empty for populating by the participant.

As part of the material setup for this Study, I designed a range of stickers to populate the timeline and to support and elicit reflection on the nature of the steps in the process (Figure 6.2). Each sticker had a term or concept attached to it, which I introduced to the

participants as I explained the materials at the start of the interview. The participants were invited to use these stickers to indicate specific points on the timeline and were told that they were free to use the stickers in any way appropriate for them. This meant that, although I had assigned a meaning to the visual metaphors, the participants were allowed to change their meaning if they struggled to use them with their assigned meaning. This is as I intended the materials to enable participants to reflect on their process. As such, the participants were free to use the materials in ways that worked best for them.

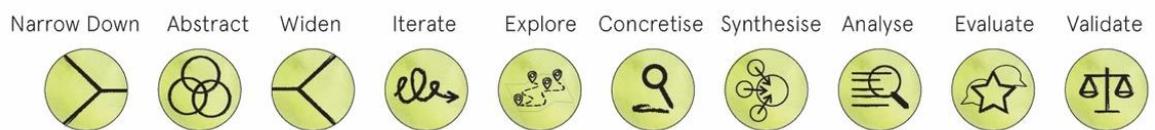


Figure 6.2 The visual metaphors of process steps stickers.

The terms were derived from the ‘Reflective Transformative Design Process’ model – or RTDP in short (Overbeeke and Hummels, 2012; Hummels and Frens, 2009). The RTDP model identifies processes common in Design: abstract, iterate, explore, concretise, synthesise, analyse, evaluate and validate. This model was central to my Design training at university and placed emphasis on the processes of decision-making in Design practices and the role of reflection as a process that informs designer’s decision-making (which I discussed in more detail in Section 1.2 and 1.3). As I set out in this Study to invite policymakers to reflect on their policy design processes, the processes identified in the RTDP provided a set of terms that could support policymakers in their reflective thinking. This is as I expected these terms to create a conversational space that bridged my Design understanding and description of a policy design process with that of the participating policymakers.

Informed by the interviews with policy informers (Chapter 4) and the policy designers (Chapter 5), I anticipated a need to bridge a difference in understanding and description of policy design processes between me and the participants. I therefore chose - rather than using the verbal terminology as can be found in the RTDP - to design visual metaphors for each of the terms. Informed by my understanding of each of the terms (Table 6.2), I designed icons that captured the meaning of the term.

	Meaning
<i>Iterate</i>	Going through multiple cycles of a Design process within one strand of work to, for example, refine or improve a design.
<i>Explore</i>	A divergent process in which different, for example, ideas or notions are investigated.
<i>Concretise</i>	A convergent process in which abstract ideas are made real, tangible, or particular.
<i>Synthesise</i>	A process in which multiple forms of input, e.g., multiple sources of evidence, are made sense of as one whole in order to gain insight.
<i>Analyse</i>	A detailed examination of, e.g., a design.
<i>Evaluate</i>	A process of assessment.
<i>Validate</i>	A process of testing.

Table 6.5 My definition for the processes part of the Reflective Transformative Design Process.

In addition, two more stickers were introduced to the series translated from the double diamond model used by Policy Lab. The ‘widen’ and ‘narrow down’ metaphors represent Policy Lab’s design approach to policy making. As such, these indicate an essential aspect to their understanding of the design process: It is a combination of divergent and convergent thinking. Instead of talking about the Double Diamond model or relying on its visual representation in the materials designed for this Study, the choice was made to refrain from using technical terms like ‘double diamond’, ‘convergent’ or ‘divergent’. It was felt that this may lead interviewees to copy how they had been introduced by Policy Lab. Instead, the method allowed participants to rely on their own understanding of policy design as a Design process, in order to find out whether this includes a widening and narrowing down of the process.

Informed by my choice of graphic elicitation as the research method for this interview study, I chose to use visual metaphors as non-verbal representations of each of the processes rather than word-based stickers. Second, in order to change the perspective from which policymakers may normally reflect on their processes, through the use of visual metaphor I aimed to move participants away from reflecting on the main ‘material’ in their process: the written policy document.

Additionally, before starting the interview, in order to move participants away from describing external influences on the development of their policy idea, I highlighted that the timeline mapping was split in two different sections: The bottom half of the timeline and the top half. The top half was populated first by the participant, to focus their reflections of the different aspects and phases of their idea development process. After that, the participant was invited to populate the bottom half, which focused on the external influences during the process. It was explained to the participant at the start of the interview, that thinking around idea development was intentionally separated from thinking about external influences. Explained was, that this decision was made to encourage thinking about the idea development first, without focusing on the complexities that were introduced to the process due to external influences. After populating the top half, participants were invited to reflect on the external influences on the process and draw connections between the two halves to understand how external influences had impacted the aspects and phases of the idea development.

The interview session focusing on the mapping of participants' experiences of policy design after collaboration with Policy Lab existed of four steps.

Step 1: Indicating the 'now' and key moments on the timeline axis

To start, the participant was asked to indicate the current point in time at which the project exists (Figure 6.3), to allow for distinguishing between reflections based on what had happened in the process and what they expected to happen (which may be based on previous experiences of going through policy design processes).

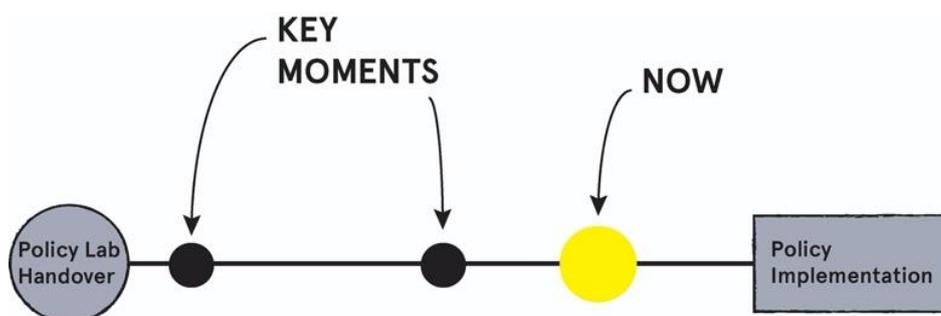


Figure 6.3 Visualising use of timeline in template for Study 3 interviews. Example of indicating the 'now' (yellow dot) and key moments (black dots) in their process.

Step 2: Populating top half of the timeline with visual metaphors

Participants were invited to further populate the top half of the timeline with stickers and annotations (Figure 6.4). During this process, they were asked to think aloud, which allowed them to ask questions to deepen their reflections on the process; and this also helped me capture their articulations of their thought process for later analysis.

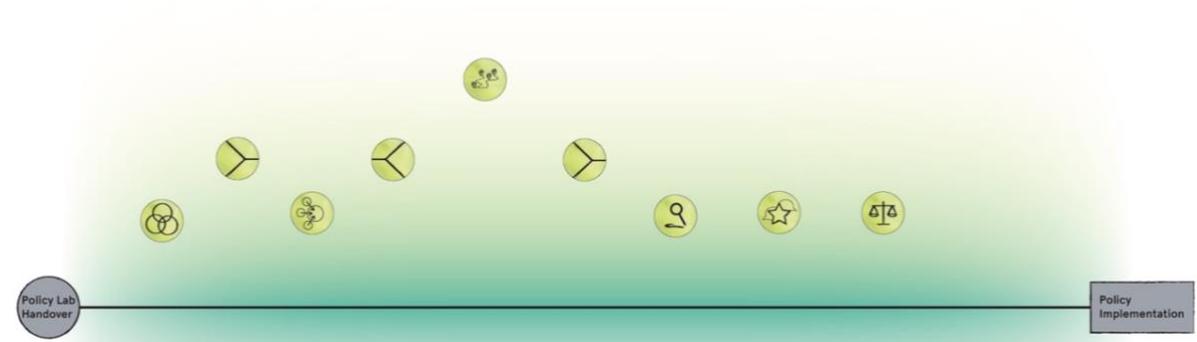


Figure 6.4 Visualising use of visual metaphors on timeline template. Example of using the visual metaphors to populate the top half of the timeline to indicate specific types of decisions and activities that were part of their policy design process. The placement of the stickers higher or lower was encouraged to link these to how narrow or wide the focus of the process was. (See Step 4 for more details on this.)

At this point in the exercise, participants were challenged not to talk about any of the external factors that may have influenced decision-making or evidence practices, but to leave these for later on in the interview. I explained that by ‘external factor’ I meant any decisions and any other factors that impacted the process coming from outside the core policy team, allowing them to focus on the processes internal to the policy team during the first half of the interview. By asking participants to do this, they were encouraged to think about the development of the policy intervention (and with that, the development of the policy document) in itself, leaving out what external factors might have influenced the progression of the process.

As discussed in Chapter 2, Bailey and Lloyd (2016a) observed in their interview study that the participating policymakers made strong statements about the influence of hierarchy (e.g., ‘grades’) and individual intelligence (as a way to access evidence) in policymaking practices. Informed by this finding, the decision was made to focus initially on the development of the policy idea (which is central to a policy document towards

which a policy team is working) separate from the influences such as hierarchical power and intelligence. The assumption was made that these influences are external from the policy team – in other words, I focused on the actions of the policymakers that are part of the core policy team. Whilst decisions and evidence may come from outside the policy team, they could be reflected upon as part of the idea development process, before detailing which individuals influenced their process at specific points. In doing so, participants are first encouraged to reflect on the process of idea development before reflecting on how these fitted within common or expected government practices.

Step 3: Populating the bottom half of the timeline with different types of influencers

Once the top half of the timeline was completed, each participant was asked to reflect on the moments that they had indicated along the timeline and to describe what external factors were involved at each of those specific moments in the process.

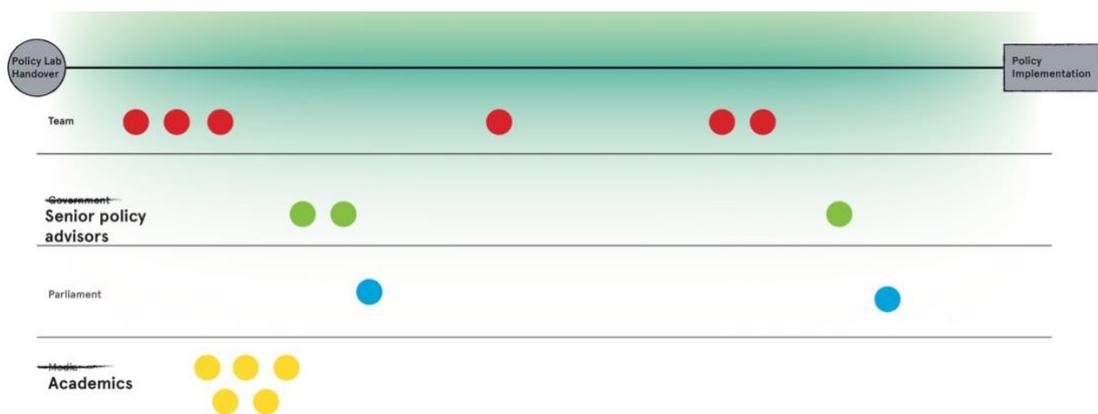


Figure 6.5 Visualising use of bottom half on timeline template for Study 3 interviews. Example of a populated bottom half of the timeline. Dots indicate different groups of individuals involved in the policy design process at various points of the timeline. As an example, the external factors ‘government’ and ‘media’ have been crossed and replaced with ‘senior Policy Advisors’ and ‘academics’.

On the worksheet (Figure 6.5), four ‘external factors’ were pre-emptively indicated: *team, government, parliament, media*. (Government referred to the civil servants involved external to the policy team. Parliament referred to the elected involved, such as members of parliament (MPs) and ministers.) These four groups were determined based on experiences gained working at UK Policy Lab, as these groups were mentioned regularly in project meetings. (E.g., the policy team regularly switched members, which could be highlighted by putting a sticker down. Similarly, a media influence such as a

new article in a national newspaper could be indicated with a sticker.) These groups were noted down to encourage participants to reflect whether these groups were relevant to their process. They were free to change the groups in order to match it to the specifics of their project.

In populating the bottom half of the timeline, participants were asked, if relevant to the specific influence to think about roughly how many people from each of the layers were influencing. (E.g., whilst senior Policy Advisors could be quantified, it is likely impossible to quantify the influence of 'media'.)

Step 4: Drawing a divergent and convergent line of the policy idea development

As a final step, to bring together the bottom and top half of the timeline, participants were asked to draw a line. This line indicated how wide or narrow they experienced the idea development process to be at certain points of the process (Figure 6.6).

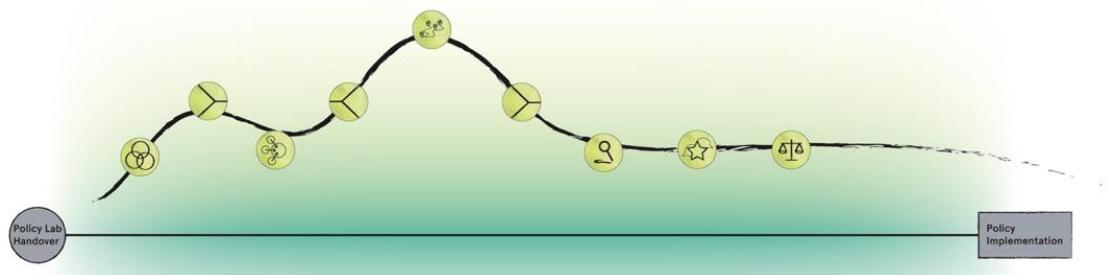


Figure 6.6 Visualising a drawing of an idea development line on a timeline template. Example of a line drawn indication the narrowing or widening of the idea development process (after the stickers had been stuck down on the timeline). In this example, the visual metaphors had already been placed, according to how narrow or wide the idea development was at that point of the process. Participants were not forced to follow this approach, but instead were allowed to use the stickers in ways that worked for them.

The higher the line, the wider the process, the lower the line (towards the middle of the timeline template) the narrower the process. In determining the shape of the line, participants were asked to reflect on both the activities taking place as part of the idea development process (top half, visual metaphors) and those influencing the process external from the policy team (bottom half, layers of influencers).

Participants were invited to draw a final line as part of the activity so that they could reflect on their timeline as a whole, encouraging them to reflect on how the process had moved forward from the Policy Lab handover through to the delivery of the policy

document. Drawing the final line signalled the completion of the timeline exercise (Figure 6.7).

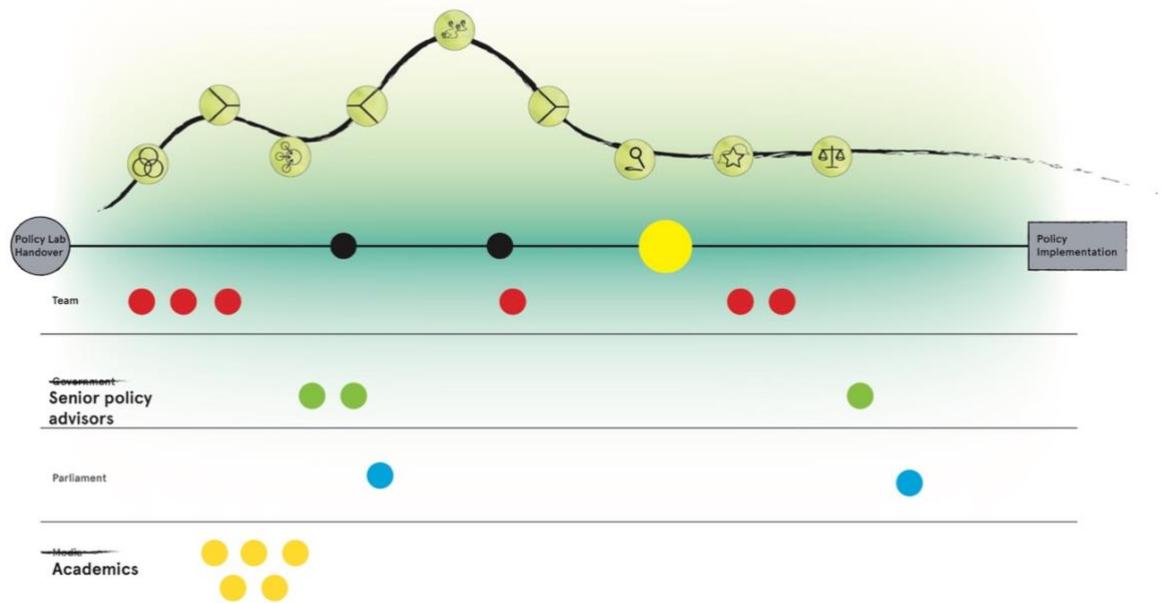


Figure 6.7 Visualising a completed timeline template. An example of how the timeline was expected to look after completion (without any annotations from the participant).

Step 5: Completing the interview

After completing the template, participants were asked to reflect on whether they would like to see the practices of policy idea development change. As I expected that participants may have a high-level response to this question, a follow up question was posed, challenging them to reflect on the first step to take in making such a change happen. This follow-up question served two purposes. It provided me and the participant with concrete ideas on how the process could change and allowed participants to have a key take away from the interview that they may be able to integrate into their own practice – or undertake action in order to achieve this step.

To test the quality of the interview setup and the design of the materials, I conducted a pilot interview (Figure 6.8). The pilot made clear that the use of visual metaphors was

likely going to support participants but that it was important to leave enough time for the population of the bottom half of the timeline.

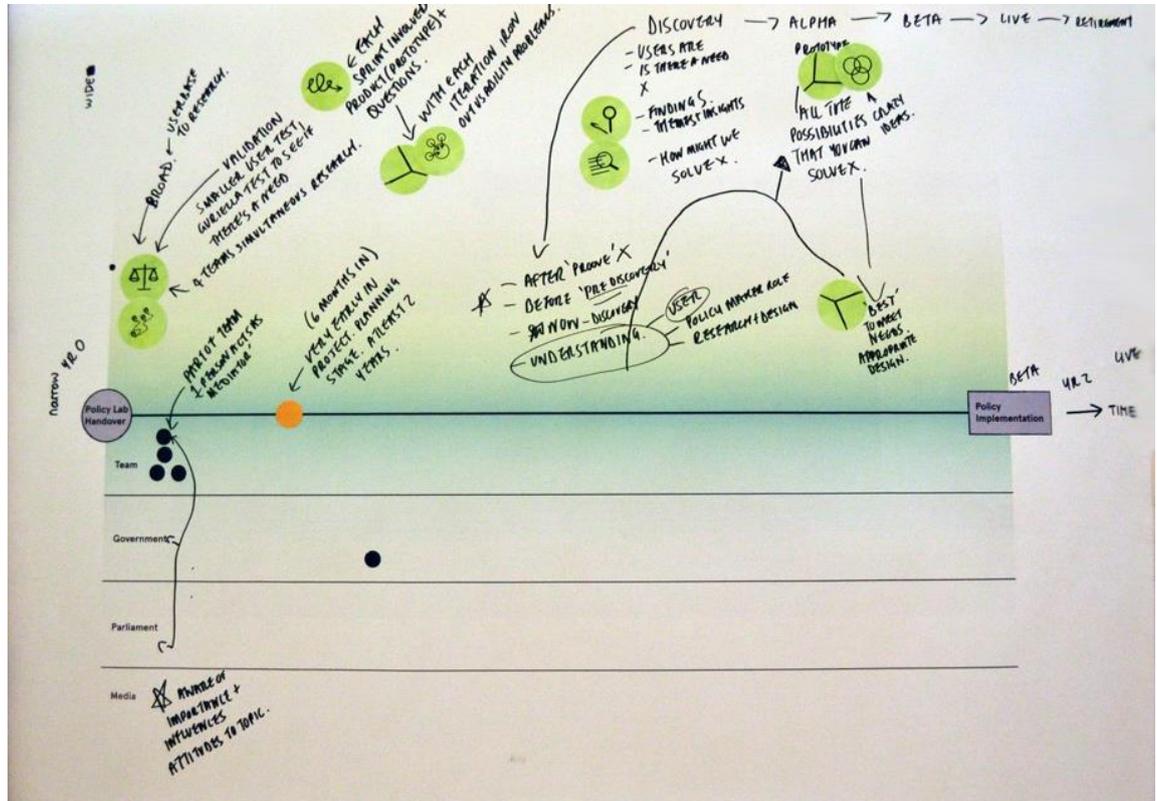


Figure 6.8 Final result of pilot interview timeline completion. Picture of the populated timeline by user researcher P01, as the result of the pilot interview. As is clear from the picture, there was too little time left to populate the bottom half of the timeline.

6.3.1.3 Semi-structured interviews with senior civil servants

In addition to the interviews with policymakers acting in the development phase, several professionals in positions of strategic development within the civil service were interviewed. (These participants have a 'P0[x]-S' participant code.) Participants were asked to reflect on how new approaches to policy design may become part of conventional practices. The interviews were framed around a specific development within government practices: the use of Design-oriented methods used at the Department for Education (DfE) and the development of a design methodology for HMRC (P05a-S, to P05d-S). I conducted these interviews in order to understand, from a management-level perspective, how civil servants reflect on policy processes as a design process. Rather than using the timeline template, the structure for these interviews was

tailored to the design orientation of their department. The interview structures can be found in Appendix I.

6.3.2 Analysis

In total, the data set is made up of 8 interviews with a total of 14 participants (plus the one additional interview that functioned as a pilot, which was not included in the data analysis).

The basis is the thematic analysis of the dataset, following phases as described in Chapter 3 (Section 3.2.3). In the following, specifics to the analysis of the dataset of this Study will be discussed. Below, I detail the specifics to the analysis of the interviews with policymakers – which includes how the visual overviews were integrated in the analysis.

Whilst most of each of the interviews was transcribed and coded, some sections were left out of the verbatim transcripts and further analysis when they a) discussed sensitive information that participants did not wish to disclose publicly, b) described topics considered out of the scope of the study. These sections were included in the transcripts as short descriptions but, as said, were not included in the analysis of this data.

To start the analysis that combines transcripts and visual overviews, four interviews were used to get familiarised with the type of data that was gathered. Familiarising myself with a subset of the interviews first, allowed me to better understand the ways in which the different types of data could be integrated in order to inform the thematic analysis.

The four chosen interviews appeared most similar to the anticipated use of the graphic elicitation method and focus of reflection (as described in Section 6.3.1). The audio recordings were transcribed in full, and an initial overview of the participants was made: The department they worked for, the project they worked on, and for how long they had been involved in the policy process. Their approach to visualising their process provided an impression of how the participants had used their use of the template in reflecting on their process. For example, whether the visual representation developed as the interview progressed, or whether the visualisation and reflection appeared more separate from each other.

My analysis was led by the transcripts of the interview data, and I returned to the completed timelines to contextualise and bring in additional insights as needed and where appropriate. As an additional data source for this Study, the visual overviews allowed me to evaluate emergent interpretation across the different interviews. For example, the visual overviews provided visual cues to reaffirm when and which activities, external influences and policy team's foci came together during the process. This allowed me to make *visually led interpretations* (Bagnoli et al, 2009) of the data in this Study to better understand the complexities described by participants.

6.4 Findings

Throughout the interviews, the participants were encouraged to link their reflections to the development of a visual overview of the policy design process after their collaboration with Policy lab (see Appendix K for scans of all the populated visual overviews). To enable participants to reflect on idea development in their policy design process, their attention was brought to the different stickers and elements of the tool and use these to share their reflection with me. Participants remarked that the exercise helped them to gain an overview of the process, and to increasingly add detail and complexity to the mapping as they reflected on their experiences process. As the participants developed their visual overview, when placing stickers and or adding annotations these often triggered further reflections into how the specific experiences related to other aspects of and moments in the process.

When asked to indicate the length of the timeline of the process they were going to reflect on, participants described the process of Policy Lab's handover through to the delivery of a policy document to take about 1 to 2 years (Figure 6.9). In this period a policy team – often existing of three members - goes through a process subject to approvals. Through the interviews it became clear that, in order to understand the circumstances under which policy teams operate, the findings of this Study need to be situated in light of this apparent approval structure in policy design.

“worth and value” (P03), how it will align to “political appetite” (P03) or how a policy idea shows government is “open” to - for example – “testing” of policies before nationwide implementation (P06). Depending on whether or not a policy idea requires legislative change, it may have to receive ministerial approval. Otherwise, the approval process remains ‘internal’ but continuous to follow a hierarchical structure. As P07a states, each of these approvals “forces the policy team to set out their policy” whilst simultaneously showing that significant decision-making is done by those external to the policy team:

You capture it through the process of decision-making. Whenever you have a decision to make, you escalate it up the chain. [...] [For] that process you have to set out the issue and your recommendation. P07a

This hierarchical decision-making structure furthermore highlights that the role of the policy team is to recommend and advise rather than to decide. As P07a reflects:

I am grade 7. Probably the grade above me or the one above that would be the one to sign it off. [...] It is quite important to know about [these different layers in the hierarchical scale] to understand where the decisions are made. (P07a)

P04a and P04b describe how they were supported by an ‘impacting team’. This team helped the policy team by assessing which other programmes of policy are impacted by changes in the policy on which they are currently working.

Nonetheless, the interviews reveal that a lot of the decision-making practices allegedly come down to “having extremely good networks and talking to other people [...] across government, it seems to rely on knowing people.” (P04a) This may have implications when being relatively new to policy practices. As P01 reflects:

Being in government is navigating different systems. [...] There are so many forms of bureaucracies in this job. If you don’t even know which ones you need to go through, then how are you going to start or plan for it. It is when someone comes in and asks whether you have checked with that person, and you didn’t even know that you had to, because there is no clear guide on how it needs to be done. (P01)

An approval allows a policy team to move forward in the policy making process, but simultaneously seems to determine the direction in which a policy idea will need to be developed further. This as, according to P01, “once you got approval, you are a little bit more set on what you need to do.”

In the following Sections, I report on two key themes from my analysis of the interview data. It appears that much of a policy design process has an internal facing character, and compartmentalising of both policy challenge and research appear to be common practice. This means, there is a strong focus during a policy design process on understanding what the impact of a policy idea is likely on the operating of government. As such, the human-centred perspective advocated for Policy Lab becomes part of a multi-faceted analysis and evaluation of a policy idea.

Participants' detailed reflections on the bureaucratic approval structures make clear that these play a significant role in a policy team's ability to progress a policy idea. I found that, consequently, the participating policymakers experienced barriers influencing these processes with the Design methods introduced by Policy Lab. Nonetheless, the reflective thinking that policy teams were encouraged to use during their collaboration with Policy Lab continues to be of use as the policy design progresses.

6.4.1 Synthesis practice of policy teams

As participants populated the top half of the timeline, the majority of them reflected on how the policy team involved external teams for specialised analysis to investigate specific aspects of a policy idea (Figure 6.11). This theme reports on the reflections shared by the participants on the role and focus of the work of these specialised teams.

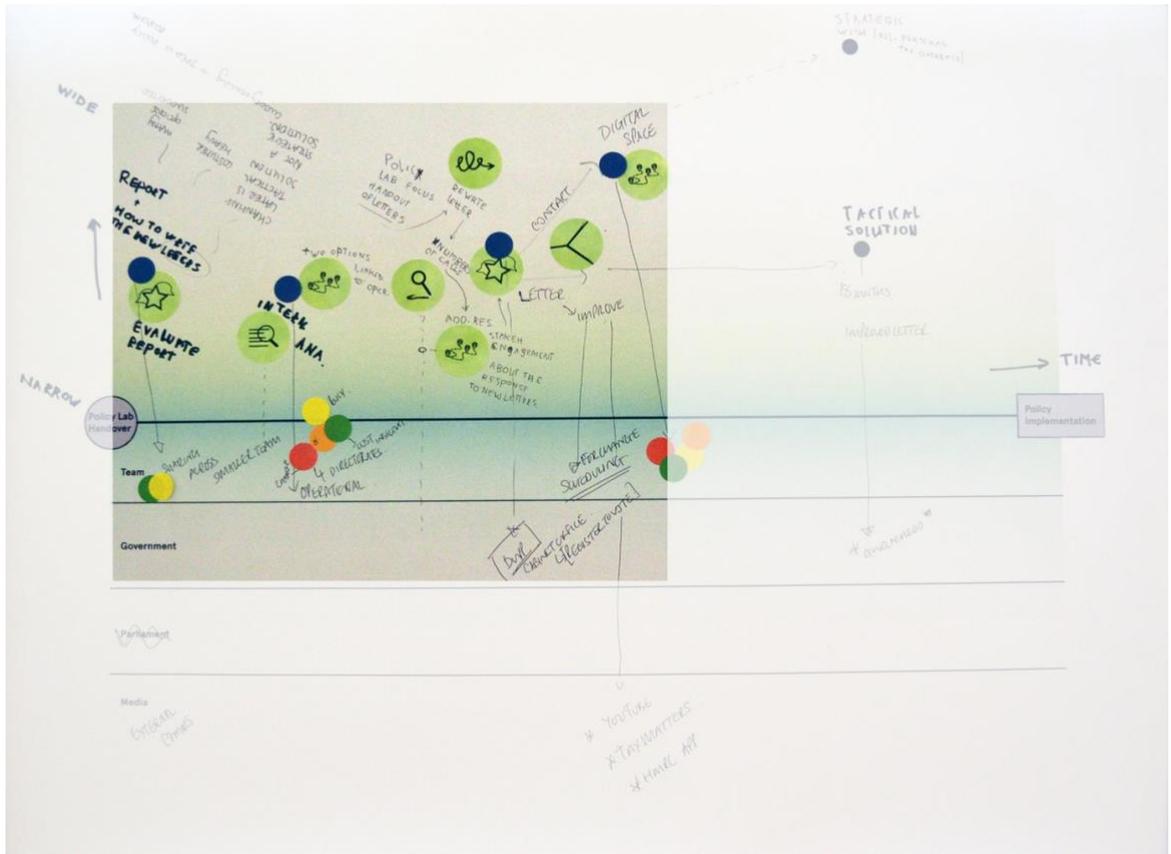


Figure 6.11 Example of external teams to policy design process. Participants P04a and P04b indicated, with blue dots, when external teams were involved in their policy idea development process. Amongst others, they indicated an ‘operational’ team and a team from DWP (Department for Work and Pensions).

I found that synthesis practices within policy teams are both supported and challenged by a reliance on external teams to gather specialised knowledge in order to develop a policy idea. Several participants reflected on how their work with Policy Lab had informed their approaches to overcome some of these challenges. By focusing on being more involved in the sense-making activities that would otherwise be outsourced fully to specialist teams, a policy team may better understand the impact of a policy idea.

6.4.1.1 Gathering specialist policy advice

In going through the visual mapping of policy idea development processes, participants reflected on their specific role within policy design. As policymakers, it is their role to provide advice to those who are in the position deciding which policy idea will be implemented. Whilst the participants often included the visual metaphors of ‘exploring’ and ‘analysing’, the knowledge that informs these activities is gathered through external teams. This is because, according to P06a, policymakers “are Policy Advisors with a

generalist policy approach. At the end of the day, we are getting our specialist advice from the specialists.” (P06a)

These external teams appear to support policy teams in analysing a policy idea within the constraints of reality. For example, P02 describes how a specialist team supported them in conducting an interim analysis of their policy idea:

To see if we needed anything else with these ideas to carry on. Whether we had missed a department or a piece of legislation. Mostly to make sure that we didn't end up here [points at a moment of approval on the timeline] and missed something. [Writes down:] 'Make sure that policy team hasn't missed anything, legislative or ..' Actually, the other thing [they analysed, was] IT-based. Because something was a potential change on a computer system. [...] It was about checking the tech. (P02)

This example presents a more supportive and “*overarching*” (P02) role of specialist advisors, as they guide the policy team through an analysis of their proposal. The interviews simultaneously illuminated how specialist teams may also be conducting significant parts of the analysis needed by the policy team in order to evaluate the viability of a policy idea. Amongst others, specialist advisors appear to analyse how certain policy ideas would nest within the existing structure of policies, how policy ideas may have an impact across other parts of government, and what the effectiveness of certain policy ideas have been in the past. Throughout the interviews, participants referred to these specialists as ‘impact teams’, ‘analysis teams’, and ‘user research teams.’ Figure 6.12 shows an example of how participants visualised the influence of these external teams on their process.

understand Policy Lab as a team that conduct specialist analysis for the policy team. Whilst practices around user-testing – such as prototyping and analysing user feedback – may be perceived as a specialisation outside of the policy team, collaborations with Policy Lab appear to have led several participants to reflect on and adopt part of Policy Lab's approaches into their synthesis practices. P03 gave a detailed description of how Policy Lab *“seeks to pull together different skillsets and create policy projects out of them”* in contrast to current approaches of outsourcing skillsets. They reflect that this may influence *“some of the behaviours that potentially drive how they [policymakers] think about and perceive themselves:”*

What I find really interesting about the policy lab ‘mission’ is that it, [...] if you are working on a given project with policy lab, there is part of that project that is responsible for the ‘in the field analysis’, and the ‘political scanning, horizon scanning’. Those components fit together to make a policy project.

Instead of a policy person who thinks; I am the policy person and I have an analyst who work with me for a day a week, and I'm just going to send this to them, they will analyse this, and then I'll get an email back and that is my analysis.

What I think is interesting about the policy lab model is that if you are a policy person, you need to understand research. You might not be the person that does that day to day, but you need a really close relationship with that person. (P03)

P03 describes how, in order to better synthesise the gathered knowledge from specialist advisors, policy teams may need to build a closer relationship with these specialists. Reflecting on their collaboration with Policy Lab, P04a reflected how they decided to spend more time with their advisors when continuing the development of the policy idea:

They went to get feedback from advisors there, which was a normal process, it is a standard in the process. But spent more time with them to better understand the problems they had. Which led to the advisors telling them about problems that were closely aligned with problems highlighted in the policy lab report. (P04a)

Whilst involving specialist advisors allows policy teams to gather knowledge on different aspects of a policy idea, it appears that their synthesis practices would benefit from taking a more involvement-focused approach. Rather than focusing on outsourcing the gathering of knowledge, through the interviews it was found that spending more time

with specialist advisors is likely to allow policy teams to synthesise their knowledge in more depth.

The following section focuses on participants' reflections of their focus in policy idea development. The interviews made clear that these processes are strongly influenced by the type of approvals policy teams need to get in order to progress their idea development. Whilst the knowledge produced through Design methods and Policy Lab approaches are experienced as valuable by most participants, they simultaneously reveal tensions that exist when aiming to bring in information that does not fit the conventional knowledge formats.

6.4.1.2 ***Building a detailed understanding of the impact of a policy idea***

When inviting participants to reflect in more-depth on their focus on evidence gathering as part of their policy idea development processes, it became clear that forms of knowledge they believe should be considered in policy idea development are simultaneously similar and in tension with current practices in policy design.

From the participants' accounts, it became clear that in this phase of policy design, policy ideas need to be considered within the constraints of government. Their work in this phase has a strong focus on investigating the impact of a policy idea and its consequences for government when implemented at scale. P03 describes a focus on narrowing down the scope of the process – adding a 'narrow down' sticker on the timeline just after the handover from Policy Lab: *"After the handover there was a period where the team [was] focusing on what would have most impact in [terms of] time and resource, context and constraints."* P03 reflected on how the policy team was exploring the impact of *"setting quotas for the sector as a whole to fulfil [in order] to deliver improvements."* He explained that this process included more *"typical classical policy stages around analysis"* - as he picks up the sticker 'evaluation' and 'validation'. In order to evaluate the impact of a policy idea, he continues, they relied on understanding *"the historical success of targets as an intervention"* in order to analyse *"what targets are realistic, and [...] balanced with what is ambitious enough, politically."* (P03)

For example, P04b reflected on a project where they aimed to improve the design of a letter sent by government to citizens as they come of age. Part of their impact analysis focused on how improvements to this letter could result in fewer phone calls into another department, by ensuring that the letter covered several of the more frequently asked questions. For this, P04b's team had statistical modelling done by – what she referred to as - the 'operational' department to estimate what impact 10 or 20% less phone calls would be for another department of HMRC. P04b's work highlights a focus on understanding the impact of nested policy ideas, as *"policy does not take place in isolation."* (P04b)²⁹ As such, the viability of a policy idea seems to be determined by bringing together a picture of *"how it plays in with other types of policies in the department, where are the tensions, where are things supportive and contradictory"* and understanding whether there is *"a kind of political appetite"* for the policy idea. (P03) Overall, according to P07a their impact analysis practice *"feels much more closed and internal-facing and literature based"* compared to the Design-led work of Policy Lab. Whilst these practices allow policy teams to get an understanding of the impact of a policy idea implemented at scale and whether this is viable for government in terms of how it may impact other policies, these practices are not without criticism from the participants. P02, in particular, reflects on his perceived lack of external focus of the impact analysis: *"There are meetings or sessions where I think, if we put that time and energy in just for our team's benefit, we would create extra benefit for the public."* (P02) This criticism appears to be a driver for collaboration with Policy Lab. P03 describes how his experience of working with Policy Lab to understand how to increase the diversity amongst head teachers in schools resulted in taking a more situated perspective on understanding the impact of policy:

Rather than doing what I felt is normal within government departments - you do a consultation, you do high-level, umbrella, far-reaching information gathering - this was a much more a one-to-one understanding of what people got to or not got to [in] where they want to work. (P03)

P07a appreciates Design and Policy analysis methods differ in the scale at which they aim to understand impact. According to her, conventional analysis focuses on *"macro, broad-based, less bespoke analysis of recommendation."* In contrast, P07 describes,

²⁹ In Section 6.4.2, it will be addressed in more detail how the nested nature of policy ideas impacts policy team's ability to make use of Design-oriented methods in their practices.

“Policy Lab feels much more bespoke in understanding the kind of recommendations of work in a particular topic, designed for a particular context.” (P07a) It seems that, when advising ministers and other senior leadership, video documentation is a particularly strong means to convey impact of a policy idea on micro scale.³⁰ P08-S, who is in a strategic leadership position, shared how he has used video to recommend an idea to a minister:

I have shown ministers videos of us user testing. We were redesigning how people apply to become teachers, where we took the ministers through a video where someone used the old system and showed them the new system and used that to explain why we were asking him to make decisions about how the policy in that way. [...] But this is not the normal way how we engage ministers. Normally it is written advice. (P08-S)

When asking P02 which value Design methods he felt had contributed to the policy idea development, he too reflected on the role of user feedback and how it allowed them to analyse the impact and viability of a policy idea:

We had actual sheets of paper full of feedback from the users. [...] It was feedback on these prototypes that we walked through and discussed is this something that can actually be implemented. Do we have the resources to do something... looking at user feedback. (P02)

From P08-S’s and P02’s experiences, the prototypes of policy ideas allowed them to analyse the impact of their policy idea through a synthesis of both user-centred and government-centred perspectives. Whilst this appears to present a greater opportunity for Design’s prototyping practices to enable such multi-perspective synthesis, participants emphasise several elements to consider carefully when using prototypes and user-feedback to initiate the evaluation of a policy idea.

As this phase of policy process focuses on building a picture of the impact a policy idea may have, P05a-S reflects, prototyping practices should not be done in isolation from other parts of the analysis. Especially when keeping in mind that a policy is likely to not only impact citizens but also to influence the impact of other policies:

What we found with prototyping, [it] could be done in a silo, they may not have considered the bigger picture impact. They make prototypes of something that works really, really well in that area, but when you take it out of that area and

³⁰ Nonetheless, this is likely to happen outside of the normal procedures of approval discussed at the start of this Section (6.4). This aspect will be discussed in detail in Section 6.4.2.1.

try to scale it up across HMRC, it causes all kinds of problems [across other departments]. (P05a-S)

Again, building on section 6.4.1.1, the involvement of different specialist advisors may be a valuable way forward to overcome challenges such as these. P05c-S recognised this, as she highlighted that they hope, in the future, “*to have some of the delivery people involved earlier on in the design process. So that they are building their knowledge from the start, and that it is not just a cold-handover.*” (P05c-S) According to P05a-S, bringing prototyping into this phase would then allow policy teams to move across the different scales and perspectives:

We know what kind of problem you want to solve, you have got some options and some solutions [through prototyping]. Now, let’s look at that in a bigger picture view. That is the way prototyping could work. (P05a-S)

In addition to participants’ descriptions of increasing involvement of people across the length of the process – e.g., special advisors and those working at later stages of policy implementation - P08-S argued that there may also have to be hierarchical involvement. As an example, he brought forward how micro scale evidence may need to be involved in conversations with ministers who are allegedly more involved with macro scale evidence:

I think that is sort of showing the things, it is not explicitly in the service manual, but you have to demonstrate that you have done that user research and I think involving ministers in that is really important. (P08)

Whilst it does not necessarily mean that long- and short-term or micro-macro perspectives on the impact of a policy idea contradict each other, participants anticipated that there is a likelihood for these types of evidence to be in tension. P08-S reflected:

Depending on the nature of the work that we are doing [it] may well require user research to sit alongside broader qualitative and quantitative evidence. They may be in conflict. That is a hard thing when we have user research. We might have developed [it] through ethnographic techniques and so on. [The findings may] contradict with what the more empirical data tells us about our behaviours. (P08-S)

It appears that policy teams are looking for ways to better balance their efforts of analysing the impact of a policy idea and overcome conflicts caused by the use of different forms of evidence to understand the impact of a policy idea. P02 shared feeling

that it is important *“to put that kind of energy in what we are producing for the public rather than just on what we are producing for our projects internally.”* (P02)

Through challenging participants to visualise their practices of building a complete and evidence-based picture of a policy idea, the participants showed how they aim to advise in a process of balancing the use of macro and micro scale evidence from internal and external perspectives to advise ministers on the impact of policy ideas.

Reflecting with the participants on how Design methods and deliverables have been used in this process, showed barriers exist within current policy design practices to develop a ‘complete picture’ of a policy idea. In particular, their experiences of using micro scale evidence from external impact perspectives – such as prototyping policy ideas and video-documentation of user experience – foreground a particularly strong focus in current practices on the impact that policy ideas may have on the organisation and operation of government. There appears to be a need for skills within policy teams to synthesise a combination of macro and micro scale evidence and to balance internal and external impact perspectives. These practices, in particular, may need to enable policy teams to explore the tensions between different types of evidence and perspectives to contribute to policy decision-making rather than creating barriers. In the next Section, I take a closer look into how policy ideas are progressed by focusing on how decisions are made, and how details are determined when refining a policy idea.

6.4.2 Refining and negotiating in policy idea development

As participants populated the bottom half of the timeline, detailing groups of people that were involved in their policy process, it confirmed how policy idea development is not a process taking place solely within the policy team. Responsibilities of different aspects of the process are spread out across different members of government, this is especially visible through the approval structure to which idea development is subject (Figure 6.13).

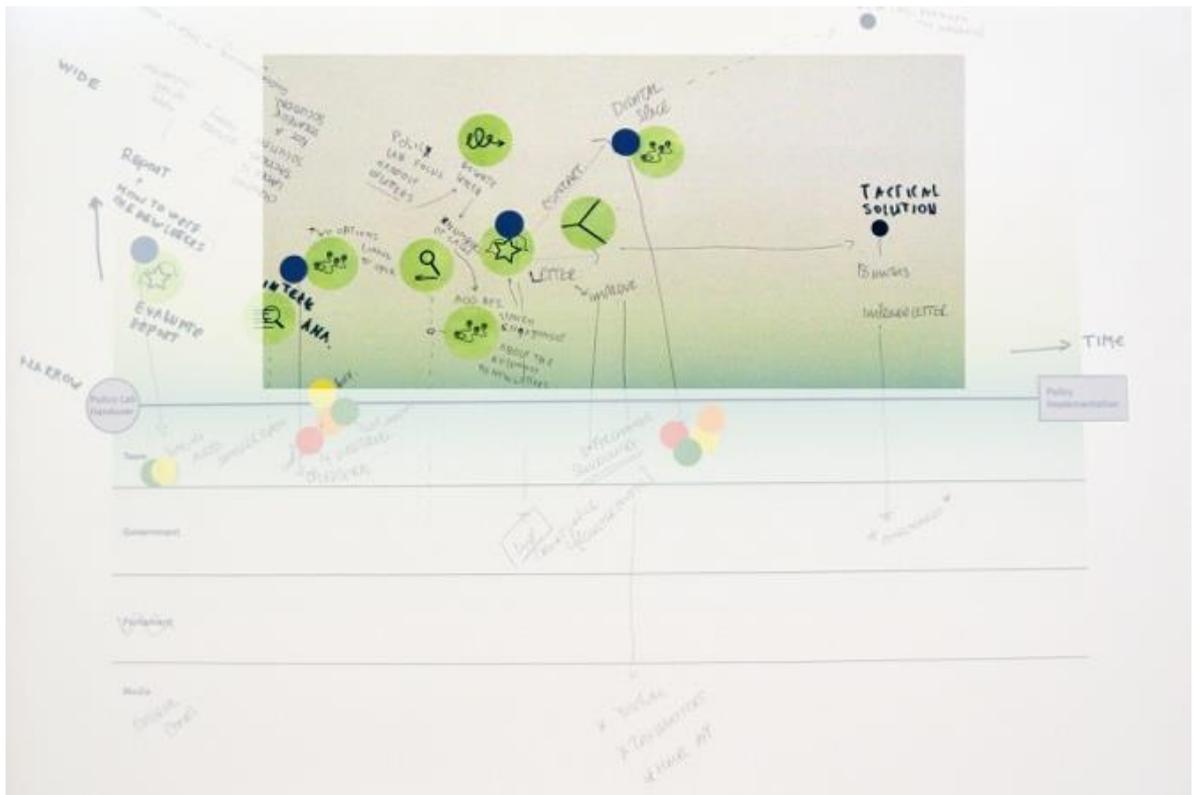
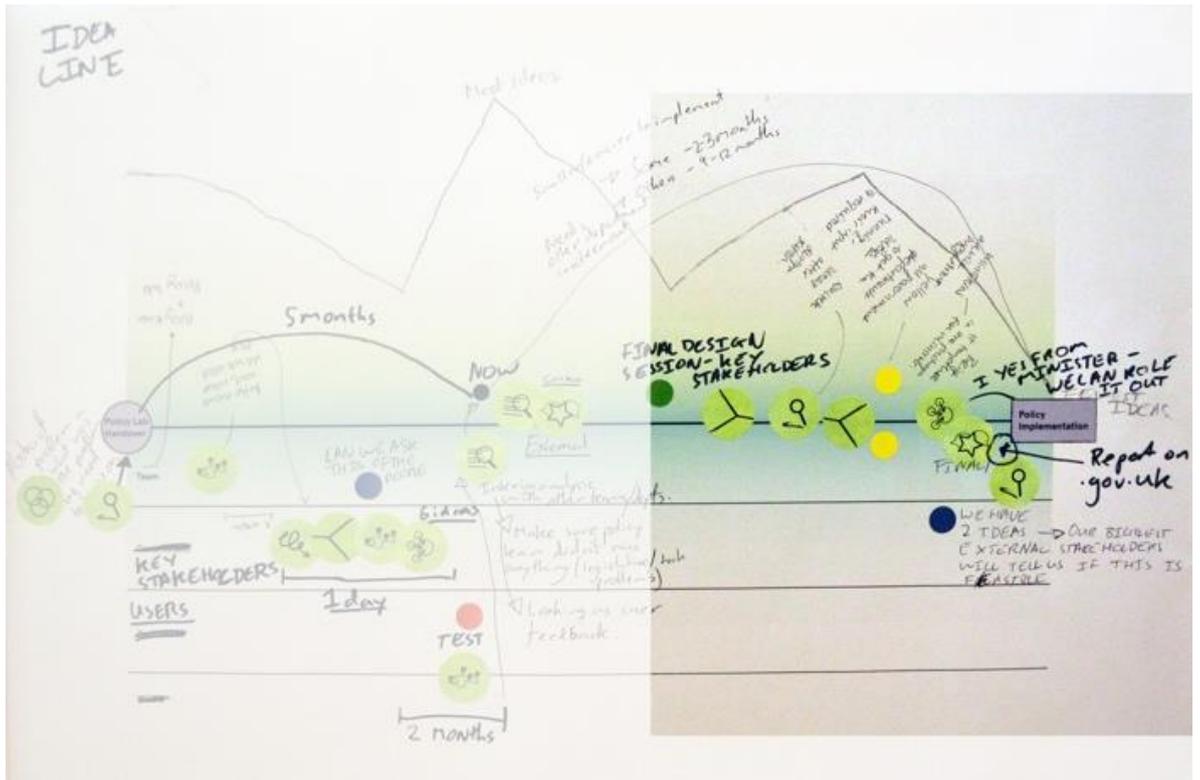


Figure 6.13 Example of participants indicating approval structures on the timeline. Top: The process visualised by P02 shows how the final decision, before a policy idea can move into the next phase (of implementation) requires a “yes’ from minister” in order to “roll out.” The blue dot below indicates that only idea will be chosen: “We have 2 ideas, our biggest external stakeholders will tell us if this is feasible.” Bottom: Participants P04a

and P04b indicated that in the first half of the process there were “two options” (annotated to the ‘exploring’ sticker). In the ‘evaluation’ after this (sticker) the decision was made to only “improve the letter.”

As the reflections by P02 highlight the need for approval to proceed the policy design process, it becomes clear that this power of decision-making lies outside that of the policy team. P07a reflects on this from the perspective of a policy document as ‘the thing’:

Often, I think, the people working on ‘the thing’ are not the same people as doing ‘the thing’ or having responsibility for ‘the thing’ and I think that causes a mismatch in how things get done. (P07a)

In their reflections, participants spoke about the negotiation that takes place between the different groups when refining a policy idea. A major influence in this is the role of policy teams in relation to their seniors and the minister to whom they report. Policy teams are to advise ministers, impacting idea development processes they are able to go through:

If you have a minister ultimately responsible for how you are achieving a particular outcome, if you have multiple ways of delivering that service, that places a degree of risk on ministers which our system is not well set up for. There is something in how our oversight and variant appears in services and how that fits with accountability. And I don’t know how we get around that one, but that is what I have observed is a problem. That you end up having to make decisions that sort of standardise services at a national level whereas you actually hope to be using multiple ways of achieving that outcome, depending on the particular circumstances of a particular area or a particular user group. (P08)

In the following Sections, I will take a closer look into how policy ideas develop as part of policy design processes. In the first section, participant reflections are unpicked to understand the opportunities and challenges for exploration at this stage of policy processes. Section 6.4.1.4 focuses on how policy ideas are refined throughout the process, making clear participants’ criticisms of how certain practices are allegedly valued over others.

6.4.2.1 Exploration in policy idea development

Reflecting on how policy ideas were explored during their process; participants shared their range of experiences of refining policy ideas and how these differed depending on the context of the policy challenge. In response to further questions on the role ‘exploration’ had in their processes, the accounts of participants surfaced a drive to

progress policy idea development with a certain decisiveness. P07a shared, in particular, how she feels there is little time to ‘stop and reflect’ on decisions made along processes:

I feel like that in policy making you would have instantly gone through that refining process quite vigorously and it would really have been based on priorities and other factors that your team would have decided about and you would not have stopped and reflected on the same kind of considerations. (P07a)

When asking P03 what roles he sees for more reflective aspects to idea development – such as ‘testing’ – he expressed how evaluation and monitoring practices in policy design, to him, feel “quite tokenistic, [as] a tick-box exercise.” He reflected, with a similar criticality, on his experience of there being a strong focus on moving forward in processes:

What happens, is just this [he draws], I think you are just making, and making, and making and the intermediary period you actually are not evaluating, you are just responding to things. [...] You are just throwing things out there as to service the request. (P03)

In order to articulate his thoughts, P03 drew a line of how he believes processes should develop instead: “more like a role or wave” which is “a making and evaluating trace” (Figure 6.14).

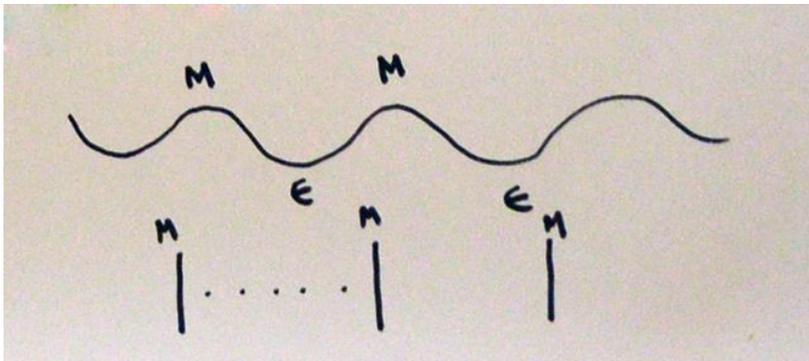


Figure 6.14 Visual representation by participant of making and evaluation processes. Drawing made by P03. At the top, a wavy line in which ‘making’ (M) and ‘evaluation’ (E) alternate. The bottom vertical lines indicate ‘making’ (M) as moments, rather than the ongoing process that is indicated by the top wavy line.

Overall, there appear to be few opportunities to consider and reflect on decisions that have been made as a policy idea progresses. Instead, policy ideas may not go through much change or get explored further. The development of the policy intervention seems to focus on detailing the policy idea and its impact (as discussed in section 6.4.1.1), more

than on exploring different types of policy ideas in parallel in order to identify the most suitable policy idea for its context and impact. P01 reflected on this:

We wouldn't be exploring the kinds of platforms again [during the process, after the handover from Policy Lab]. It is quite clear; here are the different ways to do it. But it is exploring what needs to happen next. More in terms of 'how do we get this report and actually get it turned into something', and that is about navigating all these steps. (P01)

In the interviews addressed above, participants reflected on a project in which teams appear to be set on specific policy ideas early on. As such, as the policy solution to the policy challenge is allegedly known, these processes appear to be limited in practices of exploration, evaluation, consideration and reflection. Overall, participants shared experiences that appear to be driven by a need for decisiveness. This professional attitude seems to be in contrast with the values central to Design-oriented open policymaking practices developed by Policy Lab. Asking participant P08-S when he has been able to use open policymaking techniques, he responded:

It is particularly for where we know 'there is an outcome that you are trying to influence but you don't know the most effective way of doing it', we have used those techniques there most effectively. (P08-S)

His reflection indicates a type of policy challenge in which there may be a less decisive approach to policy idea development. When it is not well understood how a policy intent might be achieved, opportunities seem to arise to take alternative approaches. These processes – according to P08-S – allow for more open approaches to policy idea development where there seems to be a clear unknown in the process. For example, the policy challenge itself may not previously have been addressed, a new or neglected industry is the focus of the process (P06a, P06b) or there may be an increased interest in an underrepresented target (P03). The reflections of several participants highlight that in their projects there was more room for exploration and there were no clear problem definitions or suggested solution propositions. As it is unknown to Government how to define and or solve the policy issue, these type of policy issues appear to integrate more easily with Design-oriented methods than the type of processes discussed above.

Several participants made clear that when there is no history to a policy this presents challenges to following traditional procedures focused on largescale and historic analysis of the impact of policy ideas. Consequently, such projects are more likely to go through

a less “standard” process and explore new methods to policy idea development. P03 describes that a lack of policy history presents a policy team with a ‘blank sheet’:

[When it is] a policy area which is quite lacking in a policy history. [It is] a blank sheet of paper. All options are options, space to be innovative and creative and no obvious tested solutions and no solutions which utilise the usual levers that a government department would have. (P03)

This, too, is emphasised by P08-S:

Where we can do that [open policymaking] most effectively, is often where we are designing a new service. Where there is a gap. The hardest place is where there is often where there are existing services, something existing is in place, your policy initiative has to dock into a set of existing policies and that can often place constraints around the choices that you can make. I think that is the space where it is hardest to keep that open approach alive. (P08-S)

An exemplar domain in need of policy, as it is one without a policy history, is the domain that addresses and responds to the impact of emerging technologies such Artificial Intelligence, Autonomous Vehicles and Virtual Reality. P06a and P06b reflect on a project that investigated the impact of Autonomous Vehicles on the maritime sector. Together with Policy Lab they explored scenarios of autonomous international vessels to provide input for the government’s strategy for the maritime sector ‘Maritime 2050’. As the impact of this emergent technology does not yet have a policy history, and as the maritime policy sector – according to P06a and P06b – has not been the focus of policy development over the last decade:

There is more opportunity to test [a policy idea]. If you test these [policy] ideas in traffic, you tend to think about ‘autonomous cars’ and drones. Those technologies because they are more advanced and visible. People don’t think about ships, because they don’t see them, because they are in the middle of the ocean all the time. (P06a)

Given the unprecedented impact of emergent technologies on society and a lack of policy addressing this impact, the outcome of policy design processes of this kind appears to be different. Rather than a policy document detailing how a policy intent will be achieved, policy teams appear to work towards strategy document, as in the case of P06a and P06b’s Maritime 2050 project. P03 highlights how these outcomes, furthermore, have a different role from more conventional policy projects. The outcomes aimed at “setting direction”. Their processes focused on identifying “what kind of public statements we could make that would demonstrate government’s

commitment to solve the issue.” (P03) Rather than working towards a policy that could be implemented in order to address a policy challenge, P03 described how the idea development process of his team focused on *“what kinds of interventions would they be able to put in place that aren’t final solutions.”* (P03)

The interviews highlighted how policy idea development processes may have limited room for explorative methods. This as there appears to be a significant focus on delivering a policy that limits impact on other existing policies. In contrast, projects that take a more exploratory approach to policy idea development are likely to address an unknown to government. These processes appear to open up for the use of Design methods not to serve as approaches to policy problem-solving but, more so, as a way for government to *“demonstrate the vision”* and *“highlight areas of focus, future focus”* of policy domain. (P03)

In the next section, I will focus on understanding how participants conveyed advice to their senior leaders and ministers throughout the process. Through the interviews it was found that procedural structures such as internal and ministerial approval influence idea development processes and may create barriers to taking iterative approaches.

6.4.2.2 Iteration in policy idea development

Central to Design processes is the iterative development of design ideas into concepts, prototypes and, eventually, products and services. Since the aim of this Study is to better understand idea development in policy design practices from a Design perspective, I was interested in understanding whether or not iteration was a focus of participants during their processes. When reflecting on their desire to iterate policy ideas, participants shared experiences of facing particular challenges in doing so.

Reflecting on iterative practices in the perspective of Government, P08-S emphasised that – he believes that – ministers are often blamed for a lack of iteration within policy idea development. Instead, he argued, challenges to iteration may be designed *into* the structures through which policy teams are required to articulate their processes:

The iterative bit that is hard is working with ministers who want to be able to have greater certainty and clarity about how we are going to achieve a particular objective. I think it is sort of the nature of the way in which

government is constructed, that that is an inevitable fact. [...] The way our system works it places an important premium on how you are able to articulate how something is going to happen and that is often scrutinised through the parliamentary scrutiny process and the national audit office and so on. I think it is those things that often make it harder to be iterative. It often gets dressed up as ministers being a problem, [but] I think it is that broader context in which the whole the government is constructed and institutionalised that is the problem.
(P08-S)

Standing out in P08-S's comment is his mention of the importance given to *the "articulation of how something is going to happen"* and how this may stand in the way of taking iterative approaches to policy idea development. Once particular aspects are decided upon in a policy idea, it seems that it is unlikely for these aspects to be reconsidered further along the development of a policy idea or reflected upon in order to understand whether they respond to the policy brief. P07a reflects on her experience working at Policy Lab, highlighting how in conventional policy practices, meaning and assumptions embedded in priorities and criteria may not be unpicked. In contrast, Policy Lab's approaches to idea development appear to focus on critically reflecting on 'categorisations' that may have been made during the process:

There [are] a lot of accepted terms that are used in policy making that categorise people and groups and services that you don't really, you talk in very different terms about these in a policy landscape. You don't critique them in the same way, you accept them as your pawns that you are going to move around the board. Whereas in Policy Lab you can peel those pawns apart and they need to be explored, because if you don't you leave a lot of space for getting things wrong later on. [...] It is really nice to actually think about the categories of people that you are talking about. It has pushed open a massive extra stage.
(P07a)

Reflective practices as an approach to moving back and forth in idea development processes may not only support a critical mindset towards assumptions. According to P03, there is a great need for practices that support policy teams to return to the policy challenge brief they are addressing: *"I could be wrong, but that less than 10% is on 'stay on top of the brief, what has been done previously, and how / if this has worked."* (P03)

By 'staying on top of the brief' policy teams may enable themselves to look forward by looking backward. P04b described how she and her team, after working with Policy Lab, kept initiating moments in which they *"stopped and reflected on the work that they had done with Policy Lab and the insights from the other project."* The goal here was to

figure out “*what other things had to be done*” in their process. P04b shared how this process of ‘looking back’ was centred around particular parts of the Policy Lab report: “*There were four distinct points where we kept coming back to. [...] Policy lab’s work was very useful let’s not lose it and coming back to it.*” (P04b)

In developing a design methodology for idea development in HMRC, the four participants in interview 06 (P05a-d) were concerned with encouraging policy teams to iteratively refine policy ideas as progress is made. Rather than focusing on articulating detail of the policy idea from the start of a process, descriptions should first be rough. Through increasingly introducing detail to their ideas, P05a-d aimed to incentivise less hasty decision-making and to lower the number of assumptions made when aiming to understand aspects of a policy challenge. Overall, P05a-S argues, the idea behind HMRC’s design methodology is to initiate a culture shift towards iterative practices in policy idea development:

Is it fair to say that people seem to think that they have to fill it in to a very low level of detail, straight away. This is a broad statement. What we are trying [is] to culture [a] shift towards that of iteration, where people are comfortable with very quick answers early on with the detail following as they work it through. [...] We have not done this in reality yet, but just talking to people about these things, people are concerned that they have to do a lot of work up front. But that we are saying: ‘no, it is quick and easy’. (P05a)

P02 recognised that this shift, alongside structural change, requires a personal change from policy teams and their network:

The importance of iteration. The importance of applying a bit of – it is almost psychological, that bit of applying emotional intelligence in how you engage with your stakeholders and keep them interested. How you, as a Policy Advisor, get the best out of people without people feeling ‘oh just spent 8 hours in a room and I am really bored now. (P06a)

Through the interviews, it has become clear that designing new procedural structures such as HMRC’s design methodology may be essential for enabling policy teams to introduce iterative practices to their processes. Although, in order to change existing procedures, there is a need to find a balance between government’s motivations and policy practices. P03 argued:

I think what needs to change is that the balance needs to be shifted in how you acknowledge and reward good work. [...] Government is good at making announcements, it is very milestone driven, I think there needs to be a better appreciation of work which is based on ongoing monitoring. (P03)

By looking at the participants' processes specifically from the perspective of iteration, it becomes clear that current structural frameworks in government - through which policy teams document and communicate their processes to senior leadership and ministers – prioritises decisiveness in policy idea development. According to the participants, it is expected from policy teams to provide detailed articulation of a policy idea early on in the process, and to focus on a singular policy idea as an important milestone to achieve.

Overall, the interviews showed a need for increased appreciation of a wide range of aspects to policy idea development. According to the participants, current government procedures through which policy teams communicate their work to senior leadership or ministers appear to fall short in doing this. Allowing an increase in the level of detail throughout the documentation process, referring back to policy briefs in order to determine next steps, and iteration – for example – through reconsidering assumptions and decisions made, are several of the aspects mentioned in which policy teams currently do not feel supported. Design methodology for documenting policy idea development processes, such as the one discussed by HMRC's P05a-d, may present an opportunity for government to redesign some of their structures in order to facilitate processes that focus on the ongoing monitoring of work.

6.5 Summary of findings

Study 3 highlighted challenges for Policy Lab, and for Design methods in general to influence decision-making and evidence practices in policy design. Participants highlighted how much of a policy design process has an internal facing character, and compartmentalising of both policy challenge and research appear to be common practice. Taking into account the approval structures that play a significant part in the decision-making process of policy idea development, these structures may be in the need for change in order to support policy teams in progressing their synthesis practices.

6.5.1.1 *Outsourcing expert policy analysis to specialist advisors*

The study made clear policy teams take a generalist approach to policy idea development, in which specialist advice is sought from external expert teams. It was

found that synthesis practices within policy teams are both supported and challenged by the reliance on these external teams to gather specialised knowledge in order to develop a policy idea.

Focus of current practices is on outsourcing specialist analysis of the impact of policy ideas. Through their work with Policy Lab, participants expressed how involving these external teams into the process enabled them to synthesise this expert knowledge in more depth and through that improve their policy idea development. It was found that, for example, spending more time with specialist advisors is likely to allow policy teams to synthesise their knowledge in more depth. Based on the interviews, it appears that Design methods such as those developed by Policy Lab may be valuable to encourage and support policymakers in developing methods based on involvement rather than the outsourcing of specialist advice.

6.5.1.2 *Building a picture around the impact of a policy idea*

The study showed a need for skills within policy teams to synthesise a combination of macro and micro scale evidence and to balance internal and external impact perspectives in order to build a multifaceted and evidence-based picture of a policy idea's impact. The participants' experiences of using micro scale evidence from external impact perspectives – such as prototyping policy ideas and video-documentation of user experience – highlight a particularly strong focus in current practices on the impact that policy ideas may have on the organisation/operating of government. Whilst participants aim to advise ministers on the impact of policy ideas through a balanced use of macro and micro scale evidence from internal and external perspectives, participants highlighted challenges in doing so when the different types of knowledge are at tension with each other.

There is an opportunity for Design methods to respond to a particular identified need: by enabling policy teams to explore tensions between different types of knowledge as part of policy idea development; This could contribute to balanced policy decision-making rather than creating barriers.

6.5.1.3 Exploration in policy idea development

The Study made clear how policy idea development processes may have limited room for using explorative methods, and how the responsibilities of different aspects of the process are spread out across different members of government. Participants emphasised that idea development is not a process taking place solely within the policy team, and they indicated a significant focus on delivering a policy that limits impact on other existing policies.

Participant 04 made clear that it is common when addressing policy issues, for these to be split into different strands of work. According to P04, once these strands of work are initiated, policy teams focus on their own process, and it is likely there are few moments in which different policy teams meet (Figure 6.15).

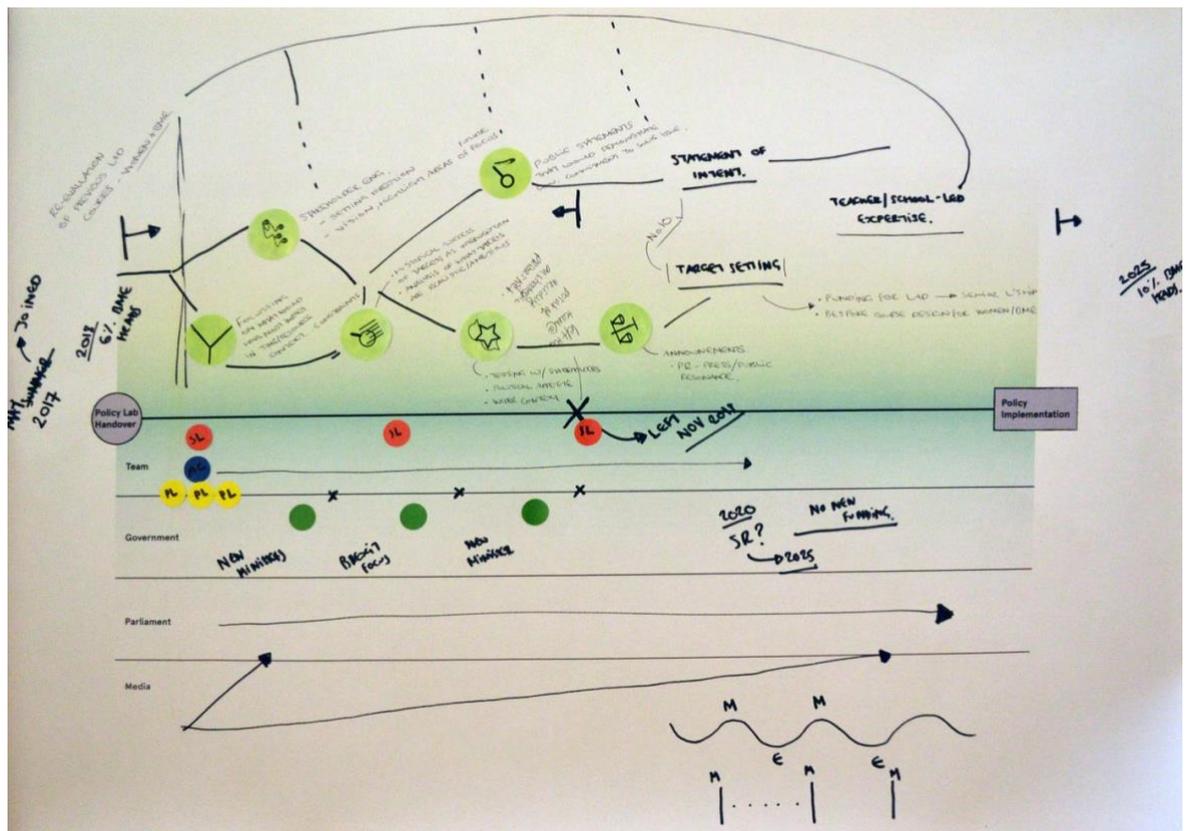


Figure 6.15 Example of different strands of work in a policy design process. In visualising the process of his project, P03 highlights a splitting up of the project in strands at the start of a project. These different strands, according to him, lose connection as team seem focused on completing their own deadlines. P03: "I think government is very good at; there has to be 5 strands of this project, rather than thinking

about this massively broadly.” These strands “more or less, there is a bit of a point where they come together, but very quickly split up again. [...] One of the reasons for that is how you structure your team, you have someone working on this project and that project.” From then on it is “pretty straight forward, people are working on their targets, [...] ‘this one’, (draws a line) there is like a separate team and they are never involved fully, so that is more of a dotted line probably. Every now and then they are about ‘of what is happening on this project?’, but their eyes are on ‘where do we need to be in 18 months, in 18 months I have to get this money out of the door’.”

Projects that take a more exploratory approach to policy idea development are likely to address an unknown to government. In the case of such policy projects, criteria for the approval of policy idea development processes appear to change, making these processes appear to be open to the integration of Design-oriented methods. In this context, Design-oriented methods are not to serve as approaches to policy problem-solving, but more as a way for government to demonstrate or highlight Government’s vision or areas of (future) focus in a policy domain.

6.5.1.4 Iteration in policy idea development

The study showed that procedural structures – through which policy teams document and communicate their processes to senior leadership and ministers – influence idea development processes and may create barriers to taking iterative approaches. According to the participants, the existing structures appear to prioritise decisiveness in policy idea development. This because policy teams are expected to provide detailed articulation of a policy idea early on in the process and to focus on a singular policy idea as an important milestone to achieve.

Overall, there appears to be a need for an increased appreciation of a wide range of aspects to policy idea development as these structures may not support policy teams in several aspects of their preferred practices. Participants articulated amongst other things, a need for a structure that allows for increasing the level of detail throughout the documentation process, that facilitates referring back to policy briefs in order to determine next steps, and encourages iteration – for example – through reconsidering assumptions and decisions already made.

Design methodologies for documenting policy idea development processes, such as the one discussed by HMRC’s P05a-d, may present an opportunity for government to

redesign some of their structures in order to better facilitate policy teams in policy idea development processes.

Overall, the Study with policymakers made me question the prevailing idea that Design brings a human-centred perspective into policy design processes. Participants shared that their experiences with Design-oriented methods had made them aware of how and when to 'stop and reflect' on their process, unpick assumptions, and reconsider aspects. These skills of a reflective practice appeared to be more influential than Design's ability to bring the 'human voice' into policymaker's design processes.

Rather than adopting a perspective themselves, the interviews made clear that policy teams need to negotiate between the different perspectives in order to come to a policy recommendation. Participants described their generalist approach and made clear their responsibility to bring together several perspectives on a policy idea.

Essential to their role as policymaker is their ability and skill to negotiate not only a range of perspectives, policy teams need to balance bureaucratic processes and policy idea development in order to achieve consensus between Policy and Design-oriented perspectives on decision-making.

Informed by the experience accounts of policymakers, I claim that the human-centred skills from Design are unlikely to be of value in their practices, as these motivate a specific perspective. Instead, the reflective practices utilised in Design-oriented methods are more likely to support policy teams in their generalist approaches. This is because they enable policymakers to recognise their agency in the process of negotiating evidence-based and organizational perspectives. Although whilst facilitating reflection allows policymakers to stay close to the policy design brief, there also a challenge for Design to align these practices with the apparent Government facilitated focus on moving the policy design process forward.

6.6 Conclusion

I designed this third Study to gain insight into how policy teams develop policy ideas, in order to better understand the role that design research may have in evidence and decision-making practices of policy design. Through a series of nine semi-structured interviews with 15 participants, I identified different layers in policy idea development,

highlighting particular roles for external teams to provide policy teams with specialist advice and a focus on investigating the impact of a policy idea internal to government. The participants appeared to be motivated to integrate evidence types that report on smaller scale studies (such as user research) and to bringing in perspectives on the impact of policy ideas external to government.

Policy teams experience challenges when balancing different forms of evidence, especially when these contradict each other. Whilst policy teams are responsible for policy idea development, they depend on external approval in order to move their process into the next stage. These approval structures prescribe how policy idea development processes need to be documented and communicated, restricting the freedom with which policy teams can develop their idea for policy.

The study led me to identify several opportunities for Design to contribute to policy idea development. When policy design processes address a policy challenge with an 'unknown' to government, this opens up space for policy teams to take more explorative approaches to their process which may integrate unconventional methods. It appears that parts of government are responding to challenges presented by current bureaucratic structures, aiming to improve these in such ways that the administrative bureaucracy may change how policy teams develop their policy ideas throughout the process.

Part 3: Discussion

Chapter 7 Discussion

In this Chapter, I discuss the findings from my three studies and synthesise insights across them, outlining the key contributions of this thesis. Central to my argument is the observation that the use of Design methods in UK policy design introduces *more* than a human-centred perspective. I discuss what the value of Design practices may be when operating, like policy teams, at the nexus of evidence and decision-making. Throughout the Chapter, I unpick how the findings of the thesis build on, challenge and expand the existing *Design for Policy* discourse and consequently bridge Policy and Design perspectives.

In Section 7.1, I reflect on the role of the designer as an expert Policy Advisor. In this role, designers are likely to be positioned outside the core policy team and function alongside other analysis teams that policy teams have consulted during a policy design process. However, in order to prove their value to policy teams, I argue that designers need to find ways to document and communicate their processes and findings according to the needs of policy teams. As such, I reaffirm that, as an expert Policy Advisor on human-centred policy design, designers may be able to focus on iterative and co-creative prototyping practices to generate insight on policy ideas. But, in order for their perspective to be considered by policy teams, designers need to acknowledge the role of their agency in developing human-centred perspectives on policy ideas.

In Section 7.2, I discuss a role for designers as experts on explorative policy design practices. Design-oriented approaches appear to respond to limitations of EBPM when needing to explore issues that are likely to disrupt existing policies. Whilst in these projects designers and policy teams may be permitted to take an unconventional Design-oriented path in some policy projects, I identify an opportunity for designers to become involved in the bureaucracy to solidify their position within government. When designers aim to prove their methods as a valuable alternative to EBPM they need to be legitimised within the administrative organisation in order to support policy teams in using Design-oriented approaches to explorative policy design processes.

In Section 7.3, I discuss that a key role of Design in policy design has been how Design methods, tools and practices introduce more reflective practices. I consider the use of reflection in the Design-oriented methods developed by Policy Lab and their implicit impact on the practices of policymakers. I argue that rather than making policymakers more empathic and human-centred, these methods predominantly equip policymakers with new forms of reflective practices. I identify that there is a great opportunity for designers to make this an explicit contribution of the designer *mindset* to policy and advocate for the utilisation of Design-oriented methods to support policymakers in the use of reflection as part of their professional practices. Though, I foresee that when the need for reflection is left unanchored in the administrative and organisational structures of government, these processes are unlikely to play a significant role in the design of policy.

7.1 Designers as human-centred specialist advisors

In this Section, I argue that when designers aim to contribute human-centred evidence generated from their own projects, this may best be done in the role of a Policy Advisor. I argue this since the human-centred perspective will be one amongst a “*mixed bag of competing needs*” (Clarke and Craft, 2019) that policy teams have to consider when preparing their policy advice. Positioned outside of the policy team, Policy Advisors are consulted to provide policy teams with specialist analysis. Whilst this positions designers outside of the policy team, it may allow them to become Government’s human-centred policy design experts. As policy teams operate as generalist professionals that work at the nexus of evidence and decision-making, I argue it is essential that designers make explicit their agency in developing their human-centred perspectives that inform policy teams on policy ideas. Thus, whilst I see value in designers being embedded in Government in order to allow policymakers to have easy access to human-centred policy design advice, I challenge the idea of the policy designer being a human-centred alternative to the generalist policymaker.

As discussed in Chapter 2, the literature on *Design for Policy* has envisioned Design-oriented alternatives to current policymaking practices (Mulgan, 2014; Bason, 2009; Bason and Carstensen, 2014; Bailey and Lloyd, 2016, Van Buuren et al, 2020). In these visions, Design would transform policy design into a human-centred practice, relying on

the understanding of citizens and citizen experiences to inform decisions on the design of policy (Mintron and Luetjens, 2016; Bason, 2009; Mulgan, 2014; Kimbell and Bailey, 2017; Villa Alvarez et al, 2019; Hermus et al, 2020). From an organisational perspective, designers critiqued the role of bureaucratic systems in government, arguing for approaches to policymaking that span the different horizontal and vertical structures of government, breaking through departmental silos and flattening decision-making hierarchies (Christiansen and Bunt, 2014; Mintron and Luetjens, 2016, Bason, 2006; Blomkamp, 2020). These visions combined suggest the need for radical change in how policy should be made, in which ultimate changes result in policy design becoming a participatory practice in which citizens have equal power in the policy decision-making process to those in and of Government (Bailey and Lloyd, 2016; Kimbell and Bailey, 2017).

In my first Study (Chapter 4), participating policy informers highlighted that whilst human-centred evidence brings a valuable perspective when collating evidence, they argue that it cannot be used as the sole perspective to inform policymaking. Policy issues have a great amount of complexity to them that goes beyond just the impact a policy may have on citizens - such as the sustainable and economic impact of a policy as well as the ability of government to implement it at scale and fit it within the pre-existing network of nested policies. These reflections echo the critique on the radical revisioning of policy design by designers, as they argue that current practices to policy design should not be replaced with one that is purely human-centred.

As discussed in Chapter 2 (Section 2.2.2.1), researchers from both Policy and Design perspectives have argued that taking a purely human-centred perspective on policy is too simple-minded and shows a lack of understanding of the constraints of government (Clarke and Craft, 2019; Bailey and Lloyd, 2016; Kimbell and Bailey, 2017; Peters, 2020; McGann et al, 2018). The arguments here are that the logistics of implementing organisational change in UK Government requires the consideration of the change at scale (e.g., the resources that are required to conduct user tests on policy prototypes may not be available), that it is impossible only to consider a human-centred perspective when such decisions are anticipated to have a detrimental impact on other policies, or that policies require contentious decision-making that may need to limit the individual

freedom of citizens (Clarke and Craft, 2019; Mortati, 2019; Bailey and Lloyd, 2016; Kimbell and Bailey, 2017).

Nonetheless, across all three studies participants shared the belief that human-centred perspectives should be considered more actively during policy design processes. For example, in Study 3, policymaker participants reflected on their use of ethnographic and user testing videos as a valuable way to bring human-centred perspectives into different stages of policy design processes. According to the participants, it allowed policy teams and decision-makers to get an idea of the policy in action or give a better understanding of the citizens that the policy is likely to affect. Though, as policy informers participating in Study 1 highlighted, professionals working in policy design face challenges to fit human-centred knowledge in with the current ways to inform policy. It became clear that human-centred knowledge tends to be small scale and of qualitative nature and, as such, is in tension with the ways in which evidence is constructed in dominant EBPM approaches.

There are other perceived limitations to using human-centredness as the sole perspective to design policy from. For example, observations made during Study 2 highlighted that human-centred knowledge may sometimes be difficult to gather when policy issues do not have clear target groups (e.g., as was the case during the training session for the department of international trade and the project on autonomous vessels). The participant reflections from Study 3 emphasised that human-centred knowledge may only become of relevance once it has become clear that a policy idea is viable and feasible within the constraints of government. In other words, the generation of insight from a human-centred perspective is likely to take place once the design phase is over and the policymaking process is moved into the implementation phase. It may therefore be unsurprising that many of government's Design-oriented professionals appear to be working at the very end of a policymaking process.

Even when policymakers aim to be informed by human-centred policy advice, Study 3 made clear that policy teams need to bring together evidence from a range of perspectives when determining the viability and feasibility of a policy idea. Consequently, designers may position themselves as one of a number of external

analysis teams that were described by policymaker participants in Study 3. The reflections of the policymaker participants on the external teams they consulted for detailed and specialist impact analysis suggest that there is an opportunity for designers to take on the role of expert advisors.

According to participant accounts from Study 3, the external teams conduct an analysis in their field of expertise, without much involvement from the policy team. As such, informing policy teams on the impact of policy ideas on citizens, designers could conduct their specific Design-oriented research into the user experience of a policy idea. This may create more methodological freedom for designers in how they conduct their expert analysis, creating space for prototyping, usertesting and iterative practices to analyse the anticipated impact of a policy from a human-centred perspective (Kimbell and Bailey, 2017; Bailey and Lloyd, 2016; Villa Alvarez et al, 2019; Bason, 2009; Van Buuren et al, 2020).³¹

As shown in Study 1, and reaffirmed in Study 2 and 3, of essence here is the ability of the specialist Policy Advisor to document and communicate the outcomes of their analysis in ways that are ready for adoption into the policy document. Referring to the notion of policy informing as *boundary work* (Hoppe, 2010), policy informers emphasised the need for designers to translate between the practices and knowledge of design research and their relevance to policy: If designers seek to inform policy, they should aim to do so according to the expectations of the targeted policy readership. In order for human-centred policy design perspectives to be considered during the designing of policy - like the contributions of think tanks, analysis teams and other policy informers - designers need to develop methods for sharing their research practices and outcomes in ways that fit the needs of the policy team. Only then may designers increase their chance of informing policy design whilst keeping true to Design's particular practices. In Section 7.3, I will discuss how designers are contributing their reflective practices to policy design. Next, however, I discuss another potential for designers as experts in policy design, reaffirming ideas around the contribution of future-oriented Design methods to addressing policy challenges.

³¹ A remaining concern for future work that explores these opportunities, nonetheless, is the extent to which being a specialist Policy Advisor allows designers to overcome the systematic biases and barriers that exist within Government to 'trusting' the small-scale and sometimes ambiguous evidence from human-centred research.

7.2 Designers as speculation experts in addressing disruptive policy issues

As described in Chapter 2, researchers have argued how Design is well-equipped to generate insight on possible futures (Gaver, 2012; Hermus et al, 2020; Forlizzi, Zimmerman and Evenson, 2008). Whilst these practices may not present the ‘*hard facts*’ derived from historic data that fit evidence standards of EBPM practices, the production of future scenarios are seen by designers as a way to acknowledge the future-oriented nature of policymaking (Siodmok, 2014a; Kimbell, 2015; Bason, 2014). Informed by findings from the three studies, in this Section, I argue that there is indeed an opportunity for designers to use their future-oriented methods in policymaking practices. I unpick how Design may present alternative approaches to policy design when the policy issue addressed is anticipated to disrupt existing policy structures, or when a framework of policies to build on, learn from or to extend, is lacking. I emphasise that these may, nonetheless, only present themselves when it is understood how Design-oriented approaches “*relate to other developments in policy design*”. (McGann et al., 2018, p249)

Through Study 1 and 3, it became clear that policymakers rely heavily on professionals external to their team to inform them about the evidence on the policy issue. Policymaker participant P07a (Study 3) reflected that, in the policy design process, those working for policy teams take “*a generalist policy approach*” to the policy issue (P07a). As discussed in Section 7.1, an important role of policy teams is bringing a range of knowledge together and turn this into a policy advice for ministers and other decision-makers in UK Government. The majority of the policymaker participants from Study 3 described how their team went through such a process of getting expert analysis on the policy idea that had resulted from their collaboration with Policy Lab. The project in which policy designers and policymakers collaborated to explore the future of maritime policy, describe in Study 2, stood out from this. Unlike the other projects, the outcomes of the Design-oriented process did not move into the traditional analysis but appeared to be moved into the implementation phase straight afterwards. Whilst this is in line with researchers who have stated that PSI-labs tend to operate

outside of hierarchies and decision-making traditions in government (Vaz and Prendeville, 2019; Peters, 2020), this 'short-cut' to the implementation phase seems uncommon given the accounts of the policy informers and policymakers in Studies 1 and 3. Similarly to Study 1 and 3, the literature highlighted a significant need for policy teams to adhere to prescribed practices of EBPM. Given their technical role in which they are subject to the constraints to government, as well as a supposed loyalty to the traditions of government (Mortati, 2019; Bailey and Kimbell, 2017; Clarke and Craft, 2019; Bailey and Lloyd, 2016; Peters, 2020) there seems little opportunity for an alternative approach to a policy design process.

Nonetheless, the strategic and explorative nature of the project into autonomous maritime vessels resulted in a process in which the Design-oriented outcomes did not "collide" with the "institutional culture" of government (Bailey and Lloyd, 2016b, p16). Where participants from Study 1 and 3 reflected on how their human-centred evidence did seem to fit, prototypes of policy ideas were likely to be misunderstood or deemed inconsiderate of other policies. In contrast, the maritime strategy report recommended an experiment to sail an unmanned vessel across to France whilst being exempt from existing policies during the length of the experiment. Despite its use of scenario-based methods, the use of future-oriented methods in this project appeared to be considered more appropriate to anticipate the impact of autonomous maritime vessels on policy than the conventional evidence-based practices in UK Government.

What appeared was a collaborative approach between designers and policymakers in which they shared the role to, as Ovink (editor of the book *Design and Politics*) - states, "give shape to objectives, make clear what is possible and place designs in a political context. The confrontation between their [Design and Policy] narratives help[ed] to clarify challenges and make questions more specific." (Ovink, 2009, p336) Where the policy team focused on navigating the network of policies to get exemption for the experiment, designers focused on facilitating the process through which future-oriented scenarios could be developed. As such, I argue that whilst Design, as Clarke and Craft argue, does not present a wholesale alternative to existing policy design practices, I elaborate this argument by specifying that there are shortcomings to EBPM to which the future-oriented approaches of Design respond. The opportunity for designers is to promote "[D]esign as exploration," detaching it from its human-centred priority and

focus on developing strategic policy design futures (Vaz and Prendeville, 2019; Van Buuren et al, 2020).

A challenge for designers who wish to contribute to policymaking and policy design with generative, future-oriented and experimental Design methods may lay in knowing whether there are alternative procedures in place to properly facilitate and manage processes of such nature. Study 1 and 3 emphasised that policy teams need to deliver their work in particular formats. In Study 1, this showed through participants' reflections on how human-centred and future-oriented knowledge would need to fit in with the standards of EBPM to ensure that policy teams may include their advice in the policy document. Study 3 surfaced the role of approval structures and assessment procedures that determined whether policy team were allowed to proceed to a next step in their policy design processes.

What the studies did not foreground was when and by whom permission was granted to take an alternative approach to the policy design process. As became clear from the literature, decision-making is structured in vertical hierarchies, and when deviating from the standard practice there is need for institutional recognition to do so (Mortati, 2019; Vaz and Prendeville, 2019; Bailey and Lloyd, 2016).

When policy teams are permitted to take different approaches to policy design (in other words, alternative to EBPM) there may still be a need for similar structures and procedures in order to be understood as a legitimate alternative by UK Government. As such, there is an opportunity here for further research into whether the procedures for alternative approaches exist, and if so, whether they allow for the practices of Design to be used in exploring the process. When such organisational systems are not (yet) in place, it may be a valuable opportunity for designers take on an expert role in setting up these bureaucracies. Through this, Design may eventually present an alternative approach to policymaking when EBPM practices falls short, and which is seen as legitimate by UK Government.

In the final Section of this Chapter (7.3), I discuss how designers may contribute to the support of policy teams in choosing the most appropriate approach to addressing a policy issue. I argue that designers should seek collaboration with the existing

administrative structures of government, rather than “*problematizing*” them (Bailey and Lloyd, 2016). A way forward for the *Design for Policy* discourse may, therefore, be to focus on becoming part of the bureaucratic machine of government in order to progress the professional practices in policy design.

7.3 Contributing Design to facilitate reflective practice

Section 7.1 focused on how Design may contribute to evidence practices in policy design in which I highlighted the potential of designers to act as specialist Policy Advisors on human-centred policy design. In Section 7.2, I argued that designers may facilitate an alternative approach to explorative policy design processes when evidence-based practices are likely to fall short and are limited in their ability to inform decisions. Thus far, I have not focused on the processes that take place at the nexus of evidence and decision-making. Through each of the Studies it became clear that it is in this space that policy teams are positioned, and where their central responsibility lies. In this Section, therefore, I focus on the contributions of Design to the policy design practices that bring together evidence and decision-making. Key to the insight is the contribution of Design as a reflective practice. In the following Sections (7.3.1.1 to 7.3.1.3), I discuss how reflection might strengthen policymakers’ professional practices, articulating the different levels of reflection I expect to be of value to policy design processes.

Schön’s notion of the *reflective practitioner* describes the ability to learn about one’s own practice through being aware of what influences one’s decision-making, and to reflect on these influences in order to critically assess the validity of a choice (Schön, 1983). Since the publications by Schön throughout the 1980s and 1990s, the ideas of reflective practice have had a fundamental impact on the field of Design (Gardien et al, 2014; Hummels and Frens, 2008; Sengers et al, 2005; McDonnell, Lloyd and Valkenburg, 2004; Lloyd, 2019). It has strengthened designers in their ability to deliberately put their ‘Design intuition’ at work in-action and on-action as construct an interpretation of events and consider how they contribute to shaping those (McDonnell, Lloyd and Valkenburg, 2004, p513).

Nonetheless, despite Policy Lab’s facilitation of reflection using Design methods (as observed and experienced during Study 2), when asking policymakers about the

contribution of Design to their practice during Study 3, on several occasions, they referred to Design as a *mindset*, caveating they were not able to give concrete descriptions of what they meant by it. By bringing these findings from Studies 2 and 3 together, I argue that what was described as the *designer mindset* actually described the characteristics of the designer as *reflective practitioner*.

Following Senger's and colleague's definition of 'reflection', I believe it to be a critical practice, aimed at "*bringing unconscious aspects of experience to conscious awareness, thereby making them available for conscious choice*". (Sengers et al, 2005, p50)

In my own training as designer at the Eindhoven University of Technology, central to my learning was to articulate reflectively which knowledge had informed my design decisions, and to acknowledge my agency as a designer rather than putting this down as my creative intuition (Hummels and Frens, 2009). Without explicitly linking the designer mindset to the reflective practices of Design, I argue, its misconception as an inexplicable phenomenon likely continues to exist. Whilst it has been argued that the ambiguity around the meaning of Design terms such as *designer mindset* and *design thinking* are "*part of [their] strength, allowing [them] to be the right thing at the right time*" (Zimmerman, Forlizzi and Evenson, 2007, p494), I found this to be detrimental to the contributions of Design to Policy. This as it is a challenge to legitimise an inexplicable *mindset* in an organisational culture that prioritises rational decision-making.

7.3.1.1 ***Reflection-in-action to bridge intuition and rational decision-making***

The literature reviewed in Chapter 2 highlighted a focus on the differences between Policy and Design: The "*rational decision-making*" of Policy versus the creative "*intuition*" of Design (Kimbell, 2015; Bason, 2010); the abductive thinking of Design as "*clearly distinct*" from the deductive approaches in Policy (Van Buuren et al, 2020); and the "*logic administrative organisation*" of policymakers "*clashing*" with the "*sensibilities*" of the designer (Bason, 2014). In this light, the *Design for Policy* discourse focuses on the tensions around evidence practices and how to challenge "*established hierarchies or bureaucratic categories*" that determine decision-making practices in policy design (Hermus et al, 2020, p24; Bailey and Lloyd, 2016; Vaz and Prendeville, 2019). The conclusion being, evidence-based and Design-oriented approaches supposedly "*sit uncomfortably together*" (McGann et al, 2018) due to their "*conflicting*

beliefs” on how to design policy (Bailey and Lloyd, 2016a; Kimbell, 2015; McGann, 2018; Bason, 2010). The findings from the Studies, on the other hand, painted a more nuanced picture of the situation highlighting similar needs in Design and Policy approaches to policy design. In this Section, I argue how Design practices informed by Schön’s notion of *‘reflection-in-action’* may support the bridging of intuitive and rational approaches to decision-making.

Whilst tools such as *‘hopes and fears’* and *‘personas’* were allegedly introduced to elicit empathy amongst policymakers for the target group of their policy challenge, they seemed mostly to provide a resource that aimed at supporting policymakers in how to reflect-in-action. Though, as it was not made explicit to policymakers that policy designers aimed to facilitate reflective thinking, this remained implicit and for policymakers themselves to discover as a valuable contribution to their practice. This may influence the effectiveness of such activities. As Sengers et al highlight, there is value not to *“wait for [reflection] to occur, but by intervening to create or stimulate these reflection triggers”* (Sengers et al, 2005, p53). Whilst I agree that activities such as *‘hopes and fears’* and *‘personas’* successfully create stimulus for reflection, they may be leaning towards Sengers et al hesitancy of facilitating moments of orchestrated reflection: *“We want to avoid, however, a literal codification of reflection-inaction, [...] that suggest ‘now would be a good time to think about what is happening...’.”* (Ibid.) In their 2005 paper, the HCI-academics describe a framework for reflective design (building on Schön’s notion of reflective practice), arguing for revealing unconscious biases should be a key part of technology design. (Ibid.)

Looking from this perspective at the approach used by Policy Lab in facilitating *evidence safaris*, this method may be more successful as a reflective activity that can find its way into policymakers’ day-to-day practices. Whilst reflection-in-action is still deliberately facilitated in this exercise, the reflection is triggered by the evidence in the room. As such, rather than solely facilitating reflection, it seems to enable policymakers to, what Sengers et al describe as *‘move from knowing-in-action to reflection-in-action’*:

[F]rom the observation that reflection is often triggered by an element of surprise, where someone moves from knowing-in-action, operating within the status quo, to [move into] reflection-in-action, puzzling out what to do next or why the status quo has been disrupted. (Sengers et al, 2005, p53)

What Sengers and colleagues suggest that reflection may be understood as a sort of intuitive response to an external stimulus. ‘Knowing-in-action’, on the other hand, seems to align with the positivist idea of rational-problem solving. In this light, the way in which evidence safaris are set up – with evidence cards spread out across the room to which policymakers are asked to respond by writing their thoughts down on post-its – appear to facilitate a deliberate moving from ‘knowing-in-action’ into ‘reflection-in-action’ in ways that enable the intuition of ‘fuzzy and messy realities’ and rational decision-making of ‘hard facts’ to strengthen each other rather than be at tension in policy design processes.

7.3.1.2 ***Reflection-on-action to conduct a frame analysis of policy design processes***

Several participants in Study 3 described how their collaboration with policy designers had led them to stay more on top of the brief (P02), to stop and take stock during the process by going back to the report they delivered together with UK Policy Lab (P04a and P04b) or to unpick assumptions and categories that would otherwise have been used uncritically (P07a and P07b). The inward-looking character of this learning appears to be in contrast with the idea that Design methods bring a human-centred perspective into policy design (Vaz and Prendeville, 2019). These Design-oriented methods by Policy Lab appear, instead, to equip the participating policymakers with pragmatic skills on how to use reflection-on-action as part of their policy design process (Hermus et al, 2020, p23).

Whilst the participants from Study 3 are not the same policymakers as the participants of Policy Lab’s research (Study 2), Policy Lab’s design of the Government consultation mapping tool is a valuable example of Policy Lab’s use of Design practice to facilitate explicit and collaborative reflection-on-action amongst policymakers. Moving away from creating examples of alternative approaches to policy design processes and, rather than to reflect on a particular policy problem, Policy Lab asked policymakers to partake in a critical analysis of their professional practices and experiences.

Policy Lab’s interviews with policymakers show strong similarities with Schön’s idea of *frame analysis*, as the “*study of the ways in which practitioners [policymakers] frame problems and roles.*” (Schön, 1983, p309) As a type of reflective research, through

making visible the differences between policymakers' processes in visual representation, Policy Lab makes policymakers "*aware of and criticise their tacit frames.*" (Ibid.) As Schön argues:

When practitioners are unaware of their frames for roles or problems, they do not experience the need to choose among them. They do not attend to the ways in which they construct the reality in which they function; for them, it is simply the given reality. [...] When a practitioner becomes aware of his frames, he also becomes aware of the possibility of alternative ways of framing the reality of his practice. (Schön, 1983, p310)

As policymakers reflect on what they are seeing in front of them – for example, a designer's interpretation of a government consultation process – by comparing this to their own experience of going through such processes. Policymakers' response to, for example, Policy Lab's consultation mapping tool not only allows policymakers to reflect on their frames, but simultaneously generate what Schön calls 'backtalk' for policy designers: "*When designers make a proposal, the users and the environment "talk back."* It is the designers' openness to reframing the situation and adjusting their mindset in response to this backtalk." (Gardien et al, 2014, p124)

Learning from policymaker's responses to the consultation mapping, allows policy designers to better understand where and when Design may have a valuable impact on policy design processes. It allows policy designers to reflect-in-action about their role in policy design processes, whilst facilitating reflection-in-action for policymakers. In doing so, as Sengers et al state, reflective designers may support the bridging of theoretical and practical ideas of, in this case, policy design:

Responding to back talk requires reflective practitioners to be willing to change the frame of a problem space. In this effort, reflection-in-action provides a ground for uniting theory and practice; whereas theory presents a view of the world in general principles and abstract problem spaces, practice involves both building within these generalities and breaking them down. (Sengers et al, 2005, p52)

In effect, with Policy Lab's research into policymakers' practices, they are conducting what Dorst calls 'Frame Creation' (Dorst, 2015). He defines a 'frame' as "*a new approach to a problem*" (Ibid., p26). Creating frames aims at developing an "*understanding of the*

underlying dynamics of a problem situation that enables them to create new approaches to the original problem” (Ibid., p26).

Rather than creating frames for specific policy problems, Policy Lab’s aim of the mapping tools such as the government consultation tool is to create frames for policy design practices which are open to policymakers’ critique. Informed by policymakers’ responses to designers’ understanding of policy design practices, Policy Lab is able to develop a Design perspective of these practices which simultaneously show an understanding of policymakers’ experienced challenges and opportunities.

This, to me, suggests an approach more likely to achieve change in the organisation of policy design processes than using individual policy cases to illustrate the value and effectiveness of using Design methods in policy design. In other words, rather than proposing how Design methods might radically change the ways in which policy is designed – which supposedly was the initial belief in the Design for Policy discourse – using frame creation allows designers to come to a better understanding of the issues in existing policy design practices and from there identify how these practices can be transformed with the integration of Design methods.

7.3.1.3 *Designing reflective practice into policy design processes*

Although potentially a valuable contribution to supporting policymakers in being aware and critical of their processes, the findings from the three Studies made clear that the organisation of policy design processes in UK Government allows little room to deviate from standard practices. Per example, several policymaker participants from Study 3 reflected on the need to receive approval from more senior civil servants and ministers in order to progress their policy design processes. The focus on navigating the bureaucratic processes of policy design too came through in the literature with scholars and commentators highlighting that a significant part of the process focuses on and is formatted by the internal organisation of government (Hallsworth et al, 2011; Hermus et al 2020; Bailey and Lloyd, 2016a). The findings, as such, reaffirm the views of, amongst others Bailey and Lloyd, Clarke and Craft, and Mortati, that an understanding of government is essential when aiming to contribute to policy design practices. I argue that, in order to anchor reflective practices in the role of policymakers, designers should not only seek to better understand the organisational structures that exist within UK

Government but become involved in designing them. This may be the most effective way to strengthen policy design frames. Where Sengers and colleagues argue that *“reflective design integrates, but does not replace”* (Sengers et al, 2005, p53) existing approaches to technology design, I argue the same for reflective practices in policy design: As Design is unlikely to overhaul existing practices in policy design, designers should aim to introduce new practices that can strengthen those that already exist.

As policy teams need *“to combine evidence, values, and political judgement”* when designing policy, they go through a process of interpretation that could be supported by reflective practices (Cairney, 2016, p1). The potential of these reflective practices of Design may be particularly relevant given that Policy appears to be moving away from the *“naively rationalist”* position which *“presumes an all too linear relationship between evidence and policymaking”* (McGann et al 2018, p263).

A promising example of how designers may contribute to the designing of bureaucratic processes is HMRC’s design Methodology discussed in Study 3, in which policy teams are asked to report on their design process with increasing detail. Rather than requiring detailed descriptions from policy teams on how an idea would respond to a policy issue from the start of policy processes (as problematised by Participant 08 in Study 3), HMRC’s documentation method may help overcome issues of vigorous decision-making that Participant 07a (Study 3) described to be common in policy design. As policy teams increase their level of detail of a policy idea throughout the process as their research into the policy problem continues, it may give them the space to introduce their reflective practice to the documentation of their processes. This as, according to Sengers et al, *“reflective design, like reflection-in-action, advocates practicing research and design concomitantly, and not only as separate disciplines.”* (Sengers et al, 2005, p53)

7.4 Conclusion

In this Chapter, I have synthesised the findings of my studies. I have argued that in order to bring Policy and Design approaches to policy design closer together, designers need to accept the importance of bureaucratic structures in policy design practices and aim, instead, to contribute to the design of these administrative processes. Looking beyond the contribution of human-centred and future-oriented perspectives, I highlight the

reflective practices of designers that have been implicitly utilised as a contribution to policy design and that have influenced policymakers' processes. These practices concretise the inexplainable designer *mindset* and make explicit the processes that take place as designers move between knowledge and decision-making. I advocate that in order to enable policymakers to develop their reflective practices further, these should be incorporated with the bureaucratic structures that aim to organise the complex practice of policymaking.

Chapter 8 Conclusion

I introduced this thesis by highlighting my interest in decision-making processes in Design practices, and motivations to explore the opportunities of Design as a strategic practice. Building on my understanding of the designer's *social turn*, I identified how this has led designers to explore non-Design domains to understand how to address social issues. This sense making provided impetus for my doctoral project.

Whilst many of the initiatives for social innovation through Design take a *ground-up* approach to eliciting Design-oriented change, I took a particular interest in the possibility of Design to influence *top-down*, public agendas of Government. Focusing on the UK context, I investigated *policy design* practices in policymaking that cover processes of problem identification through to solution proposition (excluding policy incentive and policy implementation).

8.1 Understanding the role of Design in supporting reflective practice in evidence-based policymaking

After conducting background research into the *Design for Policy* discourse, I came to see a distance between the discourses from Design and Policy. The Design discourse appeared to focus on calling for radical change and advocated for the human-centred and future-oriented practices of Design to become part of policymakers' practices. In parallel, Policy scholars and commentators - whilst highlighting a renewed interest in *policy design* approaches - appeared to focus predominantly on articulating the constraints in policymaking that are likely to limit the potential of Design for policy practices. More recently, the works of amongst others Mortati (2019), Bailey and Lloyd (2016a), and Vaz and Prendeville (2019) called for a more nuanced Design perspective on policy design. One that embeds an understanding of Government practices in its claims of what Design may contribute. Informed by this appeal for a balanced view of *Design for Policy*, I identified the need for research into the *practical act* of policymaking in order to understand how the current practices of policy design compare to the visions of Design.

Through an applied, qualitative programme of doctoral work that involved observation of and collaboration with professionals working in and around policy design, I aimed to gather their reflections on experiences of working at different parts of the policy ecosystem. Through my studies I aimed to come to understand how professionals experienced the use of Design-oriented methods to contribute to the designing of policy. I chose to focus my investigation on UK Government due to the attention that Design receives in their policy design practices, a decision which informed the central question to my doctoral research:

What is the role of Design in policymaking and policy design practices in UK Government?

My key objective was to bridge Policy and Design perspectives on how to design policy, and to identify overlaps and differences in their approaches to policy design. Leading from this, I focused my literature review of the *Design for Policy* discourse on bringing the Policy and Design parts of the literary discussion into one conversation.

The synthesis of the literature made clear that where Design addresses critiques around vertical hierarchies, siloed approaches, and the need for human-centred perspectives (Mintron and Luetjens 2016; Kimbell and Bailey, 2017; Bason, 2016), Policy researchers highlight the responsibilities of contentious decision-making, traditions of evidence-based policymaking and challenges of organising the complexity of policy processes in Government (Clarke and Craft, 2019; Peters, 2020). Whilst these discussions seem to present opposing views on how to design policy, they share an emphasis on tensions in evidence and decision-making practices in policy design. It is considered arguably naïve to understand the EBPM framework in terms of assuming a linear relationship between evidence and decision-making (Cairney, 2016; McGann et al, 2018); doing so arguably ignores the influence of values, political judgment and organisational cultures (Bailey and Lloyd, 2016a; Peters, 2020; Mortati, 2019). Similarly, notions of evidence have been critically discussed as their current understanding may prioritise a limited range of perspectives to inform a policy issue (Cairney, Oliver and Wellstead, 2016; Cairney and Oliver, 2017).

Taking an emergent and interpretive approach to investigating my central research questions, I was not only an active and reflexive actor within each of the research studies but also between each of the studies. Consequently, insights gained through each of the Studies informed the conceptual focus of the next. Therefore, conducting the policy informers Study informed a shift in conceptual focus for the policy designers Study, and subsequently policymakers Study:

- For Study 1, I set out to better understand the boundary practices between Design research and policymaking through talking to policy informers, asking them about their experience of making their knowledge fit for the purpose of policy informing.
- The research shifted conceptually for Study 2 as the insights from Study 1 informed the need to better understand the impact of Design on central government's policy design processes, and how Design knowledge might become integrated in policymakers' practices.
- Study 3, I set out to better understanding whether policymakers might see policy design processes as processes of Design and explore how their experiences of working with Design methods (through collaboration with Policy Lab) have impacted to their policy design practices.

This approach and the insights gained through the literature review informed three additional research questions to focus the research:

1. *How might the knowledge and outcomes of design research influence policymaking processes?*
2. *How might the practices, methods and skills of Design be integrated into policymaking practices?*
3. *How might policymakers understand policy design processes as processes of Design?*

8.2 Addressing aims and objectives

In order to address these research questions at the intersection of Design and Policy (Figure 8.1 – Level 1), I decided to position the doctoral research at the nexus of evidence and decision-making practices in policy design (Figure 8.1 – Level 2). I aimed to

understand the nature of evidence and decision-making practices in UK Government, whilst taking into account the impact of these circumstances on the potential contributions of Design. Informed by the alleged influences of people, politics and power on EBPM (Cairney, Oliver and Wellstead, 2017; Cairney and Oliver, 2017). I made it my goal to gain an understanding of the *practical act* of designing policy and the role of Design-oriented methods, outcomes and knowledge (Figure 8.1 – Level 3). Focusing on evidence and decision-making practices, I aimed to understand if and how the Policy and Design approaches to policy design intersect in practice, in order to identify opportunities and challenges for Design to contribute to the professional practices of policy design.

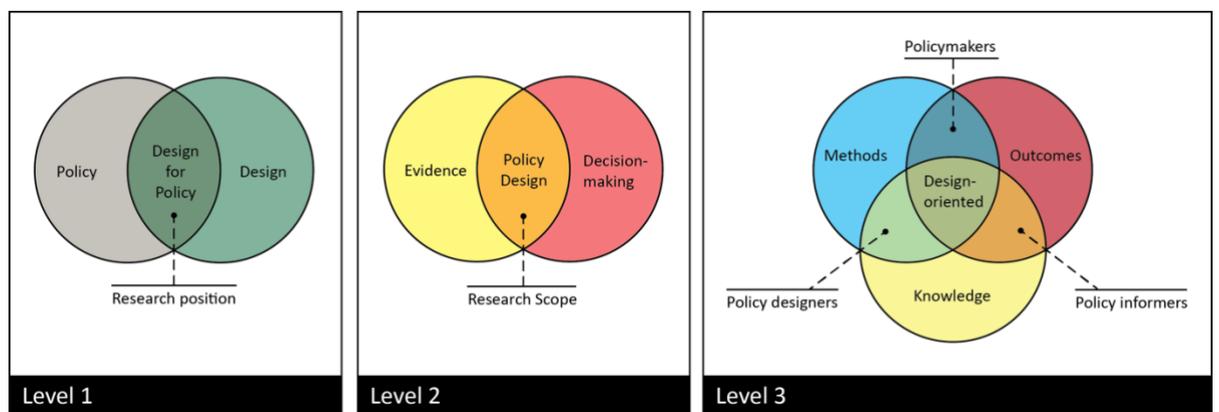


Figure 8.1 Overview different layers to this doctoral research and thesis account.

I addressed these aims and objectives by:

- Focussing each of the studies on questions that address issues and practices of evidence and decision-making in policy design.
- Collaborating with professionals working at different parts of the policy ecosystem to gather their perspectives on and experiences of working in and around policy design.
- In order to make sure their reflective accounts were within the scope of my research, I recruited participants who had experiences working with Design-oriented methods, knowledge and/or outcomes. Building on their experiences of the two approaches to policy design, their reflections allowed me to identify overlaps and differences between Policy and Design approaches to policy evidence and decision-making practices in design.

In Studies 1, 2, and 3, I therefore collaborated with policy informers, policy designers and policymakers respectively. Together with the participants, I investigated research questions around evidence and decision-making practices in policy design and identified the impact of these practices on the potential of *Design for Policy*.

Each of these different groups of professionals experienced policy design practices from a different part of the policy ecosystem, and their experiences of working with Design-oriented methods also differed. This allowed me to develop an understanding of the current role and challenges of Design-oriented practices in policy design.

The interview study conducted with policy informers addressed: *How might the knowledge and outcomes of design research influence policymaking processes?*

As these professionals are positioned to translate between research and policy advice, their study responses allowed me to find out how Design-oriented knowledge and outcomes may be of use in evidence and decision-making practices in policy design.

The participant observation conducted in collaboration with policy designers focused on the question: *How might the practices, methods and skills of Design be integrated into policymaking practices?*

Engaging professionals at UK Policy Lab, the study illuminated alternative, Design-oriented approaches to policy design; my observations, experiences and reflections with policy designers enabled me to gain empirical insight into the role of Design-oriented knowledge and methods used in evidence and decision-making practices in policy design.

The graphic elicitation study conducted in collaboration with policymakers addressed: *How might policymakers understand policy design processes as processes of Design?*

Positioned at the centre of evidence and decision-making practices in policy design, policymakers are responsible for balancing the design of policy with the needs and operating of Government. Capturing their experience-based reflections of working with Design-oriented methods and outcomes, I came to understand how these practices may contribute to evidence and decision-making practices in policy design.

8.3 Key findings

I now turn to summarise the key findings from each study conducted for my doctoral project.

Study 1:

- a) The findings from the thematic analysis highlighted challenges and opportunities when informing policy with knowledge generated through human-centred and future-oriented practices; findings furthermore showed that the types of knowledge that come from Design research are likely to always be contested in evidence-based policymaking.
- b) When policy issues lack a clear policy history, or past and present trends are disrupted, Design methods could contribute to futuring practices in policymaking. Designers could better support policymakers by providing methods for structured scenario development, and by helping those working in and around policymaking to develop futuring practices that are rigorous and non-Partisan.
- c) Overall, Study 1 highlighted how policy informers mediate an interactive dialogue between the different practices and needs of policymakers and design researchers. It became clear that policy informers carefully manage their communication style depending on how, when and with whom knowledge is shared. As such, when aiming to inform policy, the knowledge and outcomes of design research need to be contextualised and made relevant in the world of policymaking.

Study 2:

- a) Policy Lab was found to take a multifaceted approach for contributing to policy design practices. In their work with policymakers, policy designers mobilised reflection in implicit and explicit ways.
- b) The tools and methods developed for the open policymaking toolkit (OPMT) enable policymakers to reflect on and discern differences in perspectives amongst participants. Through the facilitation of project-based or training workshops, these Design-oriented methods were introduced to policymakers to surface their

individual perspectives whilst simultaneously encouraging them to place decision-making and evidence practices in a shared conversational space.

- c) Using Design-oriented methods to mobilise reflection was found to enable Policy Lab to create a conversational space between Policy- and Design-oriented understanding of policy design. Mapping overviews of complex processes and eliciting reflection on different layers of these processes, policymakers were invited by Policy Lab to express their personal experiences of and perspectives on policy design practices. The research projects resulted in visual resources that inform about common practices of policymakers. I observed how these resources aim to support both policymakers and policy designers in identifying when and how Design-oriented methods may contribute to policy design practices.

Study 3:

- a) Participants described their generalist approach and emphasised their responsibility to bring together several perspectives on a policy idea. Whilst motivated to integrate evidence types that report on smaller scale studies (such as user research) and contributing perspectives on the impact of policy ideas external to government, Policy teams expressed needing to negotiate between the different Policy- and Design-oriented perspectives to come to a policy recommendation. I found that Policy teams furthermore need to balance bureaucratic processes and policy idea development in order to achieve consensus between Policy and Design-oriented perspectives on decision-making.
- b) Arguably, whilst policy teams are responsible for policy idea development, they depend extensively on two external influencers. External teams provide policy teams with specialist advice on the impact of a policy idea internal to government, and these teams take on a specific perspective with regards to the policy idea. I found that Policy teams often require external approval in order to move their process into the next stage. The approval structures prescribe how policy idea development processes need to be documented and communicated, influencing the freedom with which policy teams can develop their idea for policy.

- c) Finally, I found that reflective practices utilized in Design-oriented methods are likely to support Policy teams in their generalist approaches to policy design. Reflective skills appeared to be more influential than the dominant idea that Design brings a human-centred perspective into policy design processes; reflective Design practice supported policymakers in recognising their agency in and perspective on the process of negotiating evidence-based and organisational perspectives.

8.4 Contributions

The insights gained through my doctoral work build on, challenge and expand the existing *Design for Policy* discourse in four key ways, offering contributions to knowledge and practices the intersection of Policy- and Design-oriented approaches to policy design.

- 1) Whilst there is value for having designers embedded in government to allow policymakers easy access to human-centred policy design advice, I challenge the idea of the policy designer being a human-centred alternative to the generalist policymaker. When designers seek to inform policy with human-centred advice, they should aim to do so according to the expectations of the targeted policy readership. In order for human-centred policy design perspectives to be considered during the designing of policy, designers need to develop methods for sharing their research practices and outcomes in ways that fit the needs of the policy team. Only then may designers increase their chance of informing policy design whilst keeping true to Design's particular practices. As such, I reaffirm that, as expert Policy Advisors on human-centred policy design, designers may be able to focus on iterative and co-creative prototyping practices to generate insight into policy ideas. But, in order for their perspective to be considered by policy teams, designers need to acknowledge the role of their agency in developing human-centred perspectives on policy ideas.
- 2) I have identified shortcomings to EBPM practices to which the future-oriented approaches of Design respond. Design and Design research may present alternative approaches to policy design when the policy issue addressed is anticipated to disrupt existing policy structures, or when a framework of policies to build on, learn from or extend is lacking. In this context, designers can take on the role of experts

on explorative policy design practices permitted to take unconventional Design-oriented paths in policy projects. The opportunity for designers is to promote “*design as exploration*,” detaching it from its human-centred priority, and focus on developing strategic policy design futures (Vaz and Prendeville, 2019; Van Buuren et al, 2020). When designers aim to prove their methods as a valuable alternative to EBPM, they need to be legitimised within the administrative organisation in order to support policy teams in using Design-oriented approaches to explorative policy design processes. As such, designers may need to become involved in the bureaucracy to solidify their position within government.

- 3) In order to understand the role of Design in practices of policymaking and policy design, one should look beyond its human-centred premise, and instead speak to strategic practices of Design. Then, the characteristics of the designer as *reflective practitioner*, concretely describe the inexplicable *designer mindset*. Without explicitly linking these reflective practices to the role of Design, its misconception as an inexplicable phenomenon likely continues to exist. Legitimising an inexplicable approach to policy design is likely to be a challenge in a culture that prioritises rational decision-making. This would be detrimental to the contributions of *Design for Policy*. Instead, when made explicit and subsequently incorporated with the bureaucratic structures that aim to organise the complex practice of policymaking, reflective practices can support policymakers in making explicit the processes that take place as they move between knowledge and decision-making.
- 4) Overall, I reaffirm the views of amongst others Bailey and Lloyd, Clarke and Craft, and Mortati, that an understanding of government practices and cultures is essential when designers aim to contribute to policy design practices (Bailey and Lloyd, 2017; Clarke and Craft, 2019; Mortati, 2019). In order to bring Policy and Design approaches to policy design closer together, designers should not only seek to better understand the organisational and bureaucratic structures that exist within UK Government, but also to become involved in designing them. I have contributed three specific roles of Design for policy design which are positioned alongside and within the practices of policymakers and identified that these require

acknowledgement in Government administration and bureaucracy structures to reach their potential.

8.5 Limitations to the research

Drawing conclusions from a diverse data set, varying in participant group and data collection method, was unsurprisingly challenging. Due to the qualitative nature of the research, the findings and insights are furthermore ungeneralisable. It is therefore important to understand the limitations of this research.

8.5.1 Scope of the research

The insights I gained into the ways in which policy is designed are specific to the UK national government. As such, my findings into the (potential) role of Design in policy design should not assumed to be alike to those that may be gained from researching the ways in which more local levels of UK government or the central governments of other nations operate.

Throughout the research, I have only been able to interact with a very small set of policymakers, whom are in turn part of a very big institution. Similarly, I have spoken with a small number of policy informers who are part of a large ecosystem and observed and partaken in a small team of policy designers that work to influence government. Small sample sets are common practice in qualitative research, and it is generally accepted that insights gathered should not be considered representative of all professionals working as policy officials. The extent to which my insights are therefore applicable across the whole of the UK government is unknown. The insights of this research may instead be used as hypothetical questions guiding research into different parts of government, different governments, at different times and places, and conducted by different researchers.

Altogether, the findings from this research are unlikely to be generalisable across the whole UK government nor will it be generalisable across different traditions of policy designing - a limitation that is an expected consequence of my research design and qualitative approach.

8.5.2 Data collection

I relied on participants' accounts of their experiences for most of my data collection, and I chose to assume these are truthful accounts and experiences of their own. There were no means to identify whether participants were genuinely reflective when sharing their experiential accounts with me, or whether these were influenced by a desire to be compliant to the practices and ideas of how policy is ought to be designed within UK government. There may also have been a wish to be agreeable with the interviewer (me) with the intention to ensure that I would be able to draw the conclusions they hope I would as the result of this research.

8.5.2.1 *Study 1*

Limitation to Study 1 was the conceptual focus with which my doctoral research started. The initial focus laid on how Design methods might support the development of policy that responds to the sociotechnical impact of emerging technologies. This focus was informed by my understanding of Design which is grounded in the field of Human-Computer Interaction, and therefore naturally technology focused. I chose to interview academics in the field of HCI that had experience informing policy rather than Design researchers outside of the HCI community. The findings from the Study highlighted this limitation and made me shift my conceptual focus to the use of Design in government, which meant I moved away from the emphasis on the Design community in HCI.

Unlike some other academic disciplines, few HCI researchers have experience informing policy. This meant that there were only a small number of academics that I could recruit for the study which may have varying experiences in policy informing. In contrast, an extensive network of think tanks exists, which may have different approaches to informing policy. Consequently, the insights gained may not apply across think tanks that work to inform policy. Furthermore, the policy informing ecosystem consists of more actors than the HCI researchers and think tank employees that I interviewed for Study 1. Each of these actors may have developed their own specific practices of how they believe to best inform policy. As I set out to research the situated and contextual experience of professionals working to inform policy, this limitation is an expected consequence of my research design that is qualitative, constructive and interpretative.

8.5.2.2 *Study 2*

The findings from the study at Policy Lab are limited to the activities that I have been able to participate in and observe. There are more types of work, methods, and practices explored and used by the members of Policy Lab. This was caused by multiple practical factors: Amongst others, I attended Policy Lab for a limited amount of time limiting me in the range of projects that I was able to observe, I partook in one particular project for the majority of my time and focus, and I was unable to join ethnographic fieldwork and other projects due to a lack of government clearance. Consequently, I have not been able to gain insight into, for example, the ways in which Policy Lab designed their ideation sessions, and whether these may be using reflection as a means to support policymakers and stakeholders in exploring policy ideas. Or, come to better understand the role of others working at Policy Lab, such as video ethnographers, and how these professionals contribute Design-oriented practices to policy design through the deliverables they produce.

An academic limitation to this work is that the Study conducted at Policy Lab was my first participant observation. Being in a continuous dual role, I had to develop my practice as I was conducting the study. This meant that I had to find my ways in how and when to dedicate time to being primarily participant or observer and come to understand the nuances of switching between these roles. Reflecting on my research practice in conversation with my supervisors, I came to realise that when I am dedicating time as observer, this does not mean I stop being a participant and vice versa: both roles continue to exist in parallel even when one of the two is prioritised.

Learning about how to best collect data during a participant observation, with the support of my supervisors, I improved my skills in ethnographic note taking during my time at Policy Lab. This enabled me, later during the placement, to look back at the earlier weeks and note aspects of policy designers' practice that I had not picked up on as clearly at the time. Overall, I believe this is a natural limitation to conducting a participant observation as an early career academic: It is a data collection method that strongly relies on one's experience of using the method, and in turn, one is only able to develop skill in it through practice. This is a consequence of taking on an active role as *research instrument*.

8.5.2.3 *Study 3*

Setting out to conduct this research to understand the specific, contextual and situated of Design in policymaking, I decided to specifically recruit policymakers that had situated experience working Design methods in policy design. Either through working with Policy Lab or through gathering experiences of working with Design in other ways. Interviewing policymakers that had no experience using Design in policy design would not allow me to collect data grounded in the relevant context.

Accessing policymakers to partake in my research was challenging, due to an inability to recruit participants directly. I relied on policymakers suggested and approached by UK Policy Lab. As a result, the policymakers recruited for Study 3 are likely to be positively biased in their observations, experiences, reflections and ideas on the role of Design in policymaking at UK government.

A limitation of this Study is the graphic elicitation tool is informed by a specific understanding of Design and the assumptions made about how policy design works. For example, the visual metaphors that offered participants an implicit framework of the different phases and steps in a Design process were based on my understanding of Design as a reflective and transformative practice (see Section 1.2). Other designers may deliberately follow a Design engineering process, strongly influencing the ways in which they understand the different phases and step that are central to a design process. Though, as my placement at Policy Lab had shown me that Policy Lab strongly focused on eliciting reflective practice through their Design methods, the participants' experience of Design was likely to be similar to my understanding of Design.

As I do not have practical experience of working as a policymaker, and particularly in policy design as a policymaker, my knowledge of their practices was informed by what I had come to know through theoretical literature and anecdotal knowledge through my placement at Policy Lab (Study 2) and the interviews with policy informers (Study 1). It was therefore important to make clear to the participating policymakers that the model I had created for the interview was based on assumptions of a policy design process at UK Government, and they were therefore free to make any changes to the template to

make it accurate to their experiences. Any chances the participants decided to make allowed me to question the assumptions I had made about policy design both during the interviews as well as in the data analysis.

8.5.3 Data analysis

As mentioned in Section 8.5.2.1, being an early career researcher, I developed my systematic analysis skills as I conducted the doctoral research. This meant that early on the research I had less experience of how to best conduct a qualitative analysis. To compensate for my lack of practice, I sought support from my supervisors and a colleague (Chris Elsdon) whom with I would have ongoing discussions whilst analysing the data. As I developed skills in conducting thematic analysis, which I chose to use continuously, I was able to become more practiced and independent in my process. I also continued to have ongoing discussions with my supervisors and peer PhD students to deepen my understanding of the data.

In taking an interpretive approach to my research, my background in and understanding of Design influenced my perspective in this research. It influenced the questions I asked to gather as well as analyse the data. To mitigate the risk of leaving my perspective implicit, I dedicated Section 1.2 to setting out my motivation for this thesis by explaining my journey in Design. In this Section, I point out what I understand to be essential aspects to Design practice (such as it being a reflective practice).

Furthermore, I have included deliberate reflexivity throughout each of the Studies to remain aware of the influence my background and understanding of Design has on how collect and interpret data.

I developed an understanding of policy design practices through the accounts of others. My knowledge of the process is gathered through my academic reading into the fields of Design and Policy, and reflections from professionals working in the field. Even when conducting the participant observation at UK Policy Lab, I did not work as a policy maker myself. (Nor did I work as a policymaker prior to it.) As discussed in the data collection limitations of Study 3 (Section 8.5.2.3), allowing participating policymakers to make changes to the framework this allowed me to reflect on these assumptions when

analysing the data collected in Study 3 and inform the insights I derived from the Study and the doctoral research.

8.6 Final thoughts and directions for future work

In the *Design for Policy* discourse, designers thus far emphasised their role in policymaking and policy design to contributing future-oriented and human-centred perspectives and the contribution of generative, creative and iterative processes. Recently, a shift in this narrative has become visible. Scholars and commentators from both Policy and Design perspective are redirecting the focus of the discourse to developing a more balanced view of the Design vision for policy by embedding it in an understanding of cultures, processes and constraints of Government. As such, the discourse is moving towards identifying the role of Design at the Intersection of Policy and Design approaches to policy design. From this perspective, I investigated the role of Design in policymaking and policy design practices in UK Government.

Overall, I conclude that designers will not be policymakers, nor will policymakers become designers. Nonetheless, the Design discipline can contribute expert roles and diffuse practices to policy design.

As human-centred policy design experts positioned outside of the policy team, designers can contribute their knowledge and outcomes of design research as specialist policy advice. In this role, designers conduct specialist analysis as input for policymaker's generalist synthesis processes.

As future-oriented policy design experts, designers can facilitate alternative approaches to policy design processes. In this role, designers operate alongside policy teams when these address disruptive policy issues and are in the of speculative and exploratory approaches.

However, the most noticeable role of Design in policy design is its reflective practice. Designers have utilised reflection-in-practice, in their methods, skills and outcomes, to support policymakers move back and forth between problem definition and solution proposition. The process of reflecting in practice is omnipresent in the practices of policy

designers and in policymaker's practices of negotiating between Design- and Policy-oriented perspectives. It supports policymakers in recognising their perspective on and agency in the process of designing policy. Predominantly left implicit but valued as the *design mindset*, this expertise within Design is most likely to contribute to policy design at scale. Embedded in the generalist synthesis approaches of policy teams and bureaucratic procedures of Government, reflection can become key in policy design practices to operate at the nexus of evidence and decision-making.

I now turn to the limitations to my doctoral research and consider directions for future work. My recommendations focus on exploring how Design can become part of the organisation of Government. I emphasise that this could be done in ways that improve rather than reject the idea of bureaucracy in policy design practices.

- a) There is a rich opportunity for the Design discipline to develop a set of strategic skills that enables designers to share their research outcomes and knowledge in ways that are understood by policymakers, especially as methods from Design are unlikely to align with those familiar to policymakers. This requires a deepened understanding of policymaking practices and policy makers' communication styles, which I was unable to address in this research. When designers aim to take on the role of policy informer – for example, as specialist Policy Advisor - there is a need to develop clear formats for the presentation of Design knowledge and outcomes for a policy audience. As part of this inquiry, designers may choose to explore how Design can be positioned in a mediating role between researchers and policymakers.
- b) As the literature highlighted, decision-making is structured in vertical hierarchies, and when deviating from the standard practice there is a need for institutional recognition to do so. Therefore, further research is required to understand whether or not bureaucratic and administrative procedures exist for taking alternative approaches to conduct exploratory policy design processes. When they exist, there is benefit in understanding if these allow for the use of Design-oriented approaches. In both cases, there is a subsequent opportunity for designers to expand my thesis account and investigate how they might contribute to the design of these

bureaucracies to ensure Design-oriented approaches are a legitimised alternatives to EBPM approaches for policy design.

- c) In this thesis, I highlighted the use of reflection in Design-oriented approaches to policy design and made clear through a study with policymakers that these practices are most likely to have a lasting impact on their professional practices. As such, there is a great opportunity to investigate how reflective practices might be concretised in the process of policy design. Whilst the studies gave hints of how reflective practices are concretised by policymakers, there was not the opportunity to venture into this with more detail. In order to leverage the contribution that Design could make to Policy, there is a need to gain insight into the formats that these practices may take as they become part of the procedures of Government. Designers may choose to explore to what end reflection is most useful in policy design, to understand if formalised reflection practices allow policymakers to be guided by the design of policy rather than the procedures of Government, and how this may improve the communication between policymakers and decision-makers. Furthermore, given UK Government's interest in how policymaking practices can be opened up, there may be interest too, in exploring how reflection may be formalised as a collaborative process in which the emphasis lies on consensus-based reasoning, and supports a co-evolving of problem definition and solution proposition.

In closing, looking at this thesis as the finished product of my doctoral research, I appreciate the contribution it has made to my experience and skillset as a designer-researcher. In the pursuit of finding answers to the central question, I have been exposed to and informed by some great minds throughout the process. The insights that I generated throughout the Studies have confirmed my understanding of Design as a multifaceted practice and simultaneously strengthened my belief that its reflective, iterative and transformative practices deserve to be made explicit in order to be transferable and become embedded in the many traditionally non-Design disciplines. I hope, in future projects and new contexts, to support this process and continue to use Design-oriented methods to bring together different disciplines and perspectives.

References

- Anon (n.d.) *#Blockchain4EU - Gigbliss - YouTube*. [Online] [online]. Available from: <https://www.youtube.com/watch?v=vTA1ZDFINil> (Accessed 5 May 2021).
- Anon (2017) *Sarah Chaytor - Bridging the gap between researchers and policymakers*.
- Anon (n.d.) *Think Tanks and Civil Societies Program*. [Online] [online]. Available from: <https://www.gotothinktank.com> (Accessed 29 May 2021).
- Anon (n.d.) *What Works Network*. [Online] [online]. Available from: <https://www.gov.uk/guidance/what-works-network> (Accessed 11 June 2021).
- Atkinson, P. & Hammersley, M. (1983) 'Ethnography and Participant Observation', in *Strategies of Qualitative Inquiry*. Thousand Oaks. [Online]. Sage. p.
- Bada, M., Sasse, A.M. & Nurse, J.R.C. (2019) Cyber Security Awareness Campaigns: Why do they fail to change behaviour? *arXiv:1901.02672 [cs]*.
- Baertl Helguero, A. (2018) *De-constructing credibility Factors that affect a think tank's credibility*.
- Bagnoli, A. (2009) Beyond the standard interview: the use of graphic elicitation and arts-based methods. *Qualitative Research*. 9 (5), 547–570.
- Bailey, J. & Lloyd, P. (2016a) 'A view from the other side: perspectives on an emergent design culture in Whitehall', in [Online]. May 2016 London: Linköping University Electronic Press. p. 13.
- Bailey, J. & Lloyd, P. (2016b) 'The introduction of design to policymaking: Policy Lab and the UK government', in *Proceedings of DRS 2016, Design Research Society 50th Anniversary Conference*. [Online]. 20 June 2016 Design Research Society. pp. 3619–1635.
- Bason, C. (2016a) *Christian Bason*. [Online] [online]. Available from: <https://danskdesigncenter.dk/en/christian-bason> (Accessed 29 May 2021).
- Bason, C. (2016b) 'Introduction: The Design for Policy Nexus', in *Design for Policy*. Design for Social Responsibility series. [Online]. Routledge. pp. 1–8.
- Bederson, B.B., Lazar, J., Johnson, J., Hochheiser, H. & Karat, C.-M. (2006) 'Workshop on SIGCHI public policy', in *CHI '06 Extended Abstracts on Human Factors in Computing Systems*. CHI EA '06. [Online]. 21 April 2006 New York, NY, USA: Association for Computing Machinery. pp. 1655–1657.
- Bennett, S. & Cutler, N. (2019) *Lab Long Read: Policy Consultations - Part 1: Mapping the process - Policy Lab*.

- Braun, V. & Clarke, V. (2020) One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*. 0 (0), 1–25.
- Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3 (2), 77–101.
- Bravington, A. & King, N. (2019) Putting graphic elicitation into practice: tools and typologies for the use of participant-led diagrams in qualitative research interviews. *Qualitative Research*. 19 (5), 506–523.
- Brown, T. & Katz, B. (2011) Change by Design. *Journal of Product Innovation Management*. 28 (3), 381–383.
- Bruce, R. (2018) *Innovation in Democracy - Policy Lab*.
- Buchanan, R. (2008) Introduction: Design and Organizational Change. *Design Issues*. 24 (1), 2–9.
- Burnham, J. & Pyper, R. (2008) Google-Books-ID: vBldBQAAQBAJ. *Britain's Modernised Civil Service*. Contemporary Political Studies. Macmillan International Higher Education.
- Burr, V. (2015) Google-Books-ID: zX0GCAAQBAJ. *Social Constructionism*. Routledge.
- van Buuren, A., Lewis, J.M., Guy Peters, B. & Voorberg, W. (2020) Improving public policy and administration: exploring the potential of design. *Policy & Politics*. 48 (1), 3–19.
- Cabinet Office, Gov.uk (n.d.) About us. Available from: <https://www.gov.uk/government/organisations/cabinet-office/about> (Accessed 18 March 2022)
- Cairney, P. (2016) Google-Books-ID: S9L7CwAAQBAJ. *The Politics of Evidence-Based Policy Making*. Springer.
- Cairney, P. & Oliver, K. (2017) Evidence-based policymaking is not like evidence-based medicine, so how far should you go to bridge the divide between evidence and policy? *Health Research Policy and Systems*. 15 (1), 35.
- Cairney, P., Oliver, K. & Wellstead, A. (2016) To Bridge the Divide between Evidence and Policy: Reduce Ambiguity as Much as Uncertainty. *Public Administration Review*. 76 (3), 399–402.
- Carroll, F. (2012) *Exploring Past Trends and Current Challenges of Human Computer Interaction (HCI) Design: What does this Mean for the Design of Virtual Learning Environments?* [Online] [online]. Available from: www.igi-global.com/chapter/content/62116 (Accessed 11 June 2021).
- Carstensen, H.V. & Bason, C. (2012) *Powering Collaborative Policy Innovation*: 1725.

- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J. & Neville, A.J. (2014) The use of triangulation in qualitative research. *Oncology Nursing Forum*. 41 (5), 545–547.
- Cautela, C., Deserti, A., Rizzo, F. & Zurlo, F. (2014) Design and Innovation: How Many Ways? *Design Issues*. 30 (1), 3–6.
- Chen, D.-S., Cheng, L.-L., Hummels, C. & Koskinen, I. (2016) Social Design: An Introduction. *Social Design*. 10 (1), 6.
- Christiansen, J. & Bunt, L. (2016) 'Innovating Public Policy: Allowing for social complexity and uncertainty in the design of public outcomes', in Christian Bason (ed.) *Design for Policy*. [Online]. Routledge. pp. 41–56.
- Clarke, A. & Craft, J. (2019) The twin faces of public sector design. *Governance*. 32 (1), 5–21.
- Cranor, L. (2016) *Lorrie Faith Cranor*. [Online] [online]. Available from: <https://www.ftc.gov/about-ftc/biographies/lorrie-faith-cranor> (Accessed 17 September 2018).
- Cross, N. (1982) Designerly ways of knowing. *Design Studies*. 3 (4), 221–227.
- Crouch, C. & Pearce, J. (2013) Google-Books-ID: k5xWDgAAQBAJ. *Doing Research in Design*. Bloomsbury Publishing.
- Currano, R. M., & Steinert, M. (2012). A framework for reflective practice in innovative design. *International Journal of Engineering Education*, 28(2), 270.
- Davis, J., Hochheiser, H., Hourcade, J.P., Johnson, J., Nathan, L. & Tsai, J. (2012) 'Occupy CHI! engaging U.S. policymakers', in *CHI '12 Extended Abstracts on Human Factors in Computing Systems*. CHI EA '12. [Online]. 5 May 2012 New York, NY, USA: Association for Computing Machinery. pp. 1139–1142.
- Denham, A. (2005) Google-Books-ID: WnWOAgAAQBAJ. *British Think-Tanks And The Climate Of Opinion*. Routledge.
- Dorey, P. (2014) Google-Books-ID: w1x9AAQBAJ. *Policy Making in Britain: An Introduction*. SAGE.
- Dorst, K. (2015). Frame creation and design in the expanded field. In *She Ji: The journal of design, economics, and innovation*. 1(1), 22-33.
- Downe, L. (2016). *The different types of design in government*. [Online] Available from: <https://designnotes.blog.gov.uk/2016/04/22/the-different-types-of-design-in-government/> (Accessed 15 March 2022)
- Drew, C. (2019) The Double Diamond: 15 years on. Design Council

- Durrant, A.C., Vines, J., Wallace, J. & Yee, J.S.R. (2017) Research Through Design: Twenty-First Century Makers and Materialities. *Design Issues*. 33 (3), 3–10.
- EU Policy Lab (n.d.) *EU Policy Lab | #Blockchain4EU: Blockchain for Industrial Transformations*. [Online] Available from: <https://blogs.ec.europa.eu/eupolicylab/blockchain4eu/> (Accessed 22 March 2022).
- EU Policy Lab (n.d.) *EU Policy Lab | Gigbliss_ #Blockchain4EU*. [Online] Available from: <https://blogs.ec.europa.eu/eupolicylab/blockchain4eu/gigbliss/> (Accessed 22 March 2022).
- EU Policy Lab (n.d.) *EU Policy Lab | About us*. [Online] Available from: <https://blogs.ec.europa.eu/eupolicylab/about-us/> (Accessed 22 March 2022).
- EUR (n.d.) *(Margot) MMJ Hermus MSc | Erasmus University Rotterdam*. [Online]. Available from: <https://www.eur.nl/people/margot-hermus> (Accessed 29 May 2021).
- Fallman, D. (2011) 'The new good: exploring the potential of philosophy of technology to contribute to human-computer interaction', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. CHI '11. [Online]. 7 May 2011 New York, NY, USA: Association for Computing Machinery. pp. 1051–1060.
- Forlizzi, J., Zimmerman, J. & Evenson, S. (2008) Crafting a Place for Interaction Design Research in HCI. *Design Issues*. 24 (3), 19–29.
- Fossey, E., Harvey, C., Mcdermott, F. & Davidson, L. (2002) Understanding and Evaluating Qualitative Research. *Australian & New Zealand Journal of Psychiatry*. 36 (6), 717–732.
- Frayling, C. (1993) *Research in art and design*. [Online]
- Fry, T. (2010) *Design as Politics*. Berg.
- Gardien, P., Djajadiningrat, T., Hummels, C., & Brombacher, A. (2014). Changing your hammer: The implications of paradigmatic innovation for design practice. *International Journal of Design*, 8(2)., pp. 119-139.
- Gaver, W. (2012) 'What Should We Expect from Research Through Design?', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. CHI '12. [Online]. 2012 New York, NY, USA: ACM. pp. 937–946.
- Gubrium, J.F. & Holstein, J.A. (2001) Google-Books-ID: N5leBAAAQBAJ. *Handbook of Interview Research: Context and Method*. SAGE Publications.
- Hallsworth, M., Parker, S. & Rutter, J. (2011) *Policy-Making in the Real World*. p.10–12.
- Head, B.W. & Alford, J. (2015) Wicked Problems: Implications for Public Policy and Management. *Administration & Society*. 47 (6), 711–739.

- Helguero, A.B. (2018) *Factors that affect a think tank's credibility*.
- Hennessy, P. (2001) Google-Books-ID: 5NItAAAACAAJ. *Whitehall*. Pimlico.
- Hermus, M., van Buuren, A. & Bekkers, V. (2020) Applying design in public administration: a literature review to explore the state of the art. *Policy & Politics*. 48 (1), 21–48.
- HM Government (2012) *The Civil Service Reform Plan*. Crown.
- Hoppe, R. (2010) 'From "knowledge use" towards "boundary work": sketch of an emerging new agenda for inquiry into science-policy interaction', in Roeland J. in 't Veld (ed.) *Knowledge Democracy: Consequences for Science, Politics, and Media*. [Online]. Berlin, Heidelberg: Springer. pp. 169–186.
- Howlett, M., Ramesh, M. & Perl, A. (2009) Google-Books-ID: 9I1zPwAACAAJ. *Studying Public Policy: Policy Cycles & Policy Subsystems*. Oxford University Press.
- Hummels, C. & Frens, J. (2009) 'The reflective transformative design process', in *CHI '09 Extended Abstracts on Human Factors in Computing Systems*. CHI EA '09. [Online]. 4 April 2009 New York, NY, USA: Association for Computing Machinery. pp. 2655–2658.
- Hummels, C., & Frens, J. (2008). Designing for the unknown: A design process for the future generation of highly interactive systems and products. In *DS 46: Proceedings of E&PDE 2008, the 10th International Conference on Engineering and Product Design Education* pp. 204-209.
- Innovatsioonitiim (n.d.) *Innovatsioonitiim*. [Online]. Available from: <https://www.riigikantselei.ee/valitsuse-too-planeerimine-ja-korraldamine/rakke-ja-ekspertruhmad/innovatsioonitiim> (Accessed 23 March 2022).
- Institute for Government (2015) Turning policy priorities into effective change on the ground. The Institute for Government
- Junginger, S. (2017) Design Research and Practice for the Public Good: A Reflection. *She Ji: The Journal of Design, Economics, and Innovation*. 3 (4), 290–302.
- Junginger, S. (2008) Product Development as a Vehicle for Organizational Change. *Design Issues*. 24 (1), 26–35.
- Kimbell, L. (2015) *Applying Design Approaches to Policy Making: Discovering Policy Lab*.
- Kimbell, L. & Bailey, J. (2017) Prototyping and the new spirit of policy-making. *CoDesign*. 13 (3), 214–226.
- Kolko, J. (2010) Abductive Thinking and Sensemaking: The Drivers of Design Synthesis. *Design Issues*. 26 (1), 15–28.

- Kwan, K.-M. & Tsang, E.W.K. (2001) Realism and constructivism in strategy research: a critical realist response to Mir and Watson. *Strategic Management Journal*. 22 (12), 1163–1168.
- Lancaster University (n.d.) *International Policy Ideas Challenge Finalist - Research Portal | Lancaster University*. [Online] [online]. Available from: [http://www.research.lancs.ac.uk/portal/en/prizes/international-policy-ideas-challenge-finalist\(d2a728b6-221f-444e-92a0-11795d7dcb8d\).html](http://www.research.lancs.ac.uk/portal/en/prizes/international-policy-ideas-challenge-finalist(d2a728b6-221f-444e-92a0-11795d7dcb8d).html) (Accessed 17 September 2018).
- Lazar, J. (2017) Let's strengthen the HCI community by taking a gap year! *Interactions*. 25 (1), 20–21.
- Lazar, J. (2015) Public policy and HCI: making an impact in the future. *Interactions* 22 (5) p.69–71.
- Lazar, J., Abascal, J., Barbosa, S., Barksdale, J., Friedman, B., Grossklags, J., Gulliksen, J., Johnson, J., McEwan, T., Martínez-Normand, L., Michalk, W., Tsai, J., Veer, G. van der, Axelson, H. von, Walldius, A., Whitney, G., Winckler, M., Wulf, V., Churchill, E.F., et al. (2016) Human–Computer Interaction and International Public Policymaking: A Framework for Understanding and Taking Future Actions. *Foundations and Trends® in Human–Computer Interaction*. 9 (2), 69–149.
- Lewis, J.M., McGann, M. & Blomkamp, E. (2020a) When design meets power: design thinking, public sector innovation and the politics of policymaking. *Policy & Politics*. 48 (1), 111–130.
- Lewis, J.M., McGann, M. & Blomkamp, E. (2020b) When design meets power: design thinking, public sector innovation and the politics of policymaking. *Policy & Politics*. 48 (1), 111–130.
- Lloyd, P. (2019). You make it and you try it out: Seeds of design discipline futures. *Design Studies*, 65, 167-181.
- Lockton, D. (n.d.) *Dan Lockton – design and imaginaries*. [Online]. Available from: <http://danlockton.com/> (Accessed 17 September 2018).
- LSHTM (n.d.) *Kathryn Oliver*. [Online] [online]. Available from: <https://www.lshtm.ac.uk/aboutus/people/oliver.kathryn> (Accessed 29 May 2021).
- Lykketoft, K. (2016) 'Designing Legitimacy: The case of a Government Innovation Lab.', in Christian Bason (ed.) *Design for Policy*. [Online]. Routledge. pp. 133–146.
- Manzini, E. (2014) Making Things Happen: Social Innovation and Design. *Design Issues*. 30 (1), 57–66.

- McDonnell, J., Lloyd, P., & Valkenburg, R. C. (2004). Developing design expertise through the construction of video stories. *Design Studies*, 25(5), pp.509-525.
- McGann, M., Blomkamp, E. & Lewis, J.M. (2018) The rise of public sector innovation labs: experiments in design thinking for policy. *Policy Sciences*. 51 (3), 249–267.
- Medvetz, T. (2015) *The Think Tank Scholar: Tom Medvetz*.
- Mendizabal, E. (2013) *An alternative to the supply, demand and intermediary model: competencies for all*.
- Mintrom, M. & Luetjens, J. (2016) Design thinking in policymaking processes: Opportunities and challenges. *Australian Journal of Public Administration*. 75 (3), 391–402.
- Mir, R. & Watson, A. (2001) Critical realism and constructivism in strategy research: toward a synthesis. *Strategic Management Journal*. 22 (12), 1169–1173.
- Mortati, M. (2019) The Nexus between Design and Policy: Strong, Weak, and Non-Design Spaces in Policy Formulation. *The Design Journal*. 22 (6), 775–792.
- Mulgan, G. (2014) *Design in Public and Social Innovation*. p.7.
- Muller, J. (2012) “What the heck is a think tank, anyway?” asks an intern. Think tanks: definition and terminology
- Nam, T. & Pardo, T.A. (2011) 'Smart city as urban innovation: focusing on management, policy, and context', in *Proceedings of the 5th International Conference on Theory and Practice of Electronic Governance*. ICEGOV '11. [Online]. 26 September 2011 New York, NY, USA: Association for Computing Machinery. pp. 185–194.
- Nathan, L.P. & Friedman, B. (2010) Interacting with policy in a political world: reflections from the voices from the Rwanda Tribunal project. *Interactions*. 17 (5), 56–59.
- O’Connor, C. & Joffe, H. (2020) Intercoder Reliability in Qualitative Research: Debates and Practical Guidelines. *International Journal of Qualitative Methods*. 191609406919899220.
- Oliver, K., Lorenc, T. & Innvær, S. (2014) New directions in evidence-based policy research: a critical analysis of the literature. *Health Research Policy and Systems*. 1234.
- Oliver, K. & Pearce, W. (2017) Three lessons from evidence-based medicine and policy: increase transparency, balance inputs and understand power. *Palgrave Communications*. 3 (1), 1–7.
- Overbeeke, K. & Hummels, C. (n.d.) 'Industrial Design', in *The encyclopedia of human-computer interaction*. 2nd edition [Online]. p.
- Ovink, H. (2009) *Design and Politics*. Vol. 1. Rotterdam: 010 Publishers.

- Peters, B.G. (2020) Designing institutions for designing policy. *Policy & Politics*. 48 (1), 131–147.
- Pezalla, A.E., Pettigrew, J. & Miller-Day, M. (2012) Researching the researcher-as-instrument: an exercise in interviewer self-reflexivity. *Qualitative Research*. 12 (2), 165–185.
- Pierce, J., Fox, S., Merrill, N., Wong, R. & DiSalvo, C. (2018) 'An Interface without A User: An Exploratory Design Study of Online Privacy Policies and Digital Legalese', in *Proceedings of the 2018 Designing Interactive Systems Conference*. DIS '18. [Online]. 8 June 2018 New York, NY, USA: Association for Computing Machinery. pp. 1345–1358.
- Policy Lab (n.d.) *About Open Policy Making - Policy Lab*. [Online] Available from: <https://openpolicy.blog.gov.uk/what-is-open-policy-making/> (Accessed 31 May 2021).
- Policy Lab (n.d.) *Open Policy Making toolkit*. [Online]. Available from: <https://www.gov.uk/guidance/open-policy-making-toolkit> (Accessed 31 May 2021).
- Policy Profession (2013) *Twelve Actions to Professionalise Policy Making: A report by the Policy Profession Board*. p.22.
- Reeve, J. (2017) *Don't bring policy and delivery closer together - make them the same thing*.
- Reeves, S. (n.d.) 'Envisioning ubiquitous computing,' in', in *In Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI), 2013*. [Online]. pp. 1573–1582.
- Rodger, S., Vines, J. & McLaughlin, J. (2016) 'Technology and the Politics of Mobility: Evidence Generation in Accessible Transport Activism', in *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. CHI '16. [Online]. 7 May 2016 New York, NY, USA: Association for Computing Machinery. pp. 2417–2429.
- Rodgers, P., & Yee, J. (Eds.). (2014). *The Routledge companion to design research*. Routledge.
- Romme, A.G.L. & Meijer, A. (2020) Applying design science in public policy and administration research. *Policy & Politics*. 48 (1), 149–165.
- Rutter, J. (2012) *Opening Up Policy Making*. p.34.
- Schön, D. (1983) *The Reflective practitioner*. New York: Basic Books.
- Sengers, P., Boehner, K., David, S., Kaye, J. (2005) Reflective design. In *In Proceedings of the 4th decennial conference on Critical computing: between sense and sensibility*. pp. 49-58.
- Siodmok, A. (2014a) Designer Policies. *The RSA Journal* (Issue) p.24–29.
- Siodmok, A. (2014b) *Welcome to the Policy Lab - Policy Lab*. [Online] Available from: <https://openpolicy.blog.gov.uk/2014/06/30/welcome-to-the-policy-lab/> (Accessed 22 March 2022).

- Siodmok, A. (2014c) *About Policy Lab* [Online] Available from:
<https://openpolicy.blog.gov.uk/about/> (Accessed 22 March 2022).
- Siodmok, A. (2017) *Mapping service design and policy design* [Online] Available from:
<https://openpolicy.blog.gov.uk/2017/09/22/designing-policy/> (Accessed 15 March 2022).
- Siodmok, A. (2020a) *Introducing a 'Government as a System' toolkit - Policy Lab.* [Online] Available from: <https://openpolicy.blog.gov.uk/2020/03/06/introducing-a-government-as-a-system-toolkit/> (Accessed 22 March 2022).
- Siodmok, A. (2020b) *Lab Long Read: Human-centred policy? Blending 'big data' and 'thick data' in national policy - Policy Lab.* [Online] [online]. Available from:
<https://openpolicy.blog.gov.uk/2020/01/17/lab-long-read-human-centred-policy-blending-big-data-and-thick-data-in-national-policy/> (Accessed 31 May 2021).
- Siodmok, A. (2019) *Looking back to look forward, what is next for design in policy? - Policy Lab.* [Online] [online]. Available from:
<https://openpolicy.blog.gov.uk/2019/12/20/looking-back-to-look-forward-what-is-next-for-design-in-policy/> (Accessed 31 May 2021).
- Sloan, A. & Bowe, B. (2014a) Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*. 48 (3), 1291–1303.
- Sloan, A. & Bowe, B. (2014b) Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*. 48 (3), 1291–1303.
- Spaa, A., Durrant, A., Elsdon, C. & Vines, J. (2019) 'Understanding the Boundaries between Policymaking and HCI', in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. [Online]. New York, NY, USA: Association for Computing Machinery. pp. 1–15.
- Stappers, P.J. & Giaccardi, E. (2017) Research through Design. *The Encyclopedia of Human-Computer Interaction*. 1–94.
- Stevens, A. (2011) Telling policy stories: An ethnographic study of the use of evidence in policy-making in the UK. *Journal of Social Policy*. 40237–256.
- Stolterman, E. (2008) *The nature of design practice and implications for interaction design research. International Journal of Design*, 2(1). pp. 55-65.

- Tan, L. (2012) *Understanding the Different Roles of the Designer in Design for Social Good. A Study of Design Methodology in DOTT 07 (Designings Of The Time 2007) Projects*. [Online]. Newcastle upon Tyne, UK: Northumbria University of Newcastle.
- Thomas, V., Remy, C., Hazas, M. & Bates, O. (2017) 'HCI and Environmental Public Policy: Opportunities for Engagement', in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. CHI '17. [Online]. 2 May 2017 New York, NY, USA: Association for Computing Machinery. pp. 6986–6992.
- UAL (2021) *Lucy Kimbell*. [Online] [online]. Available from: <https://www.arts.ac.uk/research/ual-staff-researchers/lucy-kimbell> (Accessed 29 May 2021).
- UKRI (n.d.) *Influencing UK public policy - Economic and Social Research Council*. [Online] [online]. Available from: <https://esrc.ukri.org/research/impact-toolkit/influencing-policymakers/guide-to-influencing-public-affairs/influencing-uk-public-policy/> (Accessed 13 June 2021).
- University of Sheffield (2021) *Dr Warren Pearce | Sociological Studies | The University of Sheffield*. [Online] [online]. Available from: <https://www.sheffield.ac.uk/socstudies/people/academic-staff/warren-pearce> (Accessed 29 May 2021).
- University of Stirling (n.d.) *Professor Paul Cairney | University of Stirling*. [Online] [online]. Available from: <https://www.stir.ac.uk/people/257420> (Accessed 29 May 2021).
- Vaz, F. & Prendeville, S. (2019) 'Design as an Agent for Public Policy Innovation', in *Conference Proceedings of the Academy for Design Innovation Management*. [Online]. 29 November 2019 London: . p.
- Verbeek, P.-P. (2006) Materializing Morality: Design Ethics and Technological Mediation. *Science, Technology, & Human Values*. 31 (3), 361–380.
- Villa Alvarez, D.P., Auricchio, V. & Mortati, M. (2020) Design prototyping for policymaking. *DRS Biennial Conference Series*.
- Wang, D. (2016) 'HCI policy and the smart city', in *Proceedings of British HCI 2016 Conference Fusion, Bournemouth, UK*. [Online]. BCS Learning and Development Limited. p.
- Watson, T.J. (2011) Ethnography, Reality, and Truth: The Vital Need for Studies of 'How Things Work' in Organizations and Management. *Journal of Management Studies*. 48 (1), 202–217.

- Wells, P. (n.d.) *New Labour and evidence based policy making: 1997-2007 | People Place and Policy*. 1 (1), 23.
- Wensveen, S. (2018) *Constructive design research*. Eindhoven: Technische Universiteit Eindhoven.
- Wikipedia (2021a) Evidence-based policy. Wikipedia
- Wikipedia (2021b) Evidence-based practice. Wikipedia
- Will, V., Eadie, D. & MacAskill, S. (1996) Projective and enabling techniques explored. *Marketing Intelligence & Planning*. 14 (6), 38–43.
- Williams, R. & Edge, D. (1996) The social shaping of technology. *Research Policy*. 25 (6), 865–899.
- Wright, P., Blythe, M. & McCarthy, J. (2006) 'User Experience and the Idea of Design in HCI', in Stephen W. Gilroy & Michael D. Harrison (eds.) *Interactive Systems. Design, Specification, and Verification*. Lecture Notes in Computer Science. [Online]. 2006 Berlin, Heidelberg: Springer. pp. 1–14.
- Yee, J., Jefferies, E., & Tan, L. (2014). Brave new worlds: Transitions in design practice. In *Proceedings of the fourth Service Design and Service Innovation Conference*. pp. 67-78.
- Zimmerman, J. & Forlizzi, J. (2014) 'Research Through Design in HCI', in Judith S. Olson & Wendy A. Kellogg (eds.) *Ways of Knowing in HCI*. [Online]. New York, NY: Springer. pp. 167–189.
- Zimmerman, J., Forlizzi, J. & Evenson, S. (2007) 'Research through design as a method for interaction design research in HCI', in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems - CHI '07*. [Online]. 2007 San Jose, California, USA: ACM Press. pp. 493–502.
- Zurlo, F. & Cautela, C. (2014) Design Strategies in Different Narrative Frames. *Design Issues*. 30 (1), 19–35.

Appendices

Appendix A Information Sheet and Consent Form Study

1

Working at the Boundaries of HCI and Public Policy – A qualitative study into think tanks, policy making and human-computer interaction

Project Information Sheet

Anne Spaa (lead researcher)

With the following information sheet, I inform you about the intention of the research, the practical details, the methods and tools used to collect data, the type of data collection, and the research questions motivating the research.

The project

This three-year research project explores the ways design approaches could inform public policy on topics related to emerging technologies. At this current very early stage of the project, I want to gain an in-depth understanding of the current efforts undertaken by academic technology policy researchers to inform public policy.

What do I hope to learn?

Through a series of interviews and one group interview, I aim to gain insight into the challenges and opportunities that these researchers have experienced when engaging with the public policy domain. You are one of the professionals I hope to interview, as your organisation researches the field of think tanks as well as engages with academics to understand the landscape of policy development.

Together with you I will reflect on your experiences engaging with the policy landscape and the (experimental) approaches, tools, methods and techniques you have used during these engagements.

What types of data will I collect and how long will it take?

In this strand of my research, I will be interviewing academic technology policy researchers that have experience of and engaging with policy makers and policy making.

One of these interviews will be conducted with you. This interview will take 40 to 60 minutes and will be conducted in person or via video conferencing (e.g., Skype) depending on your availability.

The group interview will take up to 1,5 hours and will be conducted in person or via video conferencing (e.g., Skype) depending on your availability.

With your informed consent, I will record audio on an analogue and a digital device during the individual and group interview.

What will I do with the data?

I will store the data in three places. On a local drive on a laptop and on two external hard drives that will be kept secured. I will secure the folders on each of these devices with a password which is only known by me, the lead researcher.

As stated according to the University's guidelines on records retention, I will keep the data secure until the completion of the doctoral studies plus three years.

Where and how will my data be kept?

The data will be stored in three places. On a local drive on a laptop, on one drive (cloud based) and on an external hard drive that will be kept at home. The folders on each of these devices will be secured with a password which is only known by the lead researcher.

As stated according to the University's guidelines on records retention, the data will be kept secure until the completion of the doctoral studies plus three years.

What are the benefits for getting involved in this project?

By participating in this project, I aim to contribute to field that investigates how research can inform policy on technology topics in which you currently are or have been involved.

What if you change your mind?

You have the right to withdraw from this research at any stage. If you wish to do so, please contact the lead researcher Anne Spaa. I will remove your data when requested.

You do not have to give an explanation to why you wish to withdraw.

If you have further questions who can you contact?

You can contact me, the lead researcher Anne Spaa (anne.spaa@northumbria.ac.uk, +44775452914), my supervisor John Vines (john.vines@northumbria.ac.uk), or our Research Ethics Director for Northumbria School of Design, Sheng-feng Qin (sheng-feng.qin@northumbria.ac.uk)

Thank you for participating in my research,
Anne Spaa

Consent Form

Anne Spaa (lead researcher)

By signing this form, you confirm you have understood and agree with the statements below and wish to take part in the project.

Please make sure to sign each of the statements with your initial when confirm consent.

		Initials
1	I have read the 'Project Information' sheet and I understand the purpose of the project.	
2	I have been given the chance to ask questions about the project and these have been answered to my satisfaction.	
3	I understand that I can withdraw at any time during the experiment.	
4	I understand that I may request my data is withdrawn from the project after the experiment is complete. However, I also understand that there will come a point where it will no longer be possible to remove my data, for example once statistical analysis has been conducted.	
5	I understand that my details will be kept confidential, securely stored within the university, and referred to using a pseudonym and not my real name. No information that will allow me to be identified will appear in any printed or digital material in relation to the project.	
6	I agree to the University of Northumbria at Newcastle processing this information about me. I understand that this information will be used only for the purpose set out in the information sheet supplied to me, and my consent is conditional upon the University complying with its duties and obligations under the Data Protection Act 1998.	
7	I have read the 'Project Information' page and I understand the purpose of the project.	

Participant's Name:

Participant's Signature:

Researcher's name:

Researcher's signature:

Date:

Appendix B Recruitment Emails Study 1

Dear [insert name],

I am a PhD student at Northumbria University (Newcastle, UK), based in the School of Design. I am conducting design research on how Think Tanks aim to influence public policy on emerging technology. I am looking for professionals working at Think Tanks and other organisations in the landscape of Public Policy making and informing, interested in being interviewed about their professional practice.

I have a background in design research on human-computer interaction, and a longstanding interest in the impact of emerging digital technologies on people's everyday lives and broader society. I explore how concepts and applications of Blockchain, Artificial Intelligence, and Internet of Things are being introduced at a high pace without knowledge of their impact on society and their effect on public policy. From the interview study, I hope to gain insight about the professional practices of Think Tanks and public policymakers on how they build an evidence base that can be used to influence and develop public policy.

[Only included in email to HCI researchers]

Driven to achieve a positive impact for Think Tanks and society through research, my ambition is to develop 1) new techniques and tools that help integrate design approaches into processes of policy-making, -informing and -influencing, and 2) create a space for the outcomes of HCI research to function as evidence for public policy. At this stage, participating in my research will require a short (approx. 1 hour) interview with me, which can be in person or via video conferencing. I would like to thank you in advance for considering this invitation. Please let me know if you are interested and I can provide you with more information.

[Only included in email to think tank employees and representatives]

Driven to achieve a positive impact for Think Tanks and society through research, my ambition is to develop new techniques and tools that help integrate design approaches into processes of policymaking, -informing and -influencing. At this stage, participating in my research will require a short (approx. 1 hour) interview with me, which can be in-person or via video conferencing. However, I hope that this might lead to longer-term collaboration for the development of tools that you and your organization could use to improve your policymaking processes. I would like to thank you in advance for considering this invitation. Please let me know if you are interested and I can provide you with more information.

Kind regards,

Anne

Anne Spaa

PhD Candidate, Northumbria University

Newcastle upon Tyne, UK

anne.spaa@northumbria.ac.uk

+447754529214

Follow-up email

Dear [insert name],

Many thanks again for responding so promptly and positively to my email! Attached to this email, you find a document that includes the information sheet and consent form to cover the ethics for this research. This gives more information about the content of the interview and the study.

In the information sheet, you will see that the research includes a plan for a group interview. It would be fantastic to organise this at some point in the research, but only if it seems that this is feasible and valuable. In the first instance, it is already fantastic to speak with you during this interview! (I will not expect anything else than the interview you have agreed upon. Therefore, I want to emphasize your right to withdraw from

participating in this research at any point. This covered in the consent form and information sheet.)

In the same document, you will find a consent form for you to sign and send back to me. It would be lovely when you are able to send this back to me before the interview, but in case you have any questions or comments that you would like to discuss first you can email me or we could discuss these at the start of the interview (the recordings will start after the consent form is signed and received).

As we haven't set a date for the interview yet, I like to suggest the following days:
[insert dates]

We have a [number] hour time difference, meaning that your mornings are my afternoons.

I could contact you in multiple ways, please let me know whether you prefer:
Google Hangouts / Skype / Facetime / Or another platform.

Again, please feel free to contact me when any question/comment come up when reading the document.

Kind regards,
Anne

Appendix C Interview Guide Study 1

V1.0 March 22nd, 2018

Interview schedule for a semi-structured INTERVIEW POLICY INFORMERS

One contribution of this Study could be about how people would define their professional practice in this space.

Good practice for such an interview:

- Allow a bit of time for:
 - o Quick overview again of what is in the information sheet:
 - If they had a change to read the material, whether they have question
 - o Ask if they want an overview of what the research and the interview is about, even if they already had an introduction already.
 - Helps to gear them into things.
- Make sure to ask open questions.
- Don't feel the need to fill in pause points through nervousness. Leave the pause after the question. Don't ask more to elaborate, let them pause to answer it.
- Have prompts in practice place for every question to explain the question (a rephrased version of the same question, so to say).
- If you feel in the moment, that you have an immediate question – whether it be to qualify or clarify something – feel free to break away from your interview schedule.
- Have the confidence that people will interpret the open questions in their own way.
- For every individual interview, you will be adding bits in there that are specific to the person or organisation that gives them a sense that it is tailored for them (which it is).
- Simple start up question to ease into the first theme.
- The phrasing makes it possible to make the questions less formal. It is nice to add a “would you be happy to talk about”, “could you say something about”.
- It is easy to make assumptions on how people understand current discussions and/or the status quo of their practice.
- You don't always have to change the interview structure for every individual, but you can change/add some nested questions, tailored to the interviewee.
- Around 10 questions should be enough.

Three main themes to address:

- Them having explain their day to day practice during which they have to develop a policy. If they are working on multiple policies at the same time. Who they are talking to. Where they get their information. How much time they have to develop policy. Where they are in the chain of policy making. To create a common ground, what we understand is policy-making practice.
- Dive a bit more into: where they get their information. What they find is credible/trustworthy information. How information becomes evidence. How they translate the information they find into a language they understand and is understood by the people they send the information to. The information gathering process.

- What do they think is, what kind of problems they run into? Is there a limitation to their access to information, the types of information, how they can communicate it to others, but also the sources of information they have.

An opening question: Ask them to ask who they are and what their professional role is in the organization.

Q1: “As an opening question, it would be great if you could introduce the organisation you are working for and your professional role within the organization.”

- ➔ Through that have them describe their professional work in their own words. And their organisation and what the organisation does.
- ➔ “Could you introduce. It would be great if you could introduce yourself by describing the organisation you work for and the role you have in it.”

Q2: Ask them how their organisation works with policy and policy making. How their work engages with policy. How policy relates to their work on a fundamental level.

“Could you, following on from that, could you just say a little bit about how your organisation engages with policy and policy making?”

Q3: Now you can go in with question about how their professional practice of developing/contributing to a policy.

“Could you describe your professional practice, how they work to develop policy, where you are in the chain of policy making.”

- ➔ You could have a note in their customised for the interviewee.
- ➔ [Customized for interviewee.]

Q4: “Let’s pause for a second and see if we can find a mutual understanding around of how policy practice is defined.”

- ➔ Scheduled as Q4, but frame it as a response to what the interviewee has said before.

[There seems to be a discussion within the policy making practice that it needs to be evidence. And everything needs to come from research. But within the same discussion there is a counter argument, that yes well policy is made for humans, and we have to talk more with people. So, I wonder what is considered evidence.

This discussion might particularly interesting for HCI, because we too have difficulties – as a field – to understand what is evidence, and what the insights are we gained through our research.

This question, without linking it to the HCI discussion, but to talk about how they get all the information for their argument. And whether it is finding proof to support the opinion they already have or that they form their opinion by finding different types of evidence. But then in a more PC way of phrasing.]

Q5: “Let’s...

- Get their thoughts on the protocol, the importance of policy being evidence-based. And the development of policy being evidence-based.
- Ask an open question that you ground in a couple of statements first.
- “It is understood in current publications that there are certain practices in public policy making.”
- Is it about how they work with evidence? Or the significance of evidence?
- I want to go around using the words of ‘evidence’, ‘participating’ or ‘opening up their practice of policy making to the citizens’. This because I fear a ‘standard’ reply when I use these. A protocol response instead of a personal response.
- “When I was reading into the current discussion within public policy, I get the sense that there is a discussion going on between how policy needs to be grounded.”
- A ‘by proxy’ question.
- I wonder if there is some value in getting their understanding of this discussion in their own words. Maybe it should be a question that allows to this topic of discussion (this element of their work) in their own words. Their understanding of what needs to be evidence-based, keeping policy development being focussed on people.
- My wording of discussion, I don’t want to state: ‘this is the situation, this is the discussion, in my wording, so therefore this is the question’. They might have an issue with how I phrased the discussion in the first place. If I allow them to rephrase them what I said, gives them a strong sense of: she is listening to me, as I am the policy makers, she is not assumptious.
- After having them rephrase the discussion, ask them to take a critical view on whether they agree with this discussion or not. If they take a side, which one, and how this expresses itself in their everyday practice. Do they try to talk with people, or do they try to get access to information databases such as academic digital libraries, etc. How do they get access to their information, what they see is credible information.
- Think of a list of nested questions. That are very focused on their personal practice, focused on the material they work with, the evidence they work with, how they get access to information, and how they assess the trustworthiness of it. (5a, 5b, expand the question within it.)

Q6: Whether they have any critical comments on this way of working, their own way of working. Any issues or ambiguities around that work of trustworthiness. If there are issues, problems that typically arise – whilst working, gathering with these types of materials.

[What do I mean with materials?]

[5 – 6 questions around the gathering of information and the materials they use. And the development of policy that is evidence-based (the anticipatory! (people is participatory)).]

QX: How they translate the information/evidence to make it suitable for themselves as policy makers, and to the people they communicate it to (outwards from their organisation).

- ➔ One question about the analysis and the translation. And how this analysis is communicable outside the organisations.

QX: Potentially one question, perhaps even in broad terms, but to address the design, to the design of methods and procedures for their work. How they couch that in their workflow.

Q10: Something about the development of their practice. How they feel/see the challenges they face.

- ➔ In a way, they are problem solvers: they translate information that is useless for those that will be informed by it. They solve this problem by analysing the information and translating it into a language that is understood by the people that used this type of information they are informed by. And how they develop this type of practice of 'solving' this 'problem'. How do they tackle this. How do they gather information, how do they translate it.
- ➔ There is something you could reflect on around that a question that is more future oriented. Something about their practice, or more higher level.

Q-final: Ask them if they have any comments/questions.

Appendix D Example of Memos for Study 1

Intellectual Acknowledgment

This is not a topic that is going into too much yet, but several interviewees mention how the work moves between different people within think tanks. Someone works on a project, but someone else might present it to the outside world. Research used by policymakers might clearly come from a think tank report, they might not always reference the report. Academic researchers might not be directly referenced because they are used not for their specific research, but guided policymakers/think tankers to literature or for their thoughts. The impact of research – both academic and think tank research - on policymaking is hard to point at where exactly it is.

Recipient Design

Conveying the message in such ways that they 'fit' with the kind of message the receiver needs/hopes to hear. Speak in the language of your audience, especially if the audience is different from your own community.

Appendix E Consent Form Study 2

AUDIO RECORDING CONSENT FORM

Research Event: Interview

Description of the Research:

Prototyping in Policy Lab and Open Policy Making

I understand that this interview will be audio recorded. I understand that what I say, will be used for further research for Policy Lab as well as Anne Spaa's PhD research at Northumbria. I also understand that any of the recorded material will be kept anonymous during analysis and dissemination.

This material, in edited form, may be used in presentation of the research findings to civil service staff, stakeholders, and (public) communities such as academic research. All the audio recordings, before anonymising, will be kept on local drives.

I have been given a full explanation about possible uses of my:

audio recording name (in caption)

I had the chance to ask questions before signing the form

I consent to the use of my:

Audio recording and/or name (in caption) for the purposes of this research described above. I hereby grant Anne Spaa the right to use the indicated above, in any presentation of the research findings.

What if I change my mind?

I understand that I have the right to withdraw from this research at any stage, without the need to give further explanation to why. If I wish to do so, I will contact Anne Spaa. She will remove my data.

Signature:

Date:

Name (please PRINT):

Address:

Daytime telephone number:

Email address:

Are you happy for Anne Spaa to re-contact you in connection with this research? YES

NO

⌘<-----

If you have any further questions please email anne.spaa@northumbria.ac.uk

If you wish to withdraw from the research, at any case, you can do so at any point during the research. You do not need to further explain why. If I wish to do so, please contact Anne Spaa. She will remove your data when requested.

Appendix F Activities during Participant Observation

Study 2

Daily schedule and undertaken activities

The initial schedule that was planned for the fieldwork was to spend about 30% of the time analysing the open policy making toolkit, to decide what tools and methods were missing, underused, popular, or outdated. 20% was allocated for reflection and additional data collection such as interviews. 50% was allocated to work on projects, of which most was spent on the Youth Voice and Government Consultation projects. Due to the workload the team was dealing with, the time scheduled for analysing the OPMT was reduced, and more time was spent on ad-hoc needs for other projects. Through participating in a wide range of projects - each of which worked on different policy issues, were at different stages of the process, and therefore were using different tools and methods for design-oriented open policymaking - the toolkit was explored through practice instead through a theoretical approach that was considered initially.

During the fieldwork a wide range of activities was undertaken as part of the research period. These activities were categorised broadly in four forms of data collection: observation activities, participation activities material usage and development activities, and interviews. The majority of the activities are listed below.

Projects

- Youth Voice (primary)
- Government Consultation (primary)
- Geospatial (ad hoc contribution)
- Home Office (ad hoc contribution)³²

Observation activities

- Training session for Department for International Trade

³² I was asked to step into projects to help others deal with their workload; Whether I could help designing a speculative new paper for a project on Geospatial Design? It might be interesting for you to redesign this poster and presentation for the Home Office. The 'How can we..' cards don't fit our grid design for the workshop, help! We need people to help set up the workshop for the Geo project tomorrow morning... When the deadlines of 'my' project weren't that close yet, there was time to help with those that were.

- External information evening at a local London Youth Council
- Stakeholder session for Electoral Engagement project
- Cross-government department meetings for the overarching young people engagement program (which the Youth Voice project was part of)
- Weekly stand-up meetings of Citizen Service Group

Participation activities

- Co-creation weekend for Youth Voice project as presenter and design expert team lead
- Interviews and analysis for Consultation project
- Drop-in session for government departments for info about open policymaking, OPMT, and Policy Lab
- Weekly meetings of Policy Lab
- Daily project meetings of Policy Lab members working on Youth Voice project
- Work and collaboration on Youth Voice projects and other projects

Material development

Headline exercise

- Redesigning existing materials for specifics of Geospatial project
- Preparing workshop setup
- Designing house style for project materials
- Personas based on insights from consultation interviews
- Sematic analysis timeline
- 'One-pagers'
- Slide deck on open policymaking

Interviews

- With senior policy designers of Policy Lab on prototyping for policymaking at UK Government

Appendix G Information Sheet and Consent Form Study 3

A qualitative study into idea development within policymaking

Working Thesis title: Working at the Boundaries of HCI and Public Policy

Project Information Sheet

Anne Spaa (lead researcher)

With the following information sheet, I inform you and the organisation you work for about the intention of the research, the practical details, the methods and tools used to collect data, the type of data collection, and the research questions motivating the research.

The project

This three-year research project explores the ways design approaches could inform public policy on topics related to emerging technologies. At this current stage of the project, I want to gain an understanding of the processes of developing ideas in public policy and the different types of organisations that are involved in these processes. Therefore, I would like to conduct an interview with you that go specifically into phases of exploration and iteration in the process of developing ideas in policy.

This particular study is run in collaboration with Policy Lab, and I am recruiting participants for this Study through their network. I have approached you as you have collaborated with Policy Lab in the past, and since then have moved forward the project in which Lab was involved in the policy development process.

What do I hope to learn?

Through a series of interview, I aim to gain insight into;

- 1) How ideas develop in policy – towards both delivery and implementation;
- 2) Whether the practices include elements of iteration and exploration;
- 3) How the practices of idea development in policy compare to practices in design research;
- 4) How material artefacts could support phases of iteration and exploration in idea development in policy.

What types of data will I collect and how long will it take?

In this strand of my research, I will be interviewing policymakers in central government.

One of these interviews will be conducted with you. This interview will take 60 to 90 minutes and will be conducted in person or via video conferencing (e.g. Skype) depending on your availability.

With your informed consent, I will record audio on an analogue and a digital device during the individual and group interview. I will take several photos of the materials that we work with during the interview, but I will not include any photos in which you can be recognised.

What will I do with the data?

I consider all content shared by you to be sensitive and will anonymise it as soon as I store the data. Names of individuals and organisations will be replaced by codes or acronyms. Only with your informed consent and that of your organisation, I will reveal names.

I have solely academic intent and no commercial purposes for my research. I will publish the insights of academic value in the public domain. This also means that, to maintain academic integrity, critical observation and reflection are a part of my research.

Important, I have no intention to criticise the work and practice of you or your organisation. When I identify gaps and opportunities in the work and practice, I will feed these back to you and your organisation to benefit the organisation.

I will give you the chance to review your data, including the (shortened versions of the) transcripts of the interviews to make sure it does not include anything that you consider too sensitive or personal to share.

Where and how will my data be kept?

I will store the data in three places. On a local drive on a laptop and on two external hard drives that will be kept secured. I will secure the folders on each of these devices with a password which is only known by me, the lead researcher.

As stated according to the University's guidelines on records retention, I will keep the data secure until the completion of the doctoral studies plus three years.

What are the benefits for getting involved in this project?

I will share all insights with you and your organisation so that all parties involved in the research can benefit from the outcomes of this project.

Some benefits might be:

- The insights that we gain through this research might inspire innovative ideas that improve the work and practice of your organisation.
- This research aims to inspire the development of design infused experimental methods, tools, approaches and techniques for the policy landscape. I will communicate these outcomes with you and your organisation which might benefit your work, practice and organisation.

What if you change your mind?

You have the right to withdraw from this research at any stage. If you wish to do so, please contact the lead researcher Anne Spaa. I will remove your data.

You do not have to give an explanation to why you wish to withdraw.

If you have further questions who can you contact?

You can contact me, the lead researcher Anne Spaa (anne.spaa@northumbria.ac.uk, +44775452914), my supervisor John Vines (john.vines@northumbria.ac.uk), or our Research Ethics Director for Northumbria School of Design, Mark Blythe (mark.blythe@northumbria.ac.uk), as well as Andrea Siodmok (andrea.siodmok@cabinetoffice.ac.uk), the deputy director of Policy Lab.

Thank you for participating in my research,
Anne Spaa

A qualitative study into idea development within policymaking

Working Thesis title: Working at the Boundaries of HCI and Public Policy

Consent Form

Anne Spaa (lead researcher)

By signing this form, you confirm you have understood and agree with the statements below, and wish to take part in the project.

Please make sure to sign each of the statements with your initial when confirm consent.

		Initials
1	I have read the 'Project Information' page and I understand the purpose of the project.	
2	I have been given the chance to ask questions about the project and these have been answered to my satisfaction.	
3	I understand that I can withdraw at any time during the experiment.	
4	I understand that I may request my data is withdrawn from the project after the experiment is complete. However, I also understand that there will come a point where it will no longer be possible to remove my data, for example once statistical analysis has been conducted.	
5	I understand that my details will be kept confidential, securely stored within the university, and referred to using a pseudonym and not my real name. No information that will allow me to be identified will appear in any printed or digital material in relation to the project.	
6	I agree to the University of Northumbria at Newcastle processing this information about me. I understand that this information will be used only for the purpose set out in the information sheet supplied to me, and my consent is conditional upon the University complying with its duties and obligations under the Data Protection Act 1998.	
7	I have read the 'Project Information' page and I understand the purpose of the project.	

Participant's Name:

Participant's Signature:

Researcher's name:

Researcher's signature:

Date:

Appendix H Recruitment Email Study 3

Dear [insert name],

My name is Anne Spaa, a PhD student from Northumbria University. As part of my research, I collaborate with Policy Lab. Currently, I am looking for policy makers who have experience working with Policy Lab to participate in an interview study. Sanjan suggested me to get in touch with you to see whether you might be interested in participating as you have worked with Policy Lab on [name project or other collaboration].

The topic of the interview is to **talk about the phases of exploration and iteration in the process of developing the ideas in policy**. The specific time period to reflect on will be between the Policy Lab deliverable handover and the implementation of the policy.

The **conversation will take 1 to 1.5 hours** – depending on your availability.

From this session, I hope you can take with you a fresh perspective on your work towards delivering a policy document through the lens of iteration and exploration. Also, we will reflect on how material artefacts could help support phases of iteration and exploration that we have reflected on.

I hope you are interested in taking part as one of the participants. If so, I can provide you with more information on the interview setup.

I will be in London from May 15 (2pm onwards) until May 23rd (until 10.30) to conduct the interviews at location. I do not have a cross-government pass, but I am more than happy to come to you for the interview. If this doesn't fit your schedule but you are interested in taking part, we could find a moment outside this period.

I am looking forward to hearing back from you!

Best,
Anne

<https://www.linkedin.com/in/annespaa/>

PhD student at Northumbria University of Newcastle

Appendix II Interview Guide Study 3

Before we start (5 min)

Consent form and information sheet (3 min)

Thank you again for your time today.

Before we start the interview, I'd like to give you a moment to read the information sheet and sign the consent form.

After that, I will start the audio recording.

Signed: I will start the audio recording now.

Walkthrough (2 min)

I'd like to give you a brief overview of what we will be going through in the next hour-or-so.

- We will start with a brief introduction of the both of us, which should take very shortly.
- Then, for about 5 min, together I would go back to project you worked with Policy Lab, or another team/individual that work with design research / human-centered design / user research.
 - A quick reflection you on that project, for example the activities that took place and deliverables.
- These two short reflections will help us kick-start the main section of this conversation.

- For the main section I have designed some material [get material]. What you see is a timeline which we will populate.
- We will start with the top half. Taking 15 minutes to reflect on how ideas within a policy develop towards its delivery and implementation.
- Then, we will continue to reflect on how the development of the idea sits in within the policy environment.

- The question at the end of this interview will ask you to speculate on the future of idea development within policy.

Do you have any questions?

Feel free to ask them now, but also at any point during our conversation.

Introduction + reflection on project (10 minutes)

Introduction (3 min)

Who are you?

(Which department do you work for?)

What is your educational background?

What are the kind of projects that you work for?

What is your favourite element in a policy process?

Who am I?

My name is Anne Spaa, and I am a PhD student at School of Design at Northumbria University.

I am trained as an industrial design,

But am particularly interested into how designers 'think' and 'their practices' and how they might fit non-design disciplines.

Previously, the kind of projects that I have worked on are how our material environment impacts our everyday lives.

Reflecting on a Policy Lab project (7 minutes)

Could you give a brief introduction to how you have collaborated with Policy Lab?

What was the project you got policy lab involved in? / Why did you get policy lab involved?

- You can be as detailed as you feel comfortable with. Let me know when you have anything you do not want to be included in the recorded data.
- What did you think policy lab could bring to the process?
- **How much were you involved in the activities run by them during the project?**
- What were the outcomes of the project by lab? What were the deliverables, what were they (i.e. reports)?
- Was there anything specific that you learned from lab? Did you try to continue throughout the rest of the project?

That was very interesting to hear about that from you.

Let's move on to the next section. [Get map and stickers].

Developing the ideas in your policy (15 minutes)

As I mentioned before, I have designed a couple of materials to help guide the conversation.

Rough framing (4 minutes)

Firstly, this sheet shows a timeline that we will populate on both sides. We will write on it, draw lines, add stickers, etc. For now, we will just focus on the top of the timeline.

Before going into detail, I'd like to set up a rough framing.

- As you can see, it has identified two points in time: the policy lab hand over – this is where the project with policy lab has come to an end, and they have handed over their final deliverables to you. The second moment is the policy implementation, which means that the policy is going live.

It does not have to be the work you described just now, it can be another project that is currently further down this timeline.

[Give a moment to on decide project]

- Could you identify the moment your policy team are at 'now'?
How long has it been since policy lab handed over their deliverables to you?
How much longer do you have to go until the policy implementation. This can be an estimated guess if you are not sure.

I would like to reflect with you on how the idea in the policy document has development within your policy team after the design team (e.g. policy lab) has handed over their deliverables.

- To start, could you identify some major points during this process – that have happened already or will happen in the future.
You don't have to detail these but a few keywords might help you remember which they were.

[Indicate major points and keywords]

- Could you reflect on how the idea developed by drawing a line across the access. The Y-axis indicates the 'width' of the idea. To give you an idea, it could look a bit like this. [Show example line].

[Draw line]

Populating the timeline

Let's move into putting in some details in this mapping.

I can imagine that there were aspects – people, rules, protocols etc – external to your policy team that influenced this process. You don't have to reflect on this yet. We will get back to this later, now we just have to focus on how the idea developed within your team.

Ok, to help reflect on the process, I have designed several icons that visualise steps that might be taken during the development of an idea.

We can use those to determine specific moments / phases in the process.

I'll give you a moment to familiarise yourself with the icons and what they mean.

I just want to let you know that there is no wrong way of doing this exercise. It is purely meant as a means to help us in the conversation, so use it in any way that works for you.

[Give a little bit of time to familiarise with icons.]

- Let's go back to the moment where the team handed over their deliverables to your policy team.
 - Were there multiple ideas developed in the deliverables they handed over?
- What was the first thing that your policy team did with the deliverables from policy lab after the hand-over?
 - Did you use them as the central document to move forward the project, or where the documents additional to the policy project? Could you describe the role of the policy lab deliverables at that point in the process?
- What happened after that, did you widen up or narrow down the idea(s)? [USE STICKER To indicate movement]
- Could you say a bit about what happened to the idea? Why did this happen? Was this a deliberate development, or did it just happen?

Other probing questions:

- Was there a particular element from the policy lab deliverables that was paid most attention to? For example, the report, the concepts/ideas, the prototypes, the insights?
- From your individual perspective, from your experience working with policy lab, was there anything that you found was very important to keep in mind? Why?
- Could you reflect on the first step that happened to the ideas that were proposed by policy lab?
- Were there specific activities that your team undertook which informed this step? Feel free to write those activities down on the timeline.
- It might help to look at the different icons to reflect on this first step in the idea development.

Finish timeline

This looks quite well-populated now. Is there any final things you'd like to add?

Identifying and linking up external influences (15 minutes)

Thank you for bearing with me and not focus too much on what external influences were involved in the process.

We now have time to go into that:

- I'd like to identify and link up the external influences as the idea in the policy developed.
 - I can imagine that these were aspects such as people, rules, and protocols.
- So, as we go through the timeline that you just populated at the top side, could you put down some stickers of who are involved.
 - I have suggested a few layers that might bring those external aspects to the development of the project.
- As we go through this, could you reflect on how they influenced the process? And how they related to the development of the idea in terms of power to when/why things happen.

[On an abstract level, guide conversation to reflect on how a design process and policymaking process do and do not align. <- this is important]

Keep it to a level that you are comfortable with sharing in the public domain.

Probe questions during this second part of the reflection on:

Comparing timeline with policy lab experience

- Were there specific activities that you undertook during the policy process that were new, were they inspired by the work with policy lab?
 - How were they fitted into the process to meet the priorities of the external network?
- How much of the idea development was inspired by the work coming from the design team you collaborate with?

End question

How to better integrate the development of the idea implementation and the political process of the decision-making in this development?

Appendix J Detailed Participant Table Study 3

Participants Department Role	Project worked on with Policy Lab	Background and Policymaking Experience	Design Experience
(Pilot Interview) Home Office User Researcher	Is unable to share details of the project, due to sensitivity of the policy topic and being a project that is still in process. Looks ahead to how the policy process may proceed in the implementation phase.	User researcher in the Policy Digital Service, which is part of the Digital Data and Technology group within the Home Office. Works in the <i>digital field</i> , designing services to help the police do their work.	In their role as user researcher, they work together with service and interaction designers to implement policy. They take an agile approach to the development going through stages of alfa and beta testing, launch and retire. Part of the project during which they collaborated with Policy Lab they were on placement at Policy Lab.
P01 Department for Culture Media and Sport Policy Advisor	The project with Policy Lab was one of three projects in the strand of work. Project focused on collaboration with young people to co-create a digital platform for young people to engage in government consultation. The project was considered a pilot, which allowed Policy Lab to integrate	Policy Advisor in DCMS, there for 1.5 years. Youth worker by background. They are still new to and learning about policy profession, and their work is mostly focused on bringing the voice of young people into government. Moved into policy because the work they were going	P02 has experience doing co-design in youth work / charity context. Collaborated with Policy Lab on a pilot study within the Digital Youth Engagement space. Specific learning on design in their collaboration with Policy Lab was about tools for co-design in policy context. For example,

	<p>new methods more.</p> <p>Policy lab is being able to develop new methods, that conventional policymakers might not be able to do. Project is still in process and has not yet reached policy development phase at time of interview phase.</p>	<p>to do focused on young people and youth workers. Only aims to do policy work in this space, as they consider being a policy maker a means to an end.</p>	<p>about <i>personas</i> and <i>blueprinting</i>.</p>
<p>P02 Cabinet Office Policy Advisor</p>	<p>Is unable to share details of the project.</p>	<p>Worked for the Democratic Engagement Team when collaborating with Policy lab. They didn't think they would work in democratic engagement but is interested by the interesting field. This was their first civil servant and policymaker job. Is an English teacher by background, and worked 3.5 years for secondary and a-level. Got recruited during the 'annual recruitment drive' for</p>	<p>Is interested in exploring 'design' further since collaboration with Policy Lab. Signed up for a design course. Sees it as a "different avenue route to "take when going through a policy project:" "All other projects and projects are [...] created by experts in the field, this [project] was us being more involved" as policy makers for example "went along with the user testing [and] video ethnography."</p>

		which they applied online.	
P03 Department for Education Policy Advisor	Project sought “to increase the diversity of teachers” in the UK: The work focused on developing ways to “boost” participation in the workforce, primarily BME and LGBT, and particularly in the senior roles.	Worked for the Teachers and Teaching Directorate at the time of the project, moved to DCMS since. Has been a civil servant for about 5 years at the time of the interview. Worked mostly in policymaking. Worked a little bit outside the profession across a range of departments. Their professional background is economist but worked within policy and government solely. They have no economics work background.	Is “heavily bought into the policy lab model”. Realises the model “is not perfect and very difficult way of working in a particular way”. Feels that it needs “a behavioural change and a cultural change” within government. Sees the “fundamental idea behind it [the Policy Lab model] that everything [government does] should be on some level informed by the end-user.”
P04a HMRC Retired Policy Advisor	The project with Policy Lab focused on improving the letter send to young people who are coming of age. In this letter, they are informed about their National Insurance number, which they require in order to	P05a retired about halfway through the policy process. Worked on the national insurance number (NINO) for extended period, which initially was part of the Department for Work and Pensions	P05a has experienced the shift of HMRC to generally work on a basis of “upfront change description” towards “the agile methodology”.

	amongst others work and pay taxes. This project was conducted several years back, in the early years of Policy Lab's existence.	(DWP) before becoming part of Her Majesty's Revenue and Customs (HMRC). Worked from outside London, training to London regularly.	
P04b HMRC Policy Advisor		P05b is also based outside London. Initially had a job that allowed them to travel to London once a week. Worked on NINO-related projects. They now work on an EU-Exit project, which is more challenging to do whilst based outside London.	P05b too has experienced the shift towards the "agile methodology" and sees an increasing importance laid on stopping processes "to test, even externally, to see if something works."
P05a-S HMRC Design Lead	This team is developing a 'design methodology' to be implemented across HRMC, not just for the policy people, it is HMRC-wide. The methodology responds to the "disconnect between policy, design, and delivery" and aims to better meet "user requirements". Aims to inform the way HMRC	Design leads working on the design methodology: The principles, process, and human-side of how the practice going forward. Their job is designing and trying to run it.	User Interface design background, digital standards, uses accessibility and inclusion.
P05b-S HMRC Design Lead		Design lead, but more concerned with the <i>day to day</i> running of the actual process that 06a is developing.	Had a background in 'use stories' many years ago.

<p>P05c-S HMRC Senior Design Analyst</p>	<p>will design and deliver change going forward. Elements of the methodology include the setup of multidisciplinary teams that cut across policy, design, and delivery, and introducing tools to guide and document the research and decision-making</p>	<p>Senior Design analyst works for 06a. Works on the ‘designers playbook’, which is the lower level steps that they want their designers to follow when delivering design. It is the <i>what and the how</i> of the principles that 06a leads on.</p>	<p>Lean background.</p>
<p>P05d-S HMRC Design Analyst</p>	<p>processes.</p>	<p>Design analyst, supports 06c. May develop some of methods that go into the playbook. Works on the core comms of the design methodology.</p>	<p>Process ops background within HRMC, has degree in Information and Communication Sciences.</p>
<p>P06a Department for Transport Policy Advisor</p>	<p>Project with Policy Lab was part of a large of work on ‘Maritime 2050’. Seven themes of work were identified, with the team collaborating with Policy Lab around the theme of ‘autonomy’. Each of these themes were developing a strategy roadmap towards 2050.</p>	<p>First job as a policymaker when joining the project. Joined maritime technology team, had brief to do some horizon scanning. Desk-based research, speaking with stakeholders. Identifying key trends in maritime technology that might</p>	<p>Worked with Policy Lab on the project. As this was their first project as civil servant, their experience of policymaking is that of the Policy Lab approach, which allowed them to take that approach as ‘normal’: “For me it was just how it was done, because this was how I started off doing it.”</p>

	<p>P07a left the team shortly after the process had moved into the development phase. This was when P07b joined the policy team to take over their role.</p>	<p>happen in the future. Had no knowledge on this as he is a graduated historian. He brought his non-policy approach to it. P1 has left the policy team and moved on to a different project.</p>	
<p>P06b Department for Transport Policy Advisor</p>		<p>New to the policy profession and development phase. Worked 7 years with parliament, quite a different environment, working for one individual. "It is not the intellectual logic-mapping way of going about things." Then worked for ministry of housing for over half a year, but again very reactive. Definitely not being in a room thinking up options. Quite new to maritime. When started on the maritime project with the roadmap that had 10 recommendations,</p>	<p>P2 joined the policy team half-way through the project, and has not worked with policy lab directly, though works with the report that came out of the policy lab project.</p>

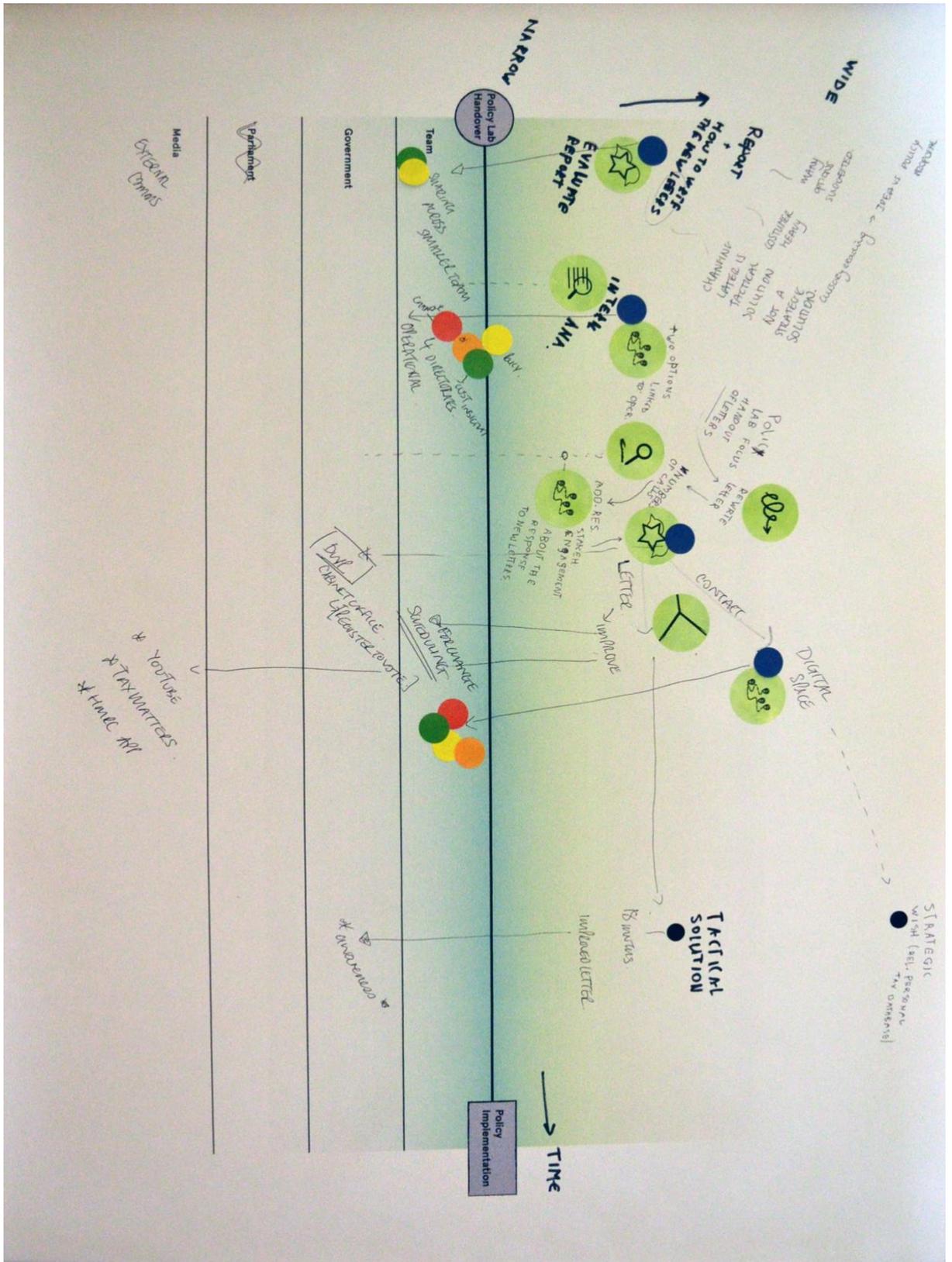
		that she since “sought to implement”.	
P07a Cabinet Office Policy Advisor	Do not have much experience working with Policy Lab yet. The interview focused on populating the timeline with what a ‘classic’ policy process might look like, whilst reflecting on the potential differences with the open policymaking approach used at Policy Lab.	Studied social and political science. Then worked for google class team as community manager. Joined government several years ago, worked for DfE as a graduate intern, was a PA to one of the deputy directors of the departments, for half a year. Then joined ‘flexible resource’ unit, sort of how policy lab works but then from a policy perspective. Went on apprenticeships, teacher recruitment, going through policy stages quite quickly to get to policy recommendations. Moved on to next team, which used education to improve social mobility. For which they did a strategy / action plan. Most recent job was	P08a works at Policy Lab on secondment. Did a series of internships in social entities, a ‘year here’ which worked with design thinking a lot and anthropology. Already interested in design thinking after graduation, got in touch at the time. When she heard about secondment opportunity at lab and got in touch.

		cross government team to tackle loneliness.	
P07b Cabinet Office Policy Advisor		Studied modern languages, France and Spanish. Went to Spain and Latin America. Worked as teacher and translator. After a few months, joined the civil service. Started out as graduate intern in the foreign affairs, moved into job department for communities and local government. Was there for several years. A role in looking at diversity and inclusion, working at integration policy. Involved in developing the integrated communities green paper. Moved to Department for International Trade, was there for 18 months, working on Latin American trade.	Joined lab about 1 month ago, on secondment. Got to know Policy Lab in workshop with DfIT.
P08-S	The interview with P09 reflected on the impact	Career civil servant. Has been in a range of	Started at DfE several years ago, initially to lead

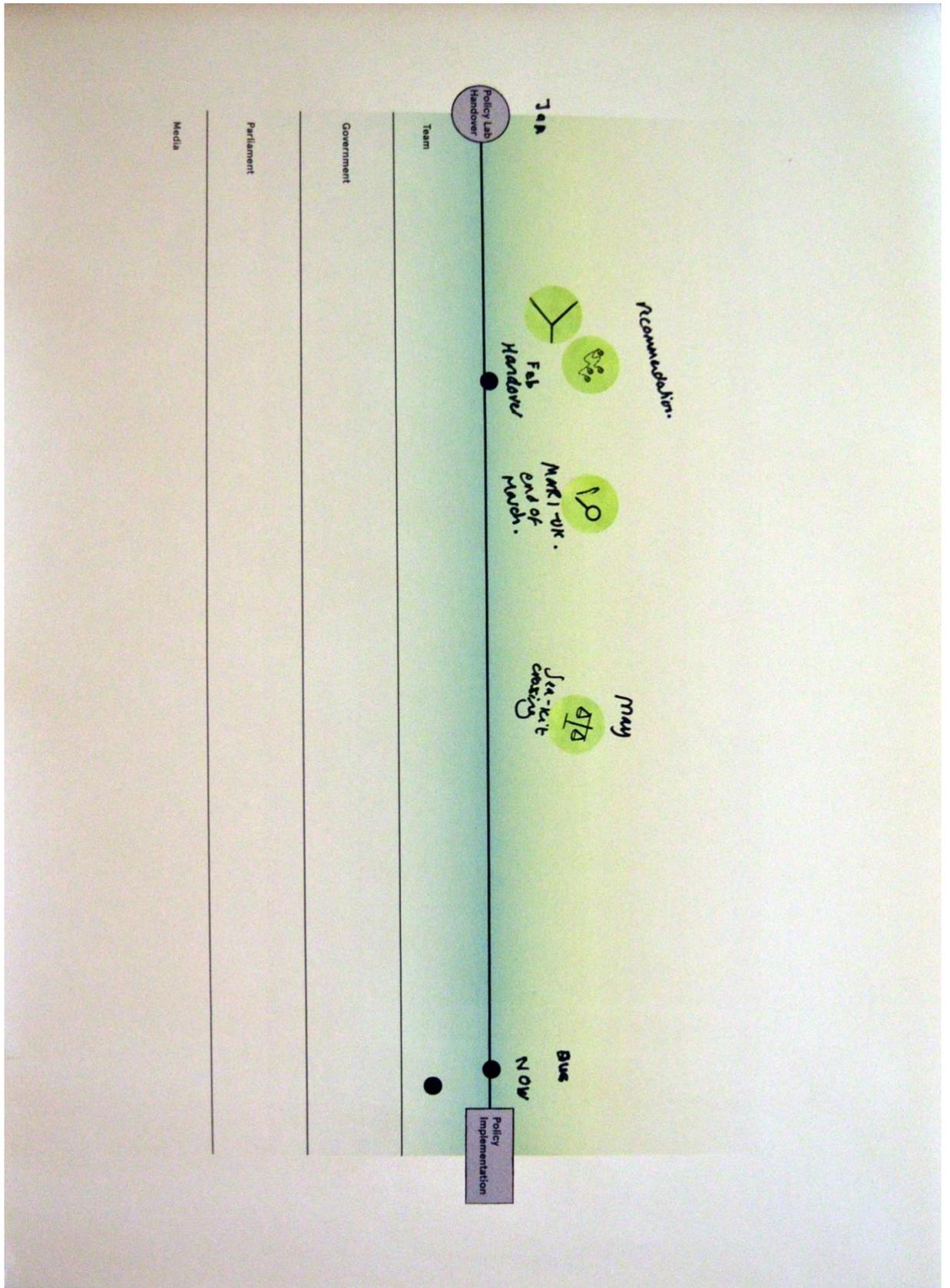
<p>Department for Education Senior Civil servant</p>	<p>of the 'service manual' and 'service standards' introduction to the Department for Education. The use and challenges of user research and design in governmental decision-making.</p>	<p>senior civil servant role. Worked for Department for Trade and Industry, the British Army (as civil servant), Ministry of Justice, and DfE. Has led strategy teams and project delivery teams, mainly around criminal justice and little bit on civil justice. Led transformation program on issues around people: attracting, retaining and developing people and their training. By background a physicist, spend a few years in physics research.</p>	<p>work around teacher recruitment and retaining. In this area they tried to introduce more design- user-led approaches to the department. Promoted to senior civil servant position. This brought more policy areas into his work. They moved sideways, in a senior civil servant position, but with a different policy area under their responsibility. They also lead transformation and digital teams in the department, as they started these initiatives in the department a few years back. It did not exist as a central capability before that.</p>
--	--	---	--

Participant 03:

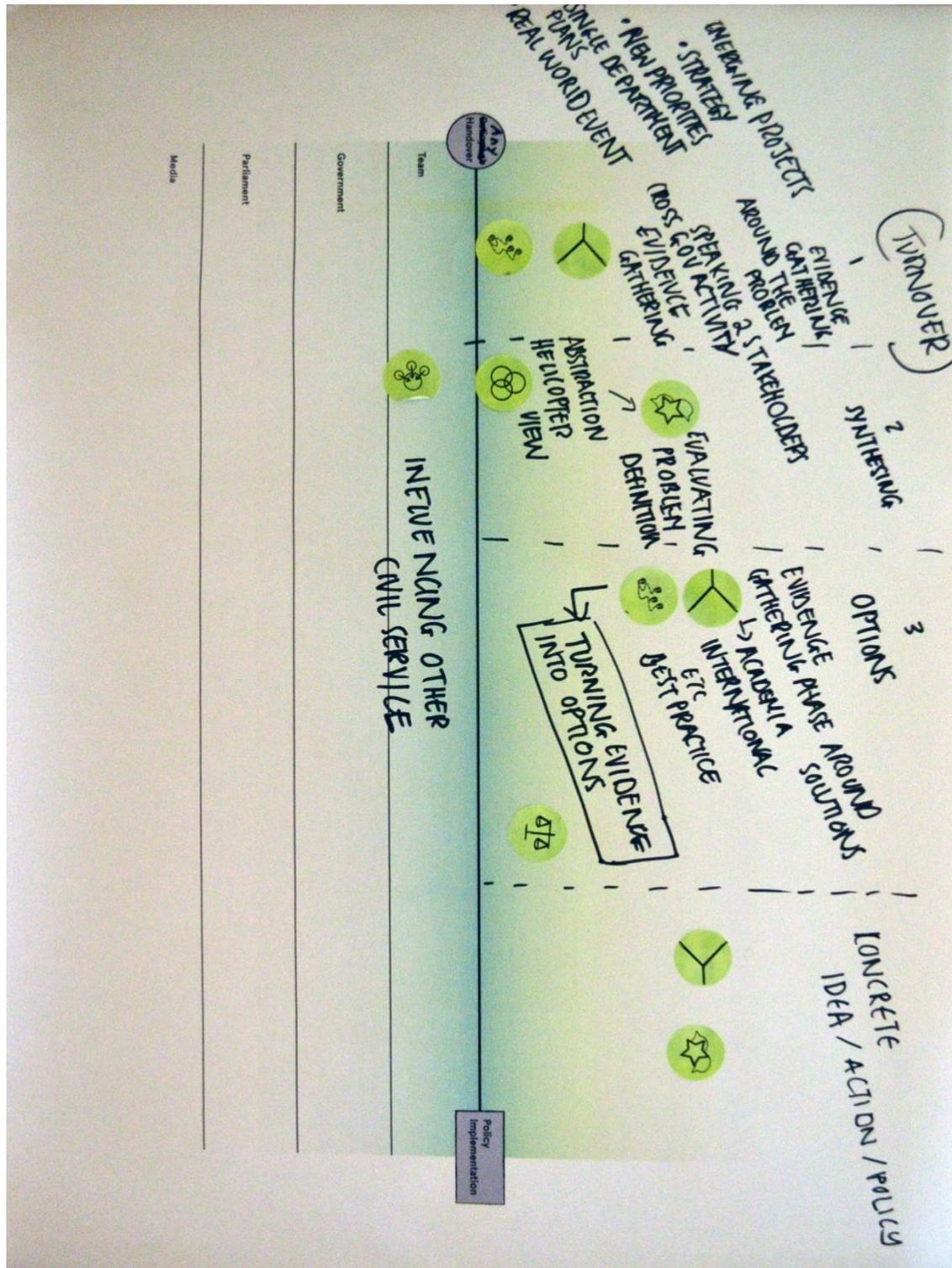
Participant 04:



Participant 06a and 06b:



Participant 07a and 07b:



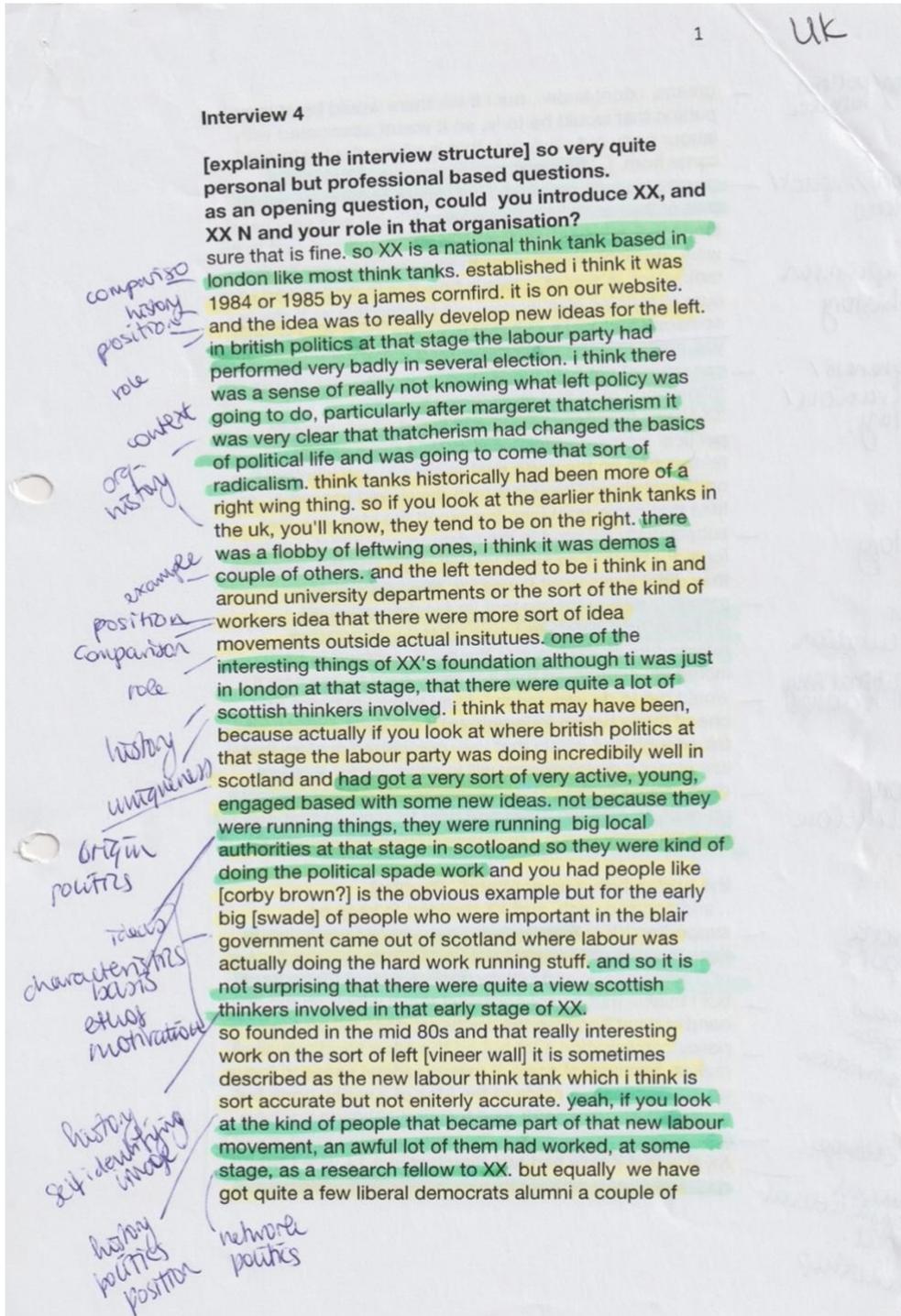
The interviews with participants 05a, 05b, 05c and 05d and participant 08 were conducted without the timeline exercise.

Appendix L CHI 2019 Paper

Example analysis process Study 1

Included in this appendix are examples of different steps throughout the process of analysing the data of Study 1 thematically. For this Study, policy informers were interviewed (semi-structured interviews).

Examples of the coding process.



Interview 5

3

definition — role, position
boundary
worker

broker/interm. —
vs boundary

brokerage

least two spaces or disciplines simultaneously, but that has to [obey] the rules of both, which is different from the idea of 'broker' or became very popular some years ago in this field around the world, people were talking about 'knowledge brokers' and 'knowledge intermediars' but my experience with this knowledge intermediars is where neither researchers or think tankers or academics or policymakers. they were somewhere in the middle. in this is very clear in the aid industry, you have these intermediars all the time. everyone that takes their cut so to say..

exactly there is a lot of money that goes into some sort of pot

.. somewhere in the middle right. so it makes sense in the business model of many many think tanks or ngo or consultancies working in the aid industry but really what you need is somebody who is both a journalist and a respected economist. both a think tanker and a respected sociologist. they are not going to be the best politician, the won't be prime ministers, and they won't be the professor emeritus of old souls in oxford. but they will be a pretty good researcher and they will appreciate research and research methods and they will be able to stand their ground in an academic conference, they might chair academic conferences and they will be pretty and solid and respected as policy makers and they will be able to stand their ground in a cabinet meeting, you know if you are invited to advice the prime minister for example. so that is the boundary worker that good think tanks are. so that is what a good think tank is.

need —

prof. pract. —
limitation

a good # is...
good prof. practice

so it is not a translator, it carries both identities [instead].

of course as a think tank you cannot say you are a policy maker but you have to [obay] to those rules you have to understand that in politics some things can be and cannot be done and in research in there are things that can and cannot be done. so you are engaging with a policy maker a good think tank shouldnt go and say 'but oh i am a researcher' they should understand what the policymaker is asking for and why they are asking for it. so they should play by those rules and use their language.

be like —
your audience

good practice

i had an interview with another think tank last week, and she mentioned that within think tanks you don't really act as individuals but you might work on a

Interview 7

so it seems that.. so how i interpret this, is that your organisation is .. you didnt called it an organisation but i forgot the word..
.. program!

program, yes! so you are the programm that translate or bridges research with policy and Politics, but how do you bridge?

- approaches —
- compensator —
- compensator prof. pract. change —
- role, impact, power prof. pract. leadership —
- limitations prof. pract. —
- approaches —
- deliverable —
- awareness —
- deliverable —
- deliverable tools approach change prof. pract. —
- ext. input change intern. work process approach —

yes, so how that is interesting there is no one answer to that, fundamentally, we have had a variety of different approaches. to draw a distinction between, say, how the civil servant works and how an external futurist think tank might work.. were XX to be an external organisation, run its own projects and thinks 'you know what, this is really important, the government needs to understand this it needs to do something about this now, we might go about essentially, trying to send that into government and share that information with them and if that did not go anywhere, you might think about how would you campaign if you would like to change government policy. as a civil servant, and that is getting political essentially [he refers back to the campaigning here].. as a civil servant is to be more of a neutral advisors to the government of the day. our job is to share that information and inform but ultimately if government ministers look at that and say, thank you for that evidence we accept it but we are taking a different approach. our job is not then to campaign for a policy change but to serve the government of the day with each end they set. so that is a kind of more practical description of a differentiation. in terms of how we go about doing it. there are any numbers of different mechanisms to feed into policy. at its base most formal level, XX and its wider futures work, when we do our own analysis. we will publish a report. so we will share that with senior officials, with junior officials, ministers, hand it over and then it will be published on the internet so that everyone it can see it. saying this is our analysis this is what we think is happening, here are the choices government faces and perhaps are things you might ought to think about doing. at different points in XX future that has been more or less been about bringing emphasis on the report as our mechanism for communicating. more recently, we have retained the report as a mechanisms but partly because of some work we did with the design council and kind of thinking about design thinking, thinking much more about actually what is actually the kind of user journey of the

Examples of memo writing.

Memo Example 1:

Policy Development Cycle – Across the interviews, interviewees have been describing how their work positions itself in the different phases within the policy development cycle. ROAMEF was mentioned as an idealised version of the policy development cycle within the UK. Where they step into the process. R&D to initiate the development of policy, during the information gathering stage of policy making, whitepapers, improving a (final) version of a set up policy brief by helping policy makers with the language. But also, think tanks aiming to influence/collaborate with policy makers, but also trying to influence politicians. Their INFLUENCE MODEL is impacted by the difference phase of the policy cycle they aim to have impact, or whether they want to influence the policy cycle directly at all. It influences the type of interactions and deliverables.

Interview excerpts and codes (selection):

- “we are more kind of thought leaderships and research and development end of the spectrum. rather than like setting the policies for the outside world.” [P1] – *Codes: thought leadership, research and development, spectrum, function, positioning.*
- “it is called the ROOMEF cyclce ROOMEF stands for Rational, Objectives, Oprasal, Monotiring and Implementation, Evaluation and then Feedback. and it is a cycle that goes round, so all those words are in a diagram assembled as a circle with arrows pointing to each one. my job in the digital part of the whole of the debate and than in the context of the catalyst i described earlier on, is more at the kind of the early stage of that. trying to develop a rational, objectives, providing an aprasal of the options and then providing advice to minister or to colleagues that then provide the advice to minsters and then we don't really get involved in the implementation. so much of our work is a bit more early stage than that.” [P1] – *Codes: ROOMEF, work sequence, diagram, cycle. / positioning, areas / output, aims, work sequences, develop, advice, audience, provide / role, stage, positioning, work sequence, limitation.*
- “that was the case for the gov.tech catalyst idea where ian and I worked the idea up and then had a conversation with treasury where, they were obviously the department who would announce it, and we were just kind of responding to their questions about how we could adapt the proposal to fit with their needs.” [P1] – *Codes: output, responding, politics, proposal.*
- “but obviously our proof of concept does not take all considerations that are relevant to the you know the wide spread role of technology, but begins to spread light on its potential application. but that is fine. but that is all you can expect really. it is just one step along the

line of potentially adopting a technology. it is very, as i said, early stage R&D.” [P1] – Codes: *position, limitation, organisational like, proof of concept, consideration, expectation, relevance, spread a light, position*

- “because we are operating at such an early stage of the technology development process that most of the people that we are collaborating with are seem to see it succeed and are just flagging potential risks down the road but so far in our evolution we havent had to deal with. but i wouldnt anticipate spending us spending much on that sort of thing, we are the kind of team that would do a proof of concept and than pass it on to a team or department that is more well-resourced to deviler an experiment at a larger scale.” [P1] – Codes: *experience, collaborations, work sequences, ethos, adaptive, flagging / scale (of work), deliverable, proof of concept, consideration*

Interview excerpts and codes (selection):

- “we are more kind of thought leaderships and research and development end of the spectrum, rather than like setting the policies for the outside world.” [P1] – Codes: *thought leadership, research and development, spectrum, function, positioning.*
- “It is called the ROOMEF cycle. ROOMEF stands for Rational, Objectives, Oprasal, Monotiring and Implementation, Evaluation and then Feedback, and it is a cycle that goes round, so all those words are in a diagram assembled as a circle with arrows pointing to each one. my job in the digital part of the whole of the debate and than in the context of the catalyst i described earlier on, is more at the kind of the early stage of that. trying to develop a rational, objectives, providing an aprasol of the options and then providing advice to minister or to colleagues that then provide the advice to minsters and then we don't really get involved in the implementation. so much of our work is a bit more early stage than that.” [P1] – Codes: *ROOMEF, work sequence, diagram, cycle. / positioning, areas / output, aims, work sequences, develop, advice, audience, provide / role, stage, positioning, work sequence, limitation.*
- “but obviously our proof of concept does not take all considerations that are relevant to the you know the wide spread role of technology, but begins to spread light on its potential application. but that is fine. but that is all you can expect really. it is just one step along the line of potentially adopting a technology. it is very, as i said, early stage R&D.” [P1] – Codes: *position, limitation, organisational like, proof of concept, consideration, expectation, relevance, spread a light, position*
- “because we are operating at such an early stage of the technology development process that most of the people that we are collaborating with are seem to see it succeed and are just flagging potential risks down the road but so far in our evolution we havent had to deal with. but i wouldnt anticipate spending us spending much on that sort of thing, we are the kind of team that would do a proof of concept and than pass it on to a team or department that is more well-resourced to deviler an experiment at a larger scale.” [P1] – Codes: *experience, collaborations, work sequences, ethos, adaptive, flagging / scale (of work), deliverable, proof of concept, consideration*

Anne Spaa
Function: thought leaderships
Positioning: R&D end of spectrum.

Anne Spaa
Focus: internal policy (not outward facing policy)

Anne Spaa
Policy: theory of policy cycle, ROOMEF

Anne Spaa
Positioning: developing rational, objectives, options as advice for minister, do not get involved in implementation.

Anne Spaa
Function: expectation of proof of concept does not take all considerations into account. Spreads a light on potential

Anne Spaa
Role: flagging potential risks

Anne Spaa
Scope: after proof of concept pass project on to well-resourced team for larger scale experiments.

Reflection:

It might not be so much about where in the policy cycle a think tank aims to have impact, it is broader than that; think tanks might try to influence policy making indirectly, or compensate for a missing aspect within the system. It is more about the influence model, and how it influences greatly who you aim to influence, what role you take on, what you deliver, how you interact. The memo might become **Influence Model** and discuss the policy development cycle. From here, I will look more into the influence model quotes.

Interview excerpts and codes (selection):

- “if you are attracting shorter term projects, you are trying to influence policy on an ongoing then yes you have to be very much aware of the politics of the now so that you are able to be visible. so being visible, and i think this is a book by andrew rich, being visible is necessary but not sufficient for influence. it is helping to be influential, because if they when need something they might call you, but it doesnt mean that because you are visible or because the policy maker knows you they are going to call you. and a good example is the us congress, when the republicans have majority the heritage foundation gets more invites more committees when the democrats have the majority, brookings gets more invites to committees. so they both know they both exist but they are going to call the ones that are more related to, or aligned with [the related party]” [p5] – *codes: project length / audience, focus, context, visibility / literature, impact / political climate, comparison, example, us, visibility, media coverage*
- “it is relatively easy in some context to make a big impact. in places like the uk you probably have to come in with a lot of money so you make a lot of impact that way. because you would have to be noticed.” [p5] – *codes: context impact / money, visibility, reality.*

Memo example 2:

From **Policy Development Cycle to Influence Model** – Who do you talk to, what is the length of your projects, what do you research, how do you aim to influence, what is your deliverable, who do you send it off to, where in the policy cycle do you aim to have impact – your timing within the process, do you aim to influence policy directly. There is an element of being RELEVANT in order to have an influence model that works. The goal of an influence model is to have IMPACT?

Interview excerpts and codes (selection):

- “recognizing that yes there is a valuable place in society for people putting big ideas about the future, people thinking about what is the economy going to look like in 10,20 or even 5 years is quite a long kind of vision. but that is not enough in and of itself, you need to marry, couple that with active work on the ground.” [p6] – *code: observations of people’s ability / identifying something a thinktank needs to be able to do*
- “but you cant forget that you also need to be the change so we also very much have a focus on making change happen.” [P6]- *no code*
- “change is not enough to just write a good report and publish it and then be finished. we need to make sure that there is a second part of the project which is how we then start

to organise communities to really care to really one understand the proposal, own them so that there is a body of people continuing to work on the change after we finished working on it." [p6] – code: *problematic issues in that sequence, new sequence of work, goals of organisation*

- “. the organisers is this two way communication between us and local people and making it happen” [p6] – code: *roles they take on to support the debate*
- “and that is really unusual for at least projects here. normally we would finish at the end of the second phase, but here we have got a full six months just to kind of build the communities build the constituencies that will be able to lobby for this change to really happen.” [p6] – code: *change in work sequence/project structure.*
- “prior to that a year and a bit we had another ceo who was very much focused on that the root of change was through communities and then prior to him was another ceo that was just very much rooted in the much more policy side of things. we are going through a kind of shift. so mark who was our previous ceo he almost pushed us away from focusing on politics and policy as the way forward and very much communities is the way and i think now with meator we are starting to find that balance. we need to have both, if you are going to be successfull at making change happen you need to have to be influential in policy circles but you also need to be making the change happen today. i think that is where we are today, we are finding this nice balance between the two.” [p6] – code: *policy, change, prof. roots, leadership, elements to be successful, balance, focus, work challenge,*
- “because we are constantly challenging the range of ideas that are out there and trying to add sensible suggestions, just like we did on money we thought up different models of different currencies and commuity currencies and pushed them out and made them happen,” [p6] – code: *activity, outcomes, challenging status quo, freedom, organisational role*
- “we felt we have done the donkey work we have published respected publications and now we are kind of free to innovate and experiment without continuing to check what we are doing and knowing what we are saying.” [p6] – code: *expertise, publication, freedom, ethos.*

Reflection:

In order to keep your influence model ‘straight’ be clear about the ROLE you intent to take as an actor/organisation/(al) body.

Interview excerpts and codes (selection):

- “as of last week his name is patrick [vellans], prior to that it was mark [worpot] it has been a succession of senior figures appointed from the academic community or wider scientific community who advise directly the prime minister in cabinet on scientific issues and informing government policy development through that.” [p7] – *code: area, role, audience*
- “fundamentally is made by ministers and cabinet and not by officials. officials working directly to a minister on a given subject that is the kind of access for making policy and our job is to provide advice and support to [add]. we have a privileged position to step back a little bit and take a longerterm view, slightly free from the daily work of the ministers making decisions, making sure british citizens are safe, secure and happy financially... and all that kind of stuff.” [p7] – *code: role, context, comparison, difference*
- “we help people to think strategically about the future, but doing so basically means helping to admit that there is uncertainty and so the way i would frame it,” [p7] – *code: clients, role, thinking, impact, goal, uncertainty*
- “so our job is essentially to help people to make those decisions and use the evidence that we will have kind of generated about the levels of uncertainty and think strategically about it. it is not our call of which approach to take it is going to be the ministers who will have to make the call.” [p7] – *code: expertise, function, role, influence, decision making, limitation, power.*
- “so we generally think in terms of what does a future issue to the government's ability to deliver that?” [p7] – *code: ethos, approach, audience*
- “by virtue of being civil servants in the inside government we are easier to work with, we speak the kind of language of policy makers. people can share things with us within the governemtn system, so they dont have to go outside, so we can often by that critical frame on the inside of the organisation before people have to go outside and talk to others. so we can be a bit of a safe place for people to come. we also differentiate ourselves on the basis of specific expertise around relating futures to policymaking, rather than futures to other areas. so if you look at most other think tanks around the future or consultancies that do futures work, they are often working for companies. that is a large part of their bussiness. i like to think that some of our.. approach is our particularly good or kind of well-designed for policymaking. we have got things setup within the go-science, we have a very strong emphasis on evidence and kind of rigour and using independent experts to inform a process which makes it easier for people to bring us into a process .” [p7] – *code: expertise, difference, perks, ext/int communication, positioning, role, function, areas, audience, approach, focus, external expertise*
- “regardles of who they are, we are their to support them, we are part of their team if you like. we should be, our job is to support any government as they come in and that should

translate to them feeling 'right, regardless of their political views, they can get our advice!.' [p7] – code: *function, objectivity, advice.*

- “and there is some very strong code of practice set up in the civil service code around what is and isn't an appropriate role for a civil servant to be playing. fundamentally, ministers and their political advisors do Politics and civil servants provides neutral objectives and impartial advice to them. however, in order to and to provide good advice you are not doing the Politics. you are not doing Politics, but you need to understand the Politics in order to provide good advice and good impartial advice to government ministers.” [p7] – code: *limitation, role, deliverable, understanding politics*

Example of an initial theme.

Every theme is structured in the following manner:

BC – Broad Context

1) – Aspect one

2) – Aspect two

THM – Take Home Message

Quotes are documented with using the following structure:

[section of finding] [P, participant number] - [page number]

for example:

2.2 P6 – p12

or

3THM P4 – p2

In the following pages, I have collected multiple quotes to fit each of the findings/finding examples. I do not intend to use all of them as pullquotes, but want to use their words to write my sentences. So that also in my reflective writing, I use the data. I have not added the codes that are linked to these quotes, but they can help me find the right words of what I observe in what they say. For example their outward facing identity shows ...

In general, I have decided to not include the HCI researchers in the findings section for now. Only if the THM benefits from it, I did.

Initial theme 1: Think Tank-ing as a precarious profession

(BC) The development of policy is a complex process (as described before).

- (1) Making policy informing an equally, if not more, complex practice.
“You need to find out who to talk to, and then talk to them a lot” (HCI & Think tank quote). Because you are in competition with other TTs (“London Hub, precairment”) & time (“policy interest, policy shuffle”). Advice is to create visibility (“lead an orchestra, build a track record, get up early to be on the news”)

(2) But this does not mean that you will be listened to (“leading parties, small fish in big pond”) leading to a lot of uncertainty (“you can lose your expertise quickly, is this worth the money/time, who do you hire (roles)”) (THM) This uncertainty is something they have accepted to deal with and got used to (“..”). Also, because they know policymakers are generally in a similar situation of uncertainty (“pm are comfortable with uncertainty”). As HCI researchers says too (“...L...”)

Example quotes pulled in from interview transcripts:

- **P4 – p6** - we engage with, say, you've got sort three legs of policy. which are, obviously we engage with government and local government, we talk to offices and politicians in local authorities and combined authorities we just try and keep that dialogue going. it is kind of quite easy for me because i sit in the civic centre. i know the officers and i can to a very large extent and have coffee with them. but all of us try and do that, we keep dialogue with all of the lead officers in the combined authorities.
- **P4 –p7** informal conversations. i guess, to get impact you need to go into the formal conversations. probably exacerbating the informal, what will tend to happen is you will set up the formal so i mean literally yesterday, i met somebody in the kitchen, we got chatting, i mentioned some of the work my colleagues do and sure that is good, can we invite you for a meeting, because they are doing stuff that can be very useful for us. can [...] we come with ideas we then want people to take on.[...] so if we have got a report coming out, we will identify the politicians who either have the power, so with the one on skills we sent that to the education ministers who then immediately changed in a cabinet reshuffle [she says with tension in her voice]
- **P4 –p7** . it are often those mps who are really interested in personally and who write back to you. we like that. we sent to local politicians, so local civil servants we go around at speak at every event we can get our hands on.
- **P4 – p9** it is policy that impacts on people, so where that is that the case. also public and corporate policy might overlap. the only way we are ever going to get companies to really [cramp down] on age discrimination is legislation. however one of the things that would make legislation much easier is if you have got sway of corporate that are going like 'actually age discrimination costs you money' [...] follow the legislation it is an upfront costs but a longterm saving.
- **P4 – p10** so that is the influencing model and then there is the whole media messaging. social media is a big part of that.
- **P4 – p14** influencing is a much clearer priority for us and therefore we have got a lot more experience and expertise in doing that influencing.

- **P4 –p10** and then person to decided to have a referendum. and then suddenly nobody was interested in[.]luckily we hadn't started the primary research, we were due to literally start that the week after the referendum, so redid it. and then spent enormous amount of time with [deffra] trying to get on to michael gove's desk. the environmental secretry - he wasnt when we wrote the report because then there was the general election and everything. we thought we were getting nowhere and then suddenly he kept this speech and suddenly there was a lot of things that we'd said.
- **1BC P8 –p8** i mean it sort of depends on what you mean by changing policy as well. i mean, we were trying to.. i mean there is so many layers of policy and there is so many layers of legislation.
- **1BC P8 – p8** because lots of people say they work in policy but they write press releases. and they hold events in parliament and people come and eat a croissant and then go home again. you know, so it is funny one. it is a funny. it might be worth keeping an open mind about what policy is.
- **P8 – p12** yeah, i suppose in the way that. i mentioned things like policy pilots and things like that. i mean that is totally a design project but it is run by a group of policymakers instead of designers but it is the same thing. so i try to encourage both people, but civil servants that i knew and members of parliament that i knew to kind of think of things the kind of affinities i suppose. but yeah, but quite so much success i had in my job, was i good at it? you know, i dont know. i dont know. i dont know how i could measure that really.
- **1BC P5 – p15** think tanks are in the business of making recommendations of the allocation of resources, they are in the business of making recommendations about who wins and who loses. and that is political, that is the whole point of politics, right.
- **1BC P5 – p19** we are trying to encourage people to think of their work less in this linear way, a less structural way, less in this theory of change way, this logical framework.
- **P5 – p18** trying to make sure people see you, people notice you. people read your work and hopefully your argument is good enough, is relevant enough and timed well enough, they will pick it up.

Initial theme 4: Striking a balance: future thinking and everyday politics

(BC) Policy has a 'futures element' ("health/aging"). But think tanks are dealing with a stigma of doing blue sky thinking. There is a strong awareness of this stigma across the interviews the interviewees ("you don't want to skip a generation")

- (1) It is a challenge of the EBP culture to provide evidence based policy advice on the future. TTs interviewees spoke about the deliberate approaches they take to come to and communicate their advice on future (policy) mentioning how they use data from the past to "identify the likelihood of changes in the future based on the patterns in the

past". Role/aim "strategic forecasting" as part of policymaking practice, "multiple horizons/international examples as evidenced alternatives". Furthermore, adopting speculative approaches in design, that we use in HCI too to gain insight on (impact) of tech.

- (2) Politicians seem to value 'reality' over (speculative) futurism, as the interviewees mention "politicians want a name to a policy before they shuffle/change". "they want to see immediate results". Politicians are an essential part of the policymaking process as they are the ones to advocate for a policy and get it accepted for a policy to be implement.

TTs have their approaches to making their advice 'real' bringing the future to the 'here and now' "grounding their work in communities, being a think and do tank/developing proof of concepts". (conduct small scale trials to collect evidence to advocate for largescale implementation through policy/being generative rather than analytic) For example, universal income, block chain, gov.tech (internal digital policy change).

(THM) We contribute to speculative approaches such as 'structured envisioning' and have a specialtiy in generative research, bringing the future (of) technology to the here and now. The evaluating of use by participants bring a sense of reality that provide quantitative evidence in to decision making around the role those technologies may have in society.

Example quotes pulled in from interview transcripts:

- **4BC P4 – p16** this is something we are vert concious of. when we have a research plans, we look at different time horizons, because there is an enormous critizisms on think tanks of them being just bluesky thinkers, you are way into the future. and one of the things we do very specifically is look at what do you do in the here and now? what do you do now for 5 years? what do you do now for 20 years? and we quite specifcally, because that absolutely is a danger. if you don't have your here and now stuff you are not going to be relevant, and you are not going to have the influence with policy makers people in communities, bussinesses who need something to happen quickly.
- **P4 – p4** - we have lots of comparisons of germany, sweden, denmark, where you have got quite high degrees of devolution. i use french comparisons an awful lot because i think they are very interesting. i do a lot on education, so i use australia quite a lot, canada have quite high levels of state autonomy. i find myself talking about america a lot the last couple of weeks actually
- **P4 – p12** i think also very much require political action not political rethoric. make sure that your political rethoric is coupled to political action and will. [..]i mean a lot of think tanks are now calling themselves think and do thanks and actually getting more involved in specific action.
- **4.2 P4 – p 16** and it is interesing because it is a really difficult leap of faith for particularly politicians to take, because basically if a politician does something now which will have a

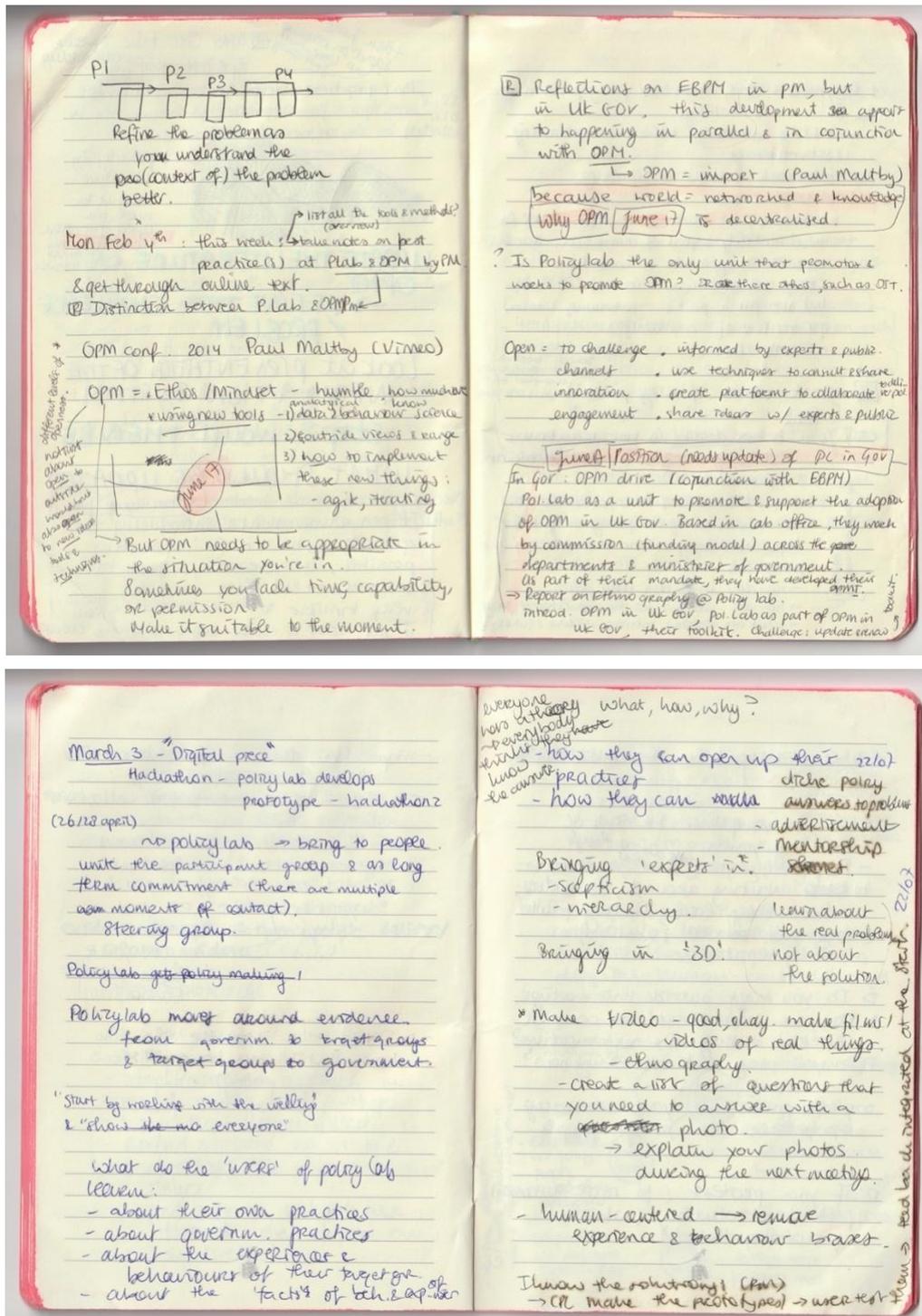
massive beneficial impact in 15, 20 years time they are not going to get the political benefits of that, because of their political cycle.

- **4.2 P6 – p2** one thing that was also important that we tried to not just label ourselves a think tank, for a lot of our history we have labeled ourselves a think and do tank. recognizing that yes there is a valuable place in society for people putting big ideas about the future, people thinking about what is the economy going to look like in 10,20 or even 5 years is quite a long kind of vision. but that is not enough in and of itself, you need to marry, couple that with active work on the ground.
- **BC P6 – p6** we need to have both, if you are going to be successful at making change happen you need to have to be influential in policy circles but you also need to be making the change happen today. i think that is where we are today, we are finding this nice balance between the two.
- **4.2. P6 – p2** it is really important for us not to be just focused on the kind of on the big picture, the long vision, we must go to politics, parliament like, that is where change happens. yes that is an important one avenue where change happens. that is where you get the big changes in some ways, but you cant forget that you also need to be the change so we also very much have a focus on making change happen.
- **4.2 P6 – p9** one of the rational responses was how can we make ourselves more relevant its by making us more here and now and so that is why communities became the focus, there was a big desire from funders to see real impact on real people. part of the rational for the change was driven by this idea that that somehow funders were leaving this blue sky thinking world and were much more focused on actual impact, which is.. the same is happening at univeristies. which has been a real benefit to us actually, the universities having to seek impact..
- **4.2 P8 – p10** - yeah kind of and just sort of saying, well if you are going out and speaking to users and then you are pilots and like policy pilots and things like that, that is design research.

Example analysis process Study 2

Included in this appendix are examples of coded fieldnotes, reflections and a draft theme. These are brought together to illustrate the analytical process of analysing the data from the participant observation conducted at UK Policy Lab.

Examples of fieldnotes from notebooks:



Example of coded fieldnotes made during participant observation at UK Policy Lab

- **Work Dynamic** - *"My first experiences - My first two weeks were about getting my head around what Policy Lab does, what their position is within Cabinet Office, who they work with (many!), and what their ways to their best practices are. Work was 'on' from the first hour. After two days, it was clear; the pace of work and the ability to multitask is immense at Lab. Such a small team, processing such an amount of work is impressive."*
- **Communication Style** – *"Communication and practice are, of what I have seen, always reciprocal. Communication is clear, direct, up to date, fast and to everyone involved. The approach is 'being flexible' in many different ways: joining other team members in interviews, meetings, preparations of activities and reflections on how to do things the best way possible."*
- **Documenting** - *"A lot of the materials Policy Lab produces during the process are 'memoria' of the thinking within the project team at that time. The filled-out assignments capture the thoughts of policymakers and stakeholders going through the process."*
- **Collaboration** - *"Policy Lab always work with a policy team. A policy team often exists of three policymakers. Policy Lab tends to work with three of its employees on a project. I have not witnessed a policy team meeting Policy Lab at their space. They might meet on the same floor, or close to the desks in one of the meeting booths. In my experience, the policymakers involved in a project with Policy Lab will at some point during the project visit 'Lab' but it is not the 'hub' to meet for the project."*
- **Design in government** - *"Service design in UK gov = big! Government Digital Services (GDS), User-centered design community (UCD) and sub: accessibility community, content comm, design comm, user research comm. There are 3000 designers at work in uk gov. UK gov identifies six types of designers in gov (in 2016: <https://designnotes.blog.gov.uk/2016/04/22/the-different-types-of-design-in-government/> "*
- **Co-creation** - *"Co-creation based on evidence."*

Examples of reflections

- *"All of Policy Lab (except for the ones without security clearance, which included me) have a x-gov pass. This pass allows them to go pretty much every civil service building, allowing them to move freely between different departments. Not everyone in the civil service has a x-gov pass, and so some (I don't know how many) can only access other departments by invitation."*
- *"Policy Lab mediates between policymakers and users, synthesising and analysing what is said by users to present to policymakers."*

- *“Does policy lab design policies? Or does policy lab with policy makers to look at routes of implementing ideas that are in policies? Does this need to be reviewed for re-assurance establishing common ground between policy lab and policy team: The actual policy is not done by policy lab. This gets slightly confusing for the policy lab as well as the policy teams they work with:*
- *Policy Lab takes on projects as a collaboration with a policy team. Policy Lab conducts the user research, brings the evidence/insights into the session, and then what happens is that the policy team (from a government department) [sort of] thinks that policy lab will do the project for them instead of the policy team doing the actual policymaking work.”*
- *“How does policy lab sit within the policy making process and how much impact does their work have? Policy Lab work is not part of the delivery/implementation phase of policymaking / the work of policy lab strong link with consultation process pre-engagements (as insight taken from the young people consultation project). There is a gap between policy-document -> policy document -> delivery/implementation.”*

Example of early thematic grouping of fieldnotes

Theme 1: Collaboration between policy lab, policymakers and other stakeholders (multidisciplinary). Design-led collaboration (co-design)

Policy Lab mediates between policymakers and users, synthesising and analysing what is said by users to present to policymakers. This plus the input from policymakers lead to prototypes, back to users in usertesting phases. Policymakers are invited to join in the user testing with policy lab.

First two weeks of placement - I got to see how Policy Lab, being part of cabinet office, benefits from being part of that world: they understand the constraints, practice and language of policymakers. They have access to projects that are not yet ready for the outside world (and have the chance to influence them!), and their X-gov (read: cross-government) pass lets them in every government building, enabling them to get to and bring together people and teams in a way that opens up their policy making processes (for example, the youth engagement project).

During the co-design stage of the process, policy lab aims to get the Policymakers involved as much as possible, to make them comfortable with the tools, understand and approach the user.

Anecdote 1: Working backwards

Bypass policymaker habits; tools to prepare policymakers to involve citizens (acknowledging you are not the only expert), tools to create empathy (against bias), tools to analyse the problem (not to jump to conclusions), evidence safaris (to prevent bragging). Outcomes: memoria

Evidence cards are never presented on itself. They use them to prevent evidence boosting on what the policymakers know. They can do that in response to the evidence cards to which they can add. All the evidence is in the common space, everyone shares the same evidence. Combining evidence cards with thinking about the problem ensure connection between evidence and the problem.

PolicyLab's evidence cards: because it is 'evidence-based' policymaking, evidence is understood as best practice, experiences and behaviour (reality), to prevent biases; when your action is based on biases/assumptions.

“Get the problem right at the start”.

Policies try to be a solution to a problem, which makes them focus on identifying the problem as quickly as they can so they can spend their time looking for solutions. One of the things Policy Lab aims to do is to make policymakers realise that designers spend most of their time looking at the problem, trying to really understand it, iterate on it and then come up with solutions that simultaneously give a better idea of what the problem is, which then might lead to a changing of the 'solution'. Lab tries to help policymakers understand problems, so that they can work backwards.

Policy lab: often have to work backwards, against the direction of the wheel (this is hinting at the idea of the double diamond and that most of the policy projects they work on, the policy team sits in the middle between the two already - assuming they know the problem they should solve and have some ideas on how to solve it. Policy Lab aims to bring the team back to the start of the first diamond. For that they need the stakeholders to re-investigate and challenge the problem they think they need to solve.)

Example analysis process Study 3

In this appendix, examples from each of the different analysis phases are brought together to illustrate the thematic analysis process of the data from the journey mapping interviews with policymakers.

Phase 1 - Example of analysing use of visual metaphors

Step 1: Coding direct use of the metaphors in the interviews

Step 1a: Pull sections from transcripts that make direct use of metaphor

Step 1b: Summarise pull quotes into codes capturing how metaphor is used by policy maker participant

Use of visual metaphor 'Evaluate':

- **Evaluation when project is a pilot (P02)** - P02 Depending on what the project will be like, there might be an evaluation (**black**), because it is still all a pilot. Then that it gets developed, expanded, and then it will have to go through all of this again, with ministerial approval and so on. "Because it is still a pilot project."
- **There is a 'final' evaluation (P02)** - P02 Depending the outcomes of the final evaluation: should it widen the scope or narrow it down.
- **Evaluation focused on external usage determines whether or not pilot has failed (P02)** - P02 Interviewer suggests that we is the 'weighing scale', it think that you are **validating two types of evaluations** here, with the policymakers and the young people. "to some extent it was about how it was received, how much attention it gets, that can then influence that decision-making." "number of users, and what is the policy response to it but then also political and stakeholder response, but also youth organisation's response to it." These are "factors that might influence that it does not get closed down, in cynical way." "If it comes out, and everyone is like 'wow this is amazing, a new form of government', even when the pilot did not go so well, the moment around this idea, we know that this did not work, but we could try it in a different way". (24") "But when it all took place under the radar, and no one was bothered by it anyway, and it failed."
- **Differentiation between 'small' and 'actual' evaluation in the process (P03)** - P03 "After the testing, this is the bit is where it went straight to policy lab. And they were doing, or at least I assumed that what they were doing was, 'analysing' [writes down] I'm putting 'evaluations' there, but small [adds 'small' to sticker]." **The actual evaluation is later.** "Final / concrete idea."

Use of visual metaphor 'Concretise':

- **Approval may be a significant part of the concretising activity as 'you are a little bit more set on what' needs to be done (P02)** - P02 Let's put **exploring** is still happening here as well. **Exploring** what this route (of the policy project) needs to be based on that **analysis** (of all the reports). Then the **concrete** thing here, because once you got approval you are a little bit more set on what you need to do. "I'm going in a bit of a random order."
- **Approvals are a significant part of the decision-making process when concretising. E.g. approving bidding grants (P02)** - P02 Where would be the bidding taking in place in the process? If the platform goes up for bidding.
"That is in this bit..." Would that be a bit of concretising then again? "Oh yes, It would add a decision."
"Sorry for not being very helpful. It just makes me aware of all the things I need to think about!"
- **Ideas in development might need to be concrete.** P03 "So what needs to happen now" looks at sticker sheet "first thing that needs to happen, green, probably around here [puts it down], we need a final design session [writes down] with key stakeholders. [writes] From there a sort of 'narrow down' with all the ideas that have come through, [...] we should have a few 'concrete' ideas [sticker] of what we need. [...] and then, we would need to [...] 'widen out', I'll put 'yellows' down. If you can write down yellow is all the government needs to get things running, so other departments. Once we have got their input.."
- **Concrete ideas are aimed at (P03)** - P03 "After the testing, this is the bit is where it went straight to policy lab. And they were doing, or at least I assumed that what they were doing was, 'analysing' [writes down] I'm putting 'evaluations' there, but small [adds 'small' to sticker]." The actual evaluation is later. "Final / concrete idea."
- **A way to concretise the policy is by understanding the public statements that could be made to 'demonstrate government's commitment to solve the issue' (P04)** - P04 After that, they describe they did [looks at the metaphors and chooses] 'exploration', they "went out and did stakeholder engagement [...] focused on" "setting direction, what kinds of interventions would they be able to put in place that aren't final solutions" but which "demonstrate the vision", "highlight areas of focus, future focus", "that became a bit more 'concrete' [picks the sticker]" which was about "what kind of public statements we could make that would demonstrate government's commitment to solve the issue and alongside that there was, that was one track." "The two things they ended up with at the time that I was leaving, one was a statement of intent, a joined statement from

the DfE and a number of key stakeholders in the education sector setting out this is an urgent problems” and this is the steps and actions to address them.

- **Concretising may be done when externals to the team become involved in the process.** (P05) - P05 Interviewer brings it to the stickers, suggesting that the work with the operations is ‘concretising’, to then mention that the participants are free to pick up a pen and write along.

Phase 2 - Example of writing memos

Step 2a: Bring codes together per metaphor

Step 2b: Write memos on how each of the metaphors is reflected upon by the participants

Memo on use of visual metaphor ‘Validate’

- Policy pilots might be validated through the evaluation of its uptake and how it is received by externals; organisations, users, but also media (P02)
- Validation of choosing a particular type of policy interventions can be focused on ‘historical success of targets as an intervention’ (P04)
- Validation might be done to show that the intent is executed, e.g. showing that it is not just theoretical but it is actually made happen through for example a test / pilot (P07b)

The choice of ‘government intervention’ (lever) used to respond to a policy issue is a central decision in the policy formulation stage. What seems to show through the participants’ narrative is the role of ‘validation’ of the chosen lever. The validation, as mentioned by the participants, can be of theoretical or practical nature. When the validation takes part during the policy formulation process, it seems to be of theoretical nature focusing on the existing precedent of the chosen government intervention (P04). Validating the impact of earlier implementation of that lever enables the policy team to argue for the appropriateness of their choice in the context of the policy issue they work on. Validation in practice – of practical nature – appears to take place outside the policy formulation phase. This may be a validation of the implemented policy, focusing on how it is received (maybe more so than validating its impact) (P02), or to validate that the intention of the policy is not ‘just theoretical but is made happen’ (P07b).

Memo on use of visual metaphor ‘Abstract’

- The initial policy problem might be abstract (P03)
- The aim is to go from abstract to concrete (P03)
- Abstraction might take place after exploring, before a prioritisation exercise might be done (p08b)
- Abstracting might be more likely to happen in an open policy project, a fixed question might ‘close in’ more immediately (P08a)
- Abstracting might be making sense of / extrapolate the gathered evidence around a particular issue (P08b)

- Abstracting and synthesis might be considered similar activities (P08b)

A central aim in the policy formulation phase is to concretise the ideas for policy intervention (P03). At the start of this phase the policy seems to be relatively abstract, as evidence around the policy context and problem has been gathered (P03). The ‘extrapolation’ and ‘sense-making’ of the evidence seems to be the main ‘abstract’ activity during the policy formulation phase, taking place at the early stages of the policy formulation process (P08b). A nuance in the use of abstract in the narrative across the participants may lay in the type of policy project they reflected on: When the project concerns more open – e.g. strategic – policy, there seems to be more room for ‘remaining’ abstract (P08a).

Phase 3 - Example of identifying initial themes

Step 3a: Find higher level themes that arise from combining several memos

Step 3b: Highlight elements in memos and find critical question. (Theme 1, Theme 2)

Theme 1: An internal facing phase of the process

- **Approval**
- **Criteria**
- **Priorities**
- **Convincing**
- **Evidence on chosen intervention**
- **In line / at tension with government programs**
- **Validation**
- **Evaluation**
- *Critical question: Is there a focus on whether the intervention is the appropriate one? Is there a human-centeredness perspective?*

Evaluate - *Participants reflect on how the ‘evaluation’ of a policy idea focuses on how it sits amongst other policies and how it relates/responds to constraints and priorities within government (political appetite) (P04). An **evaluation of an existing policy** may be the initiation of a policy formulation phase to make changes to the existing policy (P04, P05b, and P07b). It seems to be common practice to set up a list with **criteria** to evaluate the policy idea against (P02 and P04). This part of the process is set up to narrow down to the next phase of the process and focuses on the **nature of the evidence** (P08a) and whether it is **in line or tension with current government programs and policies** (P04).*

Validate - *The choice of ‘government intervention’ (lever) used to respond to a policy issue is a central decision in the policy formulation stage. What seems to show through the participants’ narrative is the role of **‘validation’ of the chosen lever**. The validation, as mentioned by the participants, can be of theoretical or practical nature. When the validation takes part during the policy formulation process, it seems to be of theoretical nature focusing on the existing precedent of the chosen government intervention (P04). Validating the **impact of earlier implementation of***

that lever enables the policy team to argue for the appropriateness of their choice in the context of the policy issue they work on. Validation in practice – of practical nature – appears to take place outside the policy formulation phase. This may be a validation of the implemented policy, focusing on how it is received (maybe more so than validating its impact) (P02), or to validate that the intention of the policy is not ‘just theoretical but is made happen’ (P07b).

Broaden / Widen - According to the participants, in the policy formulation phase activities focus on becoming more concrete. A common practice seems to divide major policy projects into specific work strands (P04). When working in one of such strands, participants reflect on how they may need to broaden their view and be aware of other strands, and wider policy programs (P04, P05a, P05b, P07 and P08b). Simultaneously, there seems to be a broadening up of those involved in the process of evaluation and validation (P03, P04, P05a, P05b, and P08b). This may change the focus of the narrative: From exploring ideas through their work, participants describe how they need to ‘convince’ externals of their plans (P04, P05a and P05b, and P07). In the policy formulation, a second form of widening up seems to be done through the gathering of evidence at two places in the process: Gathering evidence around the context of the policy problem and around recommendations and solutions for that context (P08a and P08b).

Explore - Participants describe how they ‘explored’ the next steps of their process, which they seem determine in relation to required approvals (P02 and P07a). What may be explored, seems to be influenced by what has been approved (P02).

According to the participant accounts, the exploration of ideas seems to be done by exploring existing solutions and recommendations (P04), focusing on their feasibility and mostly paper-based (P03). This may be done as the impact of policy may take several years (P04). Exploring new initiatives may have roles such as ‘demonstrating vision’ before solving the problem (P04), ‘statistical modeling’ to speculate on potential impact (P05a), or a ‘pilot project’ to inform further policy work (P02).

Analyse - Participants reflect on the involvement of an ‘analysis team’ in the policy formulation phase (P03 and P05). This team might work external to and in parallel with the policy team, and has a role to ‘monitor, evaluate, and analyse’ as well as ‘collating’ evidence on the policy topic (P03). This may be real-time monitoring of existing policies and the potential impact of possible changes (P05), or an evaluation of existing policies that use the same policy lever (P04). When a policy project works with different strands, analysis may focus on bringing the evidence from the different projects together (P02). When a policy project focusses on existing policy, analysing of new evidence may inform the evaluation of the policy problem. From the participants’ reflections, it may be understood that the orientation is macro or broad-based, in contrast to Policy Lab’s bespoke analysis of the particular (P08a). The nature of ‘analysis’ activities may predominantly ‘internal-facing, literature based and closed’ (P08a) generally relying on existing evidence (P05b, P03, and P08a).

Participants describe how stakeholders, often internal to government, are involved to **analyse whether existing policies have been missed in the current idea** (P03). There, again, might be specific **'impact' teams** available to the project to perform this activity (P05b). There does not seem to be a precedent of analysing 'policy tests' that might have taken place during the policy formulation phase (P08a), revealing that the development of ideas in policy **formulation is not practice-based**.

Phase 4 – Developing narrative of initial themes

Step 4a: (Not visible in this document) Bring together highlighted sections and identify which illustrate themes and subthemes

Step 4b: Create skeleton for narrative, outline themes and place remaining sections into outline

Theme 1: An internal facing phase of the process

[intro] **Evaluate** - It seems to be common practice to set up a list with criteria to evaluate the policy idea against (P02 and P04). This part focuses on the nature of the evidence (P08a) and whether it is in line or tension with current government programs and policies (P04).

Explore - Participants describe how they 'explored' the next steps of their process, which they seem determine in relation to required approvals (P02 and P07a).

Narrow Down - criteria that may be common, predefined, and siloed (P04 and P08a), determined by the policy team internally, and informed by government priorities (P08a).

Validate - What seems to show through the participants' narrative is the role of 'validation' of the chosen lever.

[1a] **Validating** the impact of earlier implementation of that lever enables the policy team to argue for the appropriateness of their choice.

Evaluate - An evaluation of an existing policy may be the initiation of a policy formulation phase to make changes to the existing policy (P04, P05b, and P07b).

Analyse - Participants reflect on the involvement of an 'analysis team' might work external to and in parallel with the policy team (P03 and P05).

This may be real-time monitoring of existing policies and the potential impact of possible changes (P05), or an evaluation of existing policies that use the same policy lever (P04).

The orientation is macro or broad-based, in contrast to Policy Lab's bespoke analysis of the particular (P08a).

The nature of 'analysis' activities may predominantly 'internal-facing, literature based and closed' (P08a) generally relying on existing evidence (P05b, P03, and P08a).

This may be a validation of the implemented policy, focusing on how it is received (maybe more so than validating its impact) (P02), or to validate that the intention of the policy is not 'just theoretical but is made happen' (P07b).

Analyse - Policy formulation is not practice-based.

[1b] Simultaneously, there seems to be a **broadening up** of those involved in the process of evaluation and validation (P03, P04, P05a, P05b, and P08b). This may change the focus of the narrative: From **exploring** ideas through their work, participants describe how they need to 'convince' externals of their plans (P04, P05a and P05b, and P07).

Synthesise - On the other, the participants seem to focus 'synthesis' activities on getting an overview of the context and position of their policy project: A) To understand what other work taking place across government is related to theirs; B) How their policy project may be split up into different strands of work (P02).

Participants describe how stakeholders, often internal to government, are involved to analyse whether existing policies have been missed in the current idea (P03). There, again, might be specific 'impact' teams available to the project to perform this activity (P05b).

[outro: appropriateness of the idea, human-centered > needs closer look into how the idea develops while going through this phase]

Critical question: Is there a focus on whether the intervention is the appropriate one? Is there a human-centeredness perspective?

Phase 5 – Refining themes

Step 5a: Go back to all raw data (including interview 01, 06, 09).

Pull quotes from interviews that relate to (or break?) the themes/skeleton.

Step 5b: Refine writing of themes by creating skeleton / bullet point writing of thematic narrative.

Theme 1: An internal facing phase of the process

[intro] Evaluate - It seems to be common practice to set up a list with criteria to evaluate the policy idea against (P02 and P04). This part focuses on the nature of the evidence (P08a) and whether it is in line or tension with current government programs and policies (P04).

Explore - Participants describe how they 'explored' the next steps of their process, which they seem determine in relation to required approvals (P02 and P07a).

Narrow Down - criteria that may be common, predefined, and siloed (P04 and P08a), determined by the policy team internally, and informed by government priorities (P08a).

Validate - What seems to show through the participants' narrative is the role of 'validation' of the chosen lever.

P09: "Because most of the problems that we deal with in the civil service are not binary and simple - when I build this solution it will solve this problem. It is about the sum of these things and the way in which different actors respond to these different things."

P08b "I think there is the 'value for money' as a criteria, stakeholder views, deliverability, risk. What risks might be related to the options. Impact assessments depending on what it is, quality impact assessment for example."

P05b "a lot of policy thinking is based on cost"

P04 "After the handover there was a period where the team were [Writes down next to that] focusing on what would have most impact in time and resource [constraints], context and constraints."

Prioritisation is about relative importance - P08b: "I would consider abstraction to be; if you got a massive data, how do you sort of extrapolate up from that massive data into something that makes sense. Making sense of lots of data, that could be themes. Is prioritisation a form of abstraction? No. I think abstraction for me is about making sense of the data." P08a: "Before making a value judgement on.. Would you say that prioritisation is a judgement about ..." P08b: "... relative importance" P08a: "... whereas abstraction is more of a neutral assessment." P08a "I think it was a huge difference, I came up with a list of priorities, criteria that I would have used to decide how to narrow down to the next stage of the project. And I did that using the same method that I would have done in policy, which is based on things like 'impact, size of audience, strength of research' but then in policy lab I realised that those criteria were already siloed categories and that even the kind of framing of the research, the big data, was already in demarcations that weren't neutral.

P04 "When they left, the team were probably halfway the timeline, when they were starting to 'nail down on some of their strategic priorities, rather than the front-line delivery'."

P03 - This was interim 'analysis'. And that was with other teams, from other departments. To get their ideas and feedback in as well, which policy lab took on." Why? "We mostly did it to see if we needed anything else with these ideas to carry on. Whether we had missed a department or a piece of legislation. So mostly to make sure that we didn't end up here and missed something. So that was the main idea of that. [writes down:] make sure that policy team hasn't missed anything, legislative or .. actually the other thing: IT-based, or problem. Because something was a potential change on a computer system. [...] It was about checking the tech."

P02 - Indicates some few significant in the future of the process in developing the idea into an implementable policy (**black sticker**). The participants foresees "a series of permission:" Then they have to get approval from ministers to continue, to implement. Before that moment, there will be internal moments of approval, but the one with the minister is the main one. What will be implemented is still a bit unclear. It needs an external provider to develop a website or platform, that would require another decision point (**black**), to contact different providers. Once they know who is going to build it, they might have to go back to the minister (**black**). There might be another minister approval.

[1a] Validating the impact of earlier implementation of that lever enables the policy team to argue for the appropriateness of their choice. NOT JUST VALIDATING BUT CONTEXTUALISING IT WITHIN (the constraints of) GOVERNMENT

Evaluate - An evaluation of an existing policy may be the initiation of a policy formulation phase to make changes to the existing policy (P04, P05b, and P07b).

Analyse - Participants reflect on the involvement of an 'analysis team' might work external to and in parallel with the policy team (P03 and P05).

This may be real-time monitoring of existing policies and the potential impact of possible changes (P05), or an evaluation of existing policies that use the same policy lever (P04).

The orientation is macro or broad-based, in contrast to Policy Lab's bespoke analysis of the particular (P08a).

The nature of 'analysis' activities may predominantly 'internal-facing, literature based and closed' (P08a) generally relying on existing evidence (P05b, P03, and P08a).

This may be a validation of the implemented policy, focusing on how it is received (maybe more so than validating its impact) (P02), or to validate that the intention of the policy is not 'just theoretical but is made happen' (P07b).

Analyse - Policy formulation is not practice-based.

P09 : "Where we can do that [open policymaking] most effectively, is often where we are designing a new service. Where there is a gap. The hardest place is where there is often where there are existing services, something existing is in place, your policy initiative has to dock into a set of existing policies and that can often place constraints around the choices that you can make. I think that is the space where it is hardest to keep that open approach alive."

P08a "How do you turn your evidence gathering around solutions into tangible options? I think a lot of it, we used to look at think tank reports and look at their recommendations. We used to have tables of recommendations from think tanks. What solutions are out there. So there is definitely a phase of '**turning evidence into options**'. I probably think this is the weakest phase, or at least the least thought-out stage. I think this is where academia does not pool enough on its weight as well. You read a lot of evidence around a problem, but then at the end of a report you get two suggestions for how to turn into action, which has nothing to do with the evidence that has been found. They are just as good as a guess as you would get reading the report. **There tends to be a lot less evidence about the interventions.** In my previous job there was very patchy evidence around the issue but very little evidence around the solutions. Which makes it really hard how to turn things into options."

P08a "I would have more classic think tank papers, a report with recommendations at the end. But I would also have used the 'what-works' network and website and look into their evaluations and bring that all into my understanding. The difference might have been secondary – tertiary evidence, you are not doing the research yourself"

Ethics Application and Amendment Approval