



AHRC DESIGN FELLOWS CHALLENGES OF THE FUTURE



PUBLIC POLICY

JUNE 2020



Arts and
Humanities
Research Council



Cardiff
Metropolitan
University

Prifysgol
Metropolitan
Caerdydd

CONTENTS

1. INTRODUCTION

2. OVERVIEW

3. SKILLS

4. RESEARCH

5. PARTNERSHIPS

6. RECOMMENDATIONS

7. APPENDICES

INTRODUCTION

This scoping research focuses on the use of design by government in the policy process (*design for policy*) as well as the use of design by companies and other stakeholders as part of multiple policy agendas (*design in policy*). The purposes of this review are to influence future funding agendas in UK Research and Innovation (particularly the Arts and Humanities Research Council - AHRC), map the current research landscape and skills provision, showcase UK research on design and policy, foster future collaboration between academic institutions and government, create a case to government to invest in design for and in policy and make a series of recommendations to UKRI, government, business support organisations and academic institutions. This project has been conducted intensively from March to June 2020, commissioned by AHRC, in parallel to other initiatives on design research for place, future mobility, artificial intelligence, clean growth and public services. This research is based on 49 online interviews including 24 government policy-makers at national and devolved levels, 19 academics and six other stakeholders. Interim findings were sense checked in two online workshops with 75 government and 13 academic representatives and validated through a peer review process with ten experts. For more information about research participants see list in the appendices. This report focuses both on design for policy (i.e. how design is used by government in the policy process) as well as design in policy (i.e. how to encourage the use of design in companies (and wider society) as part of policy agendas like innovation, creative economy, circular economy, digital or health). A major theme in this report is the collaboration between UK higher education institutions and government, particularly policy labs. UK academics and policy-makers are currently contributing to research and practices on design and policy in a number of contexts particularly:

- Policy Design Models, Toolkits & Evaluation
- Rethinking Public Engagement & Consultation
- Rapid Policy Prototyping
- Speculative Design
- Developing Design Policy & Action Plans
- Design Support Programmes

Key findings:

- There is growing interest in government on what design can achieve for policy-making and priority agendas like innovation, digitalisation, circular economy and health.
- There is no figurehead for design leadership in government like a Chief Design Officer.
- There are a number of globally renowned experts in design research and policy but no institutions putting this field of research front and centre in the way they are with service design, social innovation or design-led innovation.

Design for Policy (use of design in government)

- Design for policy is an emerging yet growing field of research and practice that currently lacks strong conceptual, theoretical, epistemological, methodological and empirical groundings.
- Whereas the 'user' is the starting point of public service development (GDS Service Standards), the 'user' is not the starting point of public policy development in the UK.
- Academic institutions are an underused resource by government policy teams and labs in terms of research and consultancy mostly because government is unaware of what universities can offer with regards to design and policy.
- There is limited formal education in design for policy and thus a skills mismatch between supply in universities and demand in government, which is growing.

Design in Policy (use of design in enterprises and wider society)

- Design approaches are being embraced by companies that are innovation leaders but are not being harnessed by the wider enterprise base.
- In the UK, design is part of the remit of all the devolved nation's business support landscapes. In Wales and Northern Ireland design support programmes are currently EU funded so it is unclear what programmes will look like after this round of EU Structural Funds. In Scotland, in 2020, dedicated design support programmes were integrated into a streamlined innovation support offering. In England, design support is fragmented, delivered by a number of key players including Innovate UK, Design Council and Design Museum, among others.
- UK academic institutions have been conducting research on and even delivering design support programmes directly to businesses for over 20 years but the design support landscape across the UK lacks continuity and is difficult for companies to navigate.

Recommendations for capitalising on or counteracting these findings can be found in the final section.

Dr Anna Whicher, Head of Policy Design
PDR – Cardiff Metropolitan University

OVERVIEW

Influencing policy content and the process of policy-making is considered one of the gold standards of design research. When exploring the domain of design and policy, there are some vital delineations to make. It is crucial to differentiate between design influencing the content of policies such as, for example, innovation, health, creative economy, circular economy or digital policy (design in policy) and design influencing the process of policy-making (design for policy). It is also possible to have at their intersection, the idea of policy for design by design. This review will first deal with design for policy, which is the greater focus of this report and subsequently with design in policy.

Glossary

Design – A creative, user-centred approach to problem-solving in divergent and convergent phases.

Design Research – Research ‘into’ design disciplines and/or ‘by’ design methods.

Public Policy – A rational approach to problem-solving resulting in a set of guiding principles for how the government acts in relation to public issues.

Design for Policy / Policy Design – A creative, user-centred approach to problem-solving engaging users, stakeholders and delivery teams at multiple stages of the policy process.

Policy Lab / User-centred Policy Design Team – A multi-disciplinary government team using a range of innovation methods, often including design, to collaboratively involve the public and stakeholders in jointly developing public services and public policies.

Design Policy – Government vision or action to stimulate the supply of or demand for design in a city, region, country or continent sometimes articulated with a design action plan.

Design Support Programme – Government interventions to encourage demand for design in companies (society and the public sector) or the supply of design expertise through mechanisms such as mentoring, capacity building, grants, vouchers, tax credits or financing programmes.

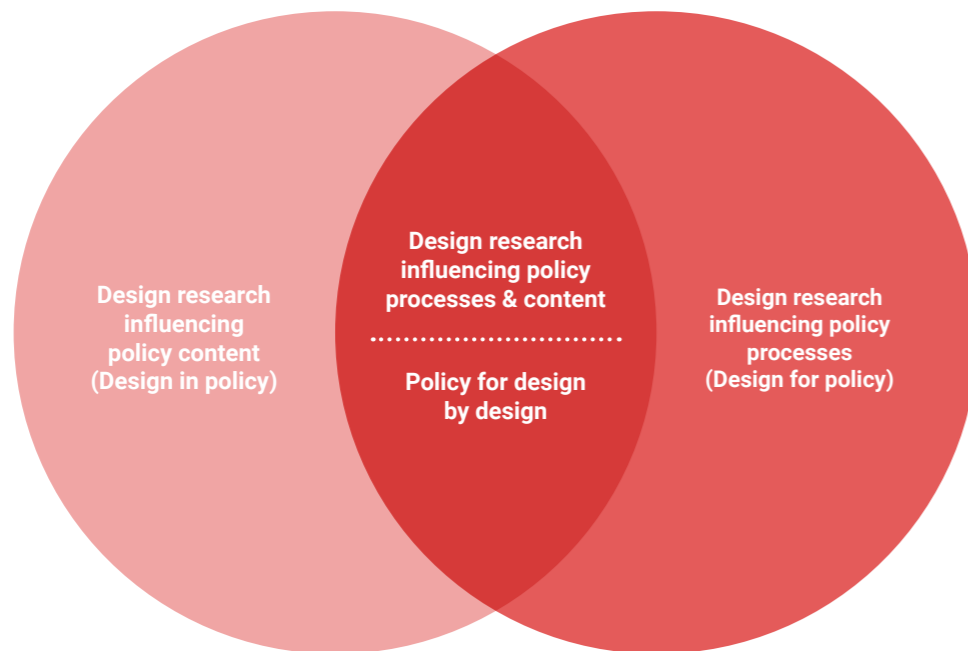


Figure 1: Delineation of Design and Policy Research

DESIGN FOR POLICY

Design, of course, is a practice-based discipline; however, intriguingly the practice of applying design approaches by government is far in advance of academic theory on the added value of a design approach in policy. A substantial bank of knowledge exists on ‘policy’ and ‘design’ as separate concepts but a limited (yet growing) body of academic theory and scholarly knowledge exists at the intersection between the two concepts that is ‘design for policy’ or ‘policy design’ (Bason 2014:3; Junginger, 2014:57; Kimbell, 2015:3; Williamson, 2015:252; Mintrom and Luetjens, 2016:391; Whicher, 2017:8; Blomkamp, 2018:730; Kimbell and Vesnić-Alujević, 2020:2). For Bobrow (2012:75), ‘unlike policy analysis, policy design shows few of the trappings of a professional community’ yet, it merits attention because of its implications. Amatullo (2014:152) describes design’s application to the policy process as ‘slowly coming into focus in an unmapped frontier’. While designers and governments have been applying design principles to public sector services since the 1960s (Sanders and Stappers, 2008:5; Puttick et al., 2014:13), the application of design to public policy has only gained traction since the late 1990s (Bason, 2014:3; Howlett, 2014:199), particularly in Policy Labs (Vaz and Prendeville, 2019:143; Olejniczak et al., 2020:89). Design for policy is a nascent but fast growing research field to the extent that if this review were being conducted in just two years’ time the research landscape would be very different and far more developed. There are many parallels between design processes and policy processes but also some stark differences. Both are approaches to problem-solving, both operate in reflective cycles, both ideally involve users and both are omnipresent having significant implications on our lives but are generally invisible to the general public. Design is a creative, user-centred approach to problem-solving (Brown, 2009; Christiansen and Bunt, 2014:41;) while policy is a rational approach to problem-solving (Howlett et al., 2009:12; Junginger, 2014:57).

Policy is ubiquitous (Bobrow, 2012:75; Taylor, 2014:11) and design is ubiquitous (Siodmok, 2014b:28). There is currently a significant lacuna in strong conceptual, theoretical, methodological and empirical contributions at the intersection of design research and policy practice. This report in turn is an attempt to pull together current research and practice in this emerging domain in order to provide a future trajectory for further, more rigorous development.

Various iterations of a map of the design research landscape (Sanders and Stappers, 2008) have been developed over the last decade where more than 20 distinct design research areas can now be identified (see figure 2). The map of the design research landscape is characterised by a gradual paradigm shift from the ‘user as subject’ with user-centred design approaches to the ‘user as partner’ with co-design approaches such as service design and policy design. Policy design is a relatively recent phenomenon, rising out of the cross-fertilisation and interdisciplinarity of a variety of design domains including, but not limited to, service design, participatory design, design thinking, social innovation and co-design (Cooper, 2014). As the design research landscape becomes more specialised so too it becomes more fragmented. Service design is a central process in creating coherent and seamless user experiences. However, in an environment where policy is a major factor in shaping services, it is important for policy development and service delivery teams to engage the public together in co-designing policies and services. For Hermus et al. (2020:21), citizens ‘expect governments to develop policies and services that fit their needs without causing excessive bureaucracy or unwanted inequalities’.

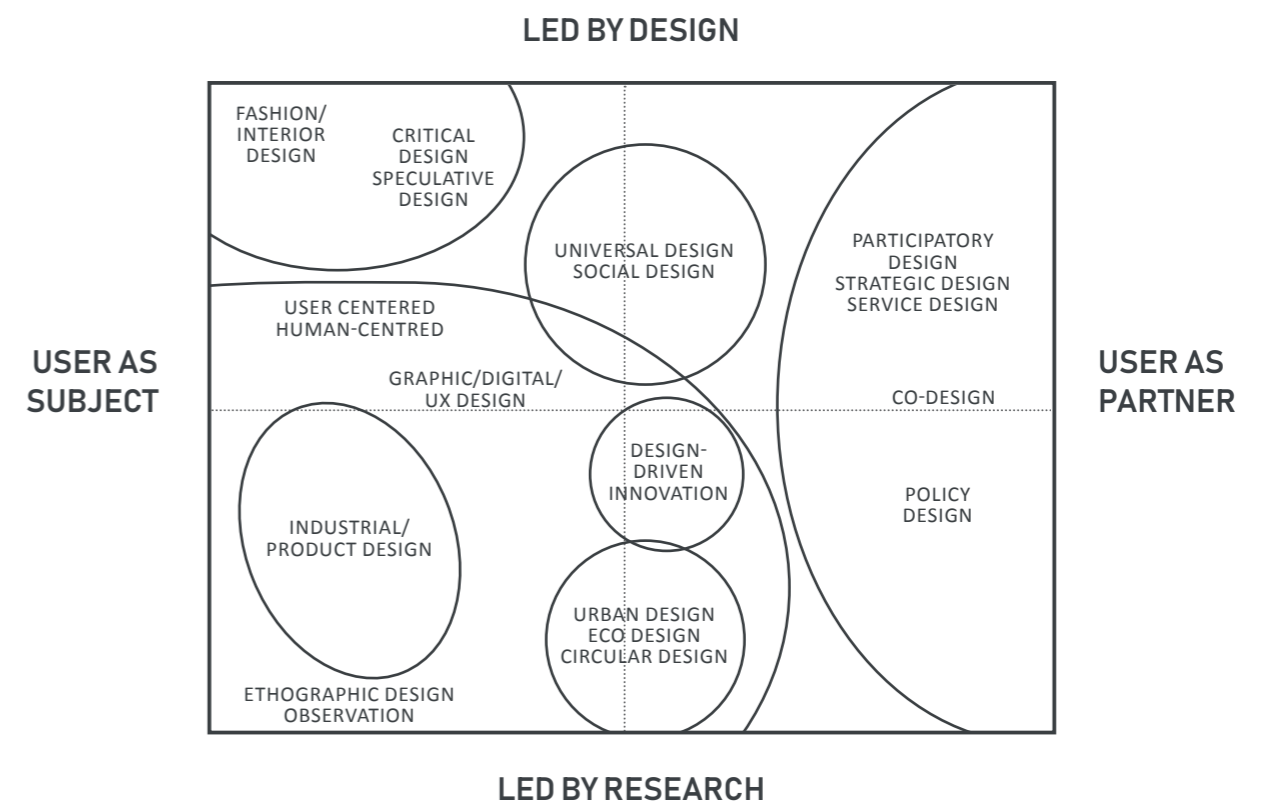


Figure 2: Design research landscape (adapted from Sanders and Stappers, 2008:5)

The seemingly intractable challenges facing the UK public sector are familiar to us all. Not only are traditional public services under overwhelming pressure - healthcare, education, transport and policing, among others, but a new wave of threats must be tackled by government - cybercrime, extremism, environmental disasters, global political turmoil and the repercussions from Covid-19. Ironically, innovations in the private sector, particularly new disruptive technologies and social media, are eroding public sector authority, 'challenging established institutional power' and contributing to the 'sense of crisis and illegitimacy confronting public decision-makers' (Bentley, 2014:13). For Staszowski et al., (2014:155) a broad range of interconnected systemic, social, economic and environmental complexities are provoking governments to rethink their approach to public policy development. Our hyper-globalised, hyper-connected world, creates challenges at multiple levels of governance – local, regional, national and supranational – and as part of certain policy agendas, at least in the UK, there is a drive to take decision-making closer to the citizens (Taylor, 2014:11; Barbero and Bicocca, 2017:3499; Siodmok, 2020). Bason (2014:227) asserts that 'the very nature of the problems the public sector is facing is changing, and that the current mode of policy-making is out of touch with them.' Policy presupposes the formulation of knowledge through a linear, rationale process, applied to complex challenges that tend not to be rational.

Established in 2010, the Government Digital Service (GDS) was a digital transformation agenda bringing more than 350 government websites and services onto one gov.uk platform transforming the user experience of digital services not just redesigning websites. Within its first three years, GDS saved £3.2 billion. GDS has a set of service standards with the number one principle being 'start with user needs'. There are now about 4,000 designers working in central government - mostly interaction and service designers but a growing number of policy designers and even government's first speculative designer. Within a few years, there was a need to bring design further upstream by connecting policy development with service delivery and in 2014 Policy Lab in the Cabinet Office was established. Policy Lab 'brings people-centred design approaches to policy-making'. Now in 2020, there are around 10 policy labs or user-centred policy design teams in central government (such as, HMRC Policy Lab, Ministry of Justice User-centred Policy Design Team, DWP Policy Exploration Team, FCO Labs, DfT Lab, DfE Teachers Policy and Service Design Team, DfE UCD Lab and Home Office Policy Lab, among others) and three at devolved levels in Northern Ireland, Wales and Scotland (such as Scottish Government Office of the Chief Designer, Northern Ireland Innovation Lab and Welsh Government Innovation Lab). There is a need to legitimise design for policy through a more rigorous critique in order for it to be holistically adopted in public policy methods and processes.

DESIGN IN POLICY

Government understanding and use of design has evolved considerably since the turn of the millennium. Research has provided an economic rationale for design's inclusion within a number of priority policy domains including, among others, creative economy, health, circular economy, digital, education, built environment and, most significantly perhaps, innovation policy. Design has attracted the attention of policy-makers as a factor for innovation in both the private and public sectors as part of a paradigm shift where the remit of innovation policy is expanding (Smits et al, 2010). Innovation policy is no longer narrowly concerned with technological competitiveness of enterprises but in wider innovation drivers and also in public sector reform (Edler et al, 2016). In 2018, according to a survey by the Bureau of European Design Associations, design featured in 21 of the 28 EU Member States innovation policies and 17 of their creative economy policies (BEDA, 2018). The extent to which design is a priority within these policies varies greatly. The European Commission's ten year plan Innovation Union also highlighted design as one of ten priorities for innovation: 'Our strengths in design and creativity must be better exploited' (EC, 2010:3).

To implement the visions encapsulated within Innovation Union, in 2013, the European Commission developed an 'Action Plan for Design-driven Innovation'. Between 2010 and 2019, the EU had funded more than €33 million in funding calls specifically dedicated to design¹. The EU Design Action Plan encouraged all European countries and regions to develop corresponding initiatives. This is the notion of policy for design by design i.e. developing a design policy using design methods. In the decade 2000-2009, only Denmark and Finland had dedicated design policies. Between 2010 and 2019, design action plans, policies or strategies were adopted by 12 national governments including Denmark, Estonia, Finland, France, Hungary, Ireland, Latvia, Malta, Netherlands, Poland, Slovenia and Sweden (BEDA, 2018). Estonia and Latvia both produced two iterations of design policy within the decade. It can be considered that the UK has a tacit or informal design policy with the infrastructure such as design support programmes and national stakeholders like Design Council and the Design Museum but it does not have an explicit or formal design policy. Led by Professor Martyn Evans, Manchester Met, Cardiff Met and Design Council are collaborating on the AHRC project 'Developing a Design Action Plan for the Strategic Use of Design in the UK'. However, design is recognised as a driver of innovation by a number of stakeholders including, for example, Innovate UK, which has produced two iterations of a 'Design in Innovation Strategy' 2015-2019 and 2020-2024.

'Design in innovation is about more than styling. It is a methodology that can be applied in the creation of better products, services, processes and business models. It can provide contextual insight and help to define innovation opportunities and strategies. Design can help businesses to develop and communicate ideas, and provide them with the means to deliver better solutions to market. Design has greatest impact when it's embedded from the earliest stages of, and throughout, the innovation journey.' (Innovate UK, 2015)

From 2020 to 2024, Innovate UK's Design in innovation strategy commits to an 'ambitious, targeted and well-managed programme of investment, championing and support, which will be structured under four themes that meet recognised business need:

- Making the case for investment in design
- Reducing the cost of entry for those new to design
- Helping businesses access the best design talent
- Helping businesses maximise the value contribution of design.'

In the same way that innovation policy is based on an analysis of the Innovation Ecosystem, design researchers have demonstrated that design policy should be based on an analysis of the Design Ecosystem (Moultrie and Livesey, 2009; Raulik-Murphy and Cawood, 2009; Sun, 2010; Swann, 2010; Hobday et al., 2012; Chisolm et al., 2013 and Whicher, 2017). A Design Ecosystem is a theoretical construct used by academics and policy-makers to examine the interplay between actors and initiatives in a network and how this can inform targeted policy action for design (Whicher, 2017:120). Finland was the first country to adopt the concept of a National Innovation System to inform innovation policy in 1992 (Sharif, 2006) and it was also the first country to adopt the concept of a Design Ecosystem to inform its design policy in 2013 (Finnish Ministry of Economy, 2013). In the UK, design was recognised within the innovation ecosystem and featured in an entire chapter in the 2011 'Innovation and Research Strategy for Growth':

'Design can be transformative for companies, through leading or supporting product and process innovation, for managing the innovation process itself, for the commercialisation of science, and the delivery of public services.' (BIS, 2011:36)

However, design was overlooked in the 2017 Industrial Strategy with few references:

'We will build on our existing strengths, from cybersecurity, machine learning, microelectronics design and composite compound chip technology to biotechnologies and life sciences such as genetics and cell therapy.' (BEIS 2017:33)

One of the conventional implementation mechanisms of innovation policies are business support programmes and the wide array of instruments that they include such as mentoring, capacity building, grants, vouchers, tax credits and financing programmes. In the UK, design is part of the remit of all the devolved nation's business support landscapes. More information on UK design support programmes can be found in the section on 'Research'.

¹2011 - European Design Innovation Initiative (€4.8m), 2013 - Design for Europe (€3.8m), 2015 - Design for Enterprises (€2m), 2015 - Design-based Consumer Goods (€11.2m), 2016 - User-driven innovation: value creation through design-enabled innovation (€4m), 2017 - Applied co-creation to deliver public services (€5m), 2018 - Cities as a platform for citizen-driven innovation (€1m), 2019 - Innovation in government - building an agile and citizen-centric public sector (€1.5m).

SKILLS

The teaching of design and policy across the UK can be described, according to one interviewee, as an “upside down triangle” – there is less (if any) being taught at undergraduate level, more at postgraduate level but it is happening in a more significant way at doctoral level. There is limited formal education in design for policy and thus a skills mismatch between supply in universities and demand in government, which is growing. Any university that made policy an explicit component of a design programme on public sector innovation would have a first mover advantage. Universities should consider the trajectory of graduates as many are going into public service development roles, which also require an understanding of the policy environment in which services are delivered. A growing number of academic institutions are also providing training, capacity building and mentoring to government departments and labs on various aspects of design including service design, policy design, speculative design and user research. Governments are now seeking to internalise user research skills and seeking good practices from academic institutions on how to conduct ethical user research and how to translate qualitative insight into policy evidence. Universities could consider whether they are in a position to apply to be part of government procurement frameworks to provide user research expertise and service/policy interventions.

SUPPLY: POSTGRADUATE, DOCTORAL & TRAINING

Design research and policy is not part of the core curriculum at undergraduate level even though undergraduate level is about building an understanding of the breadth of the discipline. However, other disciplines would also not be part of an undergraduate core curriculum like design management, design-driven innovation, speculative design and design for circular economy. For one academic:

“When we think of T-shaped designers or T-shaped researchers or even better T-shaped design researchers we consider breadth and depth. At undergraduate level, they need breadth in the discipline to build a solid base. At postgraduate level, you begin to develop the depth of understanding, which is deepened significantly further at doctoral level.”

Design for policy is currently an explicit feature within taught postgraduate programmes in seven universities (see map). Design research and policy is a dimension of all of these 12 programmes; however, none of them have a specific module on design and policy. Any institution that developed a specific module would have a first mover advantage. In a few years, we may see not only dedicated design for policy modules but also entire postgraduate courses (and maybe even dedicated modules on public service and policy design in undergraduate

degree programmes). Intriguingly, design is starting to emerge as part of policy analysis studies. For example, UCL’s Master’s in Public Administration was established in 2019 at the Institute for Innovation and Public Purpose where all students take four compulsory modules - Public Value and Public Purpose, Grand Challenges and Systems Change, Creative Bureaucracies and Transformation by Design, which encapsulates design for policy.

A number of institutions have varying forms of government collaboration as part of Masters programmes. For example, Glasgow School of Art has developed a ‘Designer in Residence’ scheme placing postgraduate students with public sector organisations and companies as part of a design research incubation initiatives. This has proved a fast track to GSA graduates being employed by local and Scottish Government including the Office of the Chief Designer within the Digital Directorate. As part of the Royal College of Art’s Policy Platform and Service Design MA, students have worked on challenges in local London boroughs like Islington, Enfield, Lambeth, Ealing and Camden as well as with policy labs such as the MoJ User-Centred Policy Design Team and DfE’s Teachers Policy and Service Design Team. Again, this has created an established pipeline with an estimated 200 RCA students joining government teams within the last four years.

As part of Public Collaboration Lab’s ongoing partnership with Camden Borough Council post graduate design students at UAL have worked with council officers, community groups and residents to deliver over twenty live projects, framed as ‘collaborative design experiments’ addressing service and policy challenges. Central Saint Martins’ Industrial Design MA embeds these activities within curriculum via the Design for Publics unit delivered through the Public Collaboration Lab whilst London College of Communication’s Service Design MA stages these projects within its Design Futures unit. As part of the EU Policy Lab’s ‘Future of Government 2030+’ project, seven UAL student teams from the Service Design MA worked with Public Collaboration Lab and Camden Borough Council to develop speculative concepts on models of government. One of the projects was selected to feature in the EU Policy Lab report and was showcased at an event in the European Parliament in 2019. For Kimbell (2019), student design sprints with government are ‘studios for society’ enabling students, academics and government to co-design experimental approaches to exploring policy issues with mutual benefit. Such approaches inject radical new thinking into policy processes, give students the opportunity to experience the realities of policy-making in live scenarios and often lead to graduates being hired by policy teams. Unfortunately universities in Wales and Northern Ireland have been slower to embrace service design for the public sector and policy is not on their radars despite an openness among devolved government labs to collaborate.

1 Glasgow School of Art

MDes in Design Innovation
MDes in Design Innovation and Transformation Design
 “The programme provides opportunities to explore new forms of design in relation to public participation, social and technological innovation and policy-making.”

MDes in Design Innovation and Service Design
MDes in Design Innovation and Environmental Design
 “Graduates will deploy their creative capacity beyond the world of consultancy or in-house design, embracing challenges within areas as diverse as public policy, private sector enterprise, citizen or social advocacy, public sector service provision, social enterprise and/or the voluntary sector.”

2 Lancaster University

MA Design Management
 “This module aims to familiarise you with the origins of design management, its past, present and emerging forms; its functions and purposes; and its relationships with policy making.”

3 Loughborough University, London

MA Design Innovation
 “Designing public policies and services is a central challenge in our societies today. This research area links the study of innovative policies to the research on delivery of coherent services that help to deliver innovation that matters.”

PhD Scholarships in Design Innovation

4 Manchester Metropolitan University

MA Design Innovation
 “The application of design thinking is explored with the latest research and practice in design innovation, design management and design strategy, that supports you to develop a holistic view of design and creatively apply the theory in your specialist area.”

5 Royal College of Art

MA Service Design
 “Service design solves problems and transforms the human experience of businesses and industry as well as developing impactful solutions for complex social issues, better public services and citizen centric policy.”

6 Transformation North West – North West Doctoral Training Centre

12 PhDs aligned to achieving the aims of the Industrial Strategy at Manchester, Manchester Met, Lancaster, Liverpool & Salford.

“How design can enhance the competitiveness of the region aligned to the Industrial Strategy?”

7 University of the Arts London

LCC: London College of Communication
MA Design for Social Innovation & Sustainable Futures
MA Service Design

“Course projects can be as diverse as working on homelessness and the barriers to accessing services in a London borough, to improving the employee experience of a major retailer, through to proposing future scenarios of government and policy development.”

CSM: Central Saint Martins

MA Innovation Management
 “The course offers a collaborative learning community in which students from a wide range of fields – including design, business, science, policy, digital entrepreneurship and art – continuously challenge each other to transcend their limits.”

PhD Scholarships in Design Thinking and Policy Making Practice

“Addressing complex public challenges such as sustainability, ageing populations, housing shortages and obesity requires thinking and approaches from many perspectives.”

8 University College London

MPA Innovation, Public Policy and Public Value
 “Transformation by Design: develops strategic design skills and techniques for creating policy innovation cultures, processes, environments and organisations, particularly addressing the dynamics of digital transformation.”

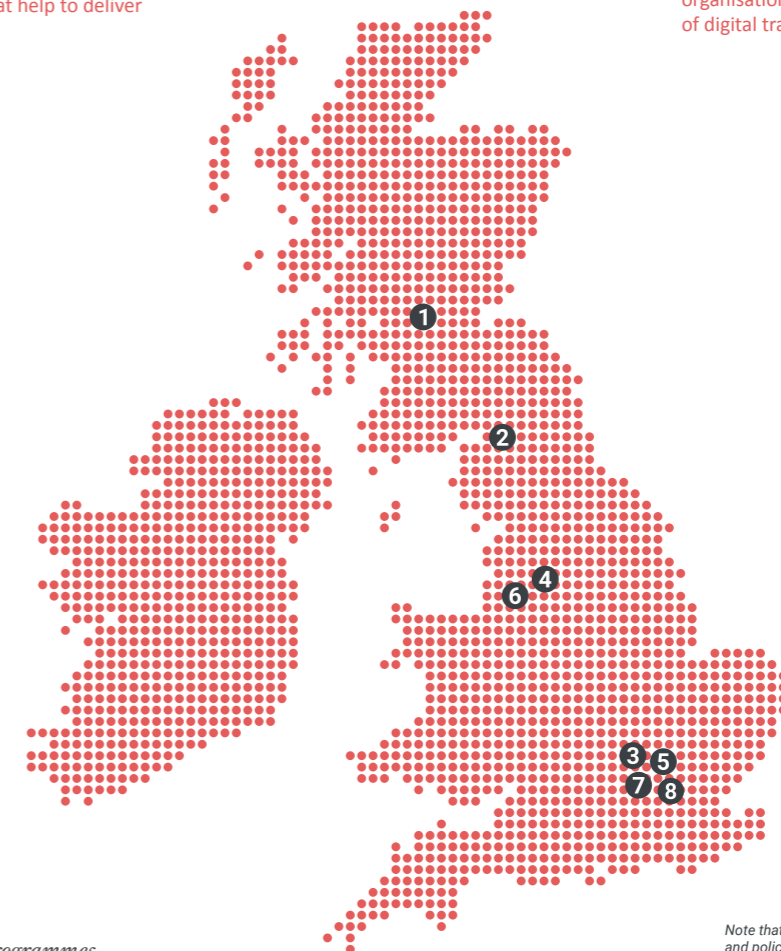


Figure 3: Map of Postgraduate programmes including design and policy 2020

Note that all the above universities offer PhDs in design and policy, but only the ones indicated explicitly have PhD scholarships in design and policy available according to their websites.

The interest in design and policy at doctoral level is driven by a number of factors; particularly international recognition that the UK is a centre of excellence, AHRC funding as well as demand for 'Policy Designers' in government. There is a growing international audience and recognition that the UK is a centre of excellence in design and policy partly due to the international profiles of Policy Lab, Design Council, Design Museum, the Design Research Society and others. There is an expanding international market for policy design expertise as demonstrated by the International Design in Government Conference started by GDS while the OneTeamGov movement – with the tagline radical reform through practical action – now has communities in Canada, Finland, New Zealand, Norway, Sweden and others. However, funding is also driving this agenda as there has been UKRI funding for doctoral research in design and policy. For example, Transformation North West is the AHRC North West Doctoral Training Centre involving five institutions (Lancaster, Manchester, Manchester Metropolitan, Liverpool and Salford Universities). There are 12 PhD students examining how design can enhance the competitiveness of the region aligned to the Industrial Strategy.

As part of a number of doctoral research initiatives students have been embedded in policy labs. For example, as part of a collaboration between King's College London and UAL, the institutions have jointly funded four PhD students to conduct research at the intersection between policy and design research with two of the four students participating in three month internships in Policy Lab in the Cabinet Office. Doctoral research by Federico Vaz at Loughborough in London has led to a long-standing collaboration with the Department for Work and Pensions Policy Exploration Team where the PhD candidate was not only observing design for policy initiatives but actively supporting the facilitation and uptake of these approaches. Doctoral studies are also a route into building capacity for design and policy in government teams.

There is growing interest among civil servants and policy-makers to understand how design can add value to policy development and service delivery. As such there has been demand for policy design and service design courses outside formal academic programmes. Training, mentoring and capacity building programmes on design for policy and service design are being developed and delivered by academic institutions like Cardiff Metropolitan University, RCA and UAL but also by government itself (e.g. Policy Lab and GDS Academy), by design agencies and studios as well as by the big consultancies. For example, PDR at Cardiff Met has developed a series of capacity building offers in policy design and service design for government. Greenhouse is a two-day hands-on training in the form of a design sprint introducing civil servants to policy and service design tools. It was developed in 2016 and since then has been delivered 16 times to over 250 civil servants including Belfast City Council, Northern Ireland Innovation Lab, Scottish Enterprise, Welsh Government, Policy Lab, HM Treasury, HMRC Digital, GDS and the Financial Conduct Authority, among others. PDR has also delivered longer-term capacity building exercises over 4-6 months with Essex County Council, HMRC Digital, Latvian Government and the European Central Bank. A further example would be Professor Lucy Kimbell and Policy Lab running a training for civil servants in Design Thinking and Design for Policy Makers in 2015 through Civil Service Learning. Short courses on design for policy were run for policy teams in Department of

Work and Pensions, Department of Energy and Climate Change and HMRC combining the practical experiences of the Policy Lab team with academic knowledge and pedagogy supporting learning and development for the policy profession. She has also run design thinking training to civil servants in the United Arab Emirates.

DEMAND: RISE OF THE POLICY DESIGNER

There has been growing demand for design researchers, user researchers, service designers and even policy designers particularly within central government. It is generally considered that Policy Lab in the Cabinet Office advertised for the first 'Policy Designer' in government in 2017. The job advert stated that the applicant will:

- Manage a range of projects with departments bringing design, data and digital tools to the policy-making process;
- Commission external experts (e.g. ethnographers, data scientists, service designers) and manage their input into projects;
- Use practical design skills to improve the Policy Lab's suite of tools, techniques and communications materials;
- Organise workshops and 'sprints';
- Support the creation and testing of prototypes in policy delivery environments;
- Support the Lab's wider learning agenda: helping other civil servants to understand and use new ways of working.

Since then a number of other departments have advertised for Policy Designers including Ministry of Justice, Department for Education, HMRC, FCO and others. More recently, the notion of 'user-centred policy design' (UCPD) has emerged, which has been adopted as the guiding approach by a number of teams including the MoJ User-centred Policy Design Team, HMRC Policy Lab and Department for Education's Teachers Policy and Service Design team.

UK universities are not necessarily producing designers and design researchers who end up in policy design roles. In short, UK universities are not producing enough design researchers with expertise in policy for government demand. As such, flexible and agile multi-disciplinary researchers like ethnographers, anthropologists, sociologists, psychologists and behavioural scientists are becoming 'Policy Designers'. This is not necessarily a criticism. Government is seeking to bring new skills into policy teams. However, it means that the emerging domains of 'policy design' and 'user-centred policy design' are being populated by multi-disciplinary researchers with no formal design training and not by designers or design researchers. Graduates from postgraduate courses outlined previously tend to become service designers, corporate business consultants, academics and freelancers rather than move into policy and strategy. In the job descriptions of Policy Designers, user-centred design expertise is a desirable but not an essential qualifying criteria.

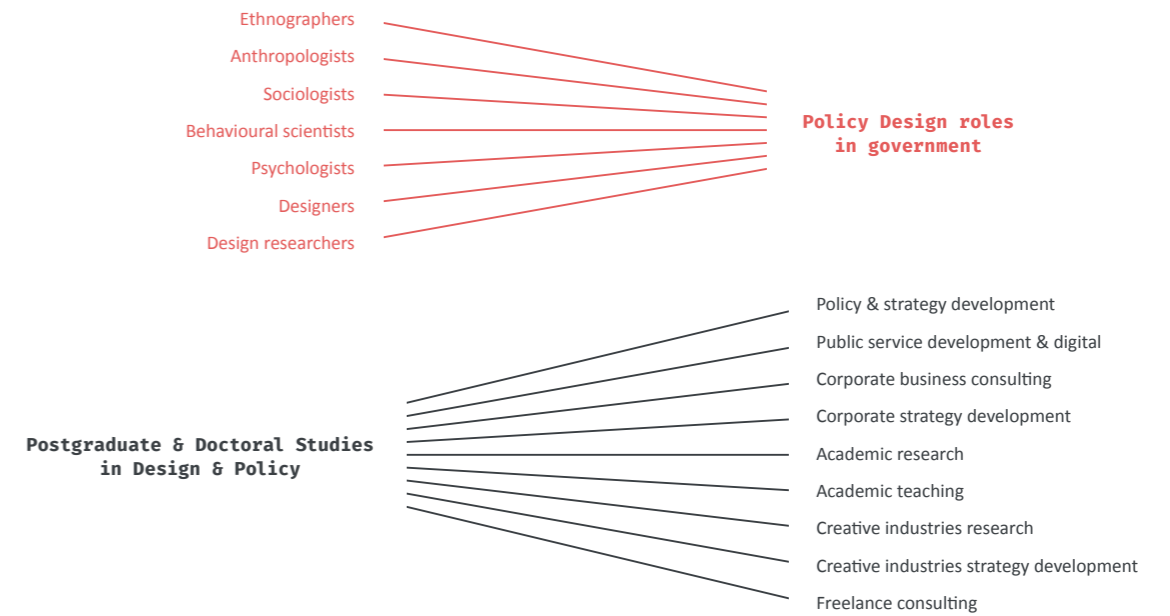


Figure 4: Destinations of Design Graduates versus Provenance of Policy Designers

Design for policy is still a relatively nascent sub-discipline of design. Arguably, the practice of design for policy by government is far in advance of academic theory. Central government is recruiting Policy Designers more quickly than they can be produced by universities (if they are being produced at all). So what are the skills of a Policy Designer? The skills cited here are based on the interviews with government and academics as well as the job descriptions of Policy Designers.

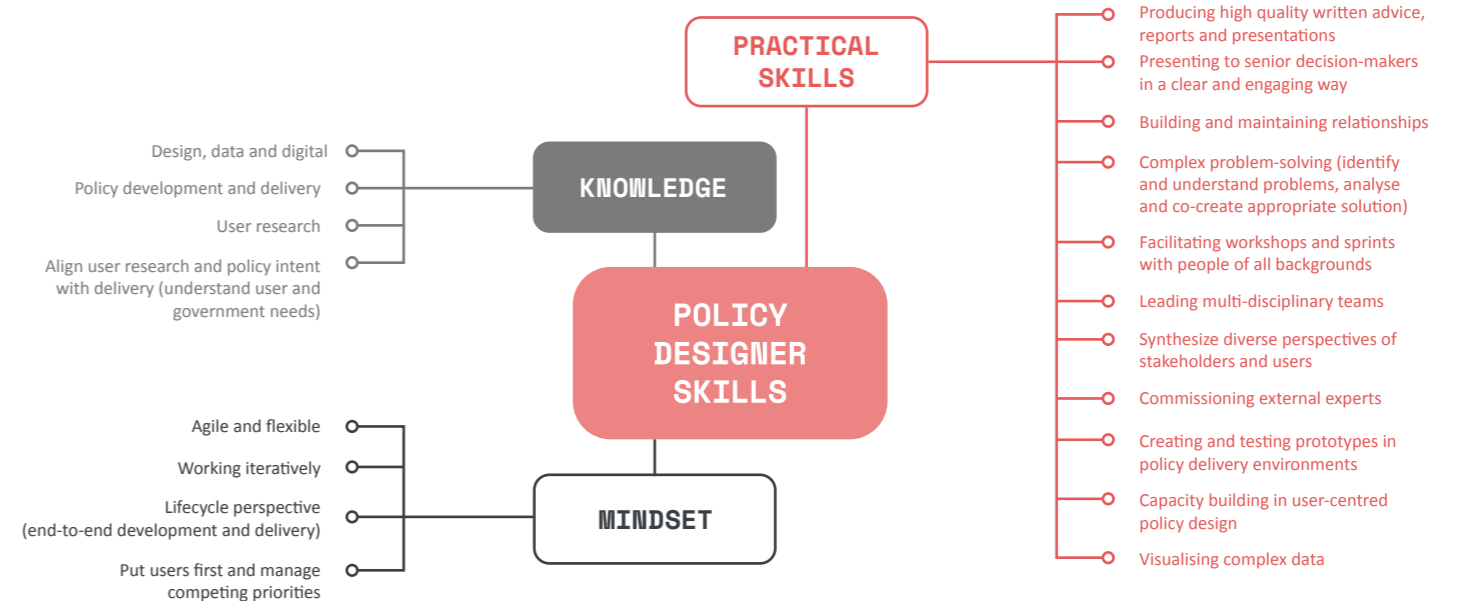


Figure 5: Skills of a Policy Designer

Government interest in design methods for policy-making has grown significantly since the late 1990s particularly within policy labs (Carstensen and Bason, 2012). Policy labs are multidisciplinary government teams experimenting with a range of innovation methods, including design, to involve citizens in public service and policy development (Whicher, 2017). According to Nesta, in the decade 1991-2000, there were only two policy labs in operation (in Finland and Singapore), from 2001-2010, there were 14 labs across the globe (Puttick et al. 2014:13) and from 2011-2020 the number had grown exponentially to over 100 in existence (Fuller and Lochard, 2016:4-5). The UK design for policy research agenda is being driven by demand in government for 'policy designers'. The number of UK policy labs and user-centred policy design teams has grown significantly since 2014 when Policy Lab in the Cabinet Office and the Northern Ireland Innovation Lab (iLab) in the Department for Finance were established. This is not intended to be an exhaustive list of the labs and teams operating at multiple levels of governance across the UK but rather to indicate the growing demand for the unique blend of design research and policy skills. These are a list of government-owned labs or teams (or not-for-profit collaborations) with capabilities in user-centred policy design at national and devolved levels. A unique collaboration to highlight would be Y Lab in Cardiff, which is a partnership between Nesta and Cardiff University bringing together research excellence and expertise in a number of innovation methods, including design, supporting public services in Wales to innovate.

There are currently around ten policy labs or UCPD teams operating at national level in the UK (see map of labs and UCPD teams) and three at devolved level and almost all of them engage in some form of collaboration with universities. Policy Lab is the pioneer or archetype for UK labs and UCPD teams, it sits in the Cabinet Office but collaborates across the whole public sector and currently has a mix of designers, ethnographers, social researchers and policy-makers. Policy Lab was established in 2014 as a one year pilot with three members of staff. As part of an AHRC Fellowship, Professor Lucy Kimbell (now UAL) was embedded for three days a week over a year contributing to building the team's work practices within the civil service. Lucy joined Policy Lab at the early stages of its journey where each team member made a huge contribution to developing the Lab and was able to bring academic rigour from design research to the team's developing practice as it intersected with established policy development processes. Also through an AHRC Fellowship, Dr Anna Whicher (Cardiff Met) played a role in supporting HMRC to launch HMRC Policy Lab defining the operating model, service offerings, skillsets and processes of the Lab. A similar intervention was conducted with the Welsh Government to explore the viability of an Innovation Lab and build capacity in design for policy across multiple departments. After several years of operation it has become timely for labs to seek evaluation by academic partners. For example, in 2015, Cardiff Met conducted an evaluation of the governance structure and activities of the Northern Ireland Innovation Lab (Whicher, 2015). Policy Lab is currently collaborating with Lancaster University to understand the impact of their work and how it has changed practice within government.

1	Policy Lab, Cabinet Office	London	NATIONAL	2014
2	Northern Ireland Innovation Lab	Belfast	DEVOLVED	2014
3	Y Lab	Cardiff	DEVOLVED	2015
4	MoJ UCPD Team	London	NATIONAL	2016
5	HMRC Policy Lab	London	NATIONAL	2017
6	DWP Policy Exploration Team	London Sheffield Leeds Newcastle	NATIONAL	2017
7	FCO Labs	London Singapore	NATIONAL	2017
8	Scottish Government Office of the Chief Designer	Edinburgh	DEVOLVED	2018
9	DfT Lab	London	NATIONAL	2018
10	DfE Teachers Policy and Service Design Team	London	NATIONAL	2018
11	DfE UCD Lab	London	NATIONAL	2018
12	Welsh Government Innovation Lab	Cardiff	DEVOLVED	2019
13	MHCLG Policy & Service Design Team	London	NATIONAL	2019
14	Policy & Innovation Lab (CoLab), Home Office	London	NATIONAL	2019

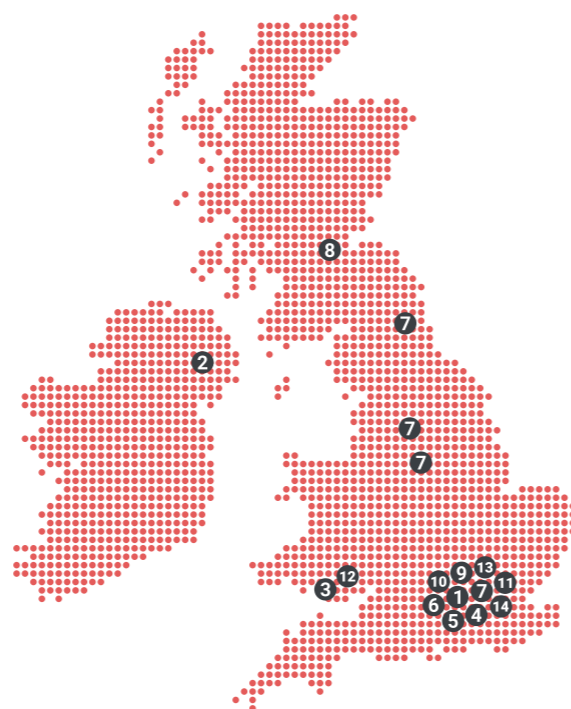


Figure 6: Map of UK policy labs and UCPD teams, June 2020

In 2016, policy labs and the use of design in policy were perhaps seen as inflated 'innovation hype' (Buerkli, 2016) but by 2020, for the labs that survived, perhaps we can consider that labs and policy design have passed through the 'trough of disillusionment' and are on the 'slope to enlightenment' although they are certainly not integrated into mainstream practice and part of the 'plateau of productivity'. There used to be a number of labs at local levels including in Leeds, Cornwall, Monmouth, Wakefield, Shropshire, Surrey and Kent as well as in UK Trade and Investment; however, these appear to have closed their doors (Fuller and Lochard, 2016). Now the activities of design approaches in policy are concentrated at national and devolved levels very often aligned to digital transformation agendas. What is the lifecycle of a Policy Lab? How have the operating models of Policy Labs evolved? What tools and techniques are most effective for fostering innovation in the policy process? How might we upscale and embed the lessons on a more system-wide scale? These are some of the questions that it feels timely for labs and UCPD teams to come together to explore. There is an opportunity to share insights and consolidate the lessons in order to enhance the resilience of these teams. Design is entering the lexicon of government but there are still a number of barriers to its wider up-take in policy and service development.

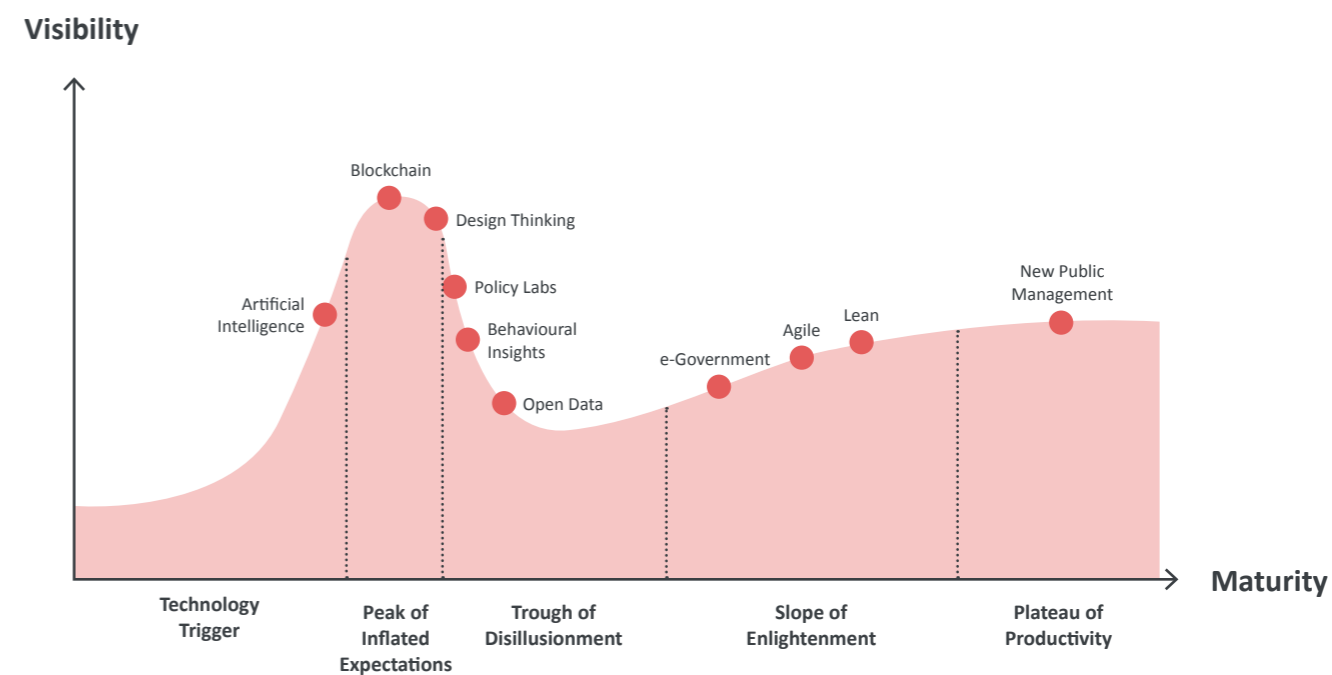


Figure 7: Government Innovation Hype Cycle in 2016 (Buerkli, 2016)

RESEARCH

UK academics and policy-makers are currently contributing to research and practices on design and policy in a number of contexts particularly:

- Policy Design Models, Toolkits & Evaluation
- Rethinking Public Engagement & Consultation
- Rapid Policy Prototyping
- Speculative Design
- Developing Design Policy & Action Plans
- Design Support Programmes

This section will explore each of these in turn looking at current knowledge, emerging areas, future opportunities and knowledge gaps in the field. Each thematic area includes a number of future research questions. These research questions as well as those previously cited are also included in a list in the appendices.

Design and policy researchers are also engaging with communities of practitioners and academics in other fields to create new policy and research collaborations such as foresight, behavioural science, randomised control trials, complex systems, artificial intelligence, blockchain and circular economy, among others. For example, the use of randomized control trials informed by behavioural science has demonstrated the value of experimental approaches to designing policies that fit people's behaviours rather than the other way round.

There is an opportunity for design researchers to partner with researchers from other disciplines in order to advance the field of design for policy (see figure 8: Design for policy - what's next?). There is also a need for design research institutions to partner with policy institutions. Design research is not on the radar of most public policy research institutes. However, an example where it is emerging would be the UCL Institute for Innovation and Public Purpose and the Department of Political Economy at King's College London. There is a need for more strategic collaborations between design and policy research institutes.

Based on interviews with UK policy-makers and academics, the growing interest in design for policy can be condensed into six main factors (see why design for policy infographic) – the changing nature of evidence, growing interest in user-centred approaches, a focus on end-to-end policy-making, a drive for more meaningful public consultation, the need for rapid policy prototyping (particularly in the context of Covid-19 response) and the rise of futures thinking (such as speculative design). UK academics and policy-makers are contributing to the growing bank of knowledge on these topics and this section will explore current knowledge, emerging areas and future opportunities.

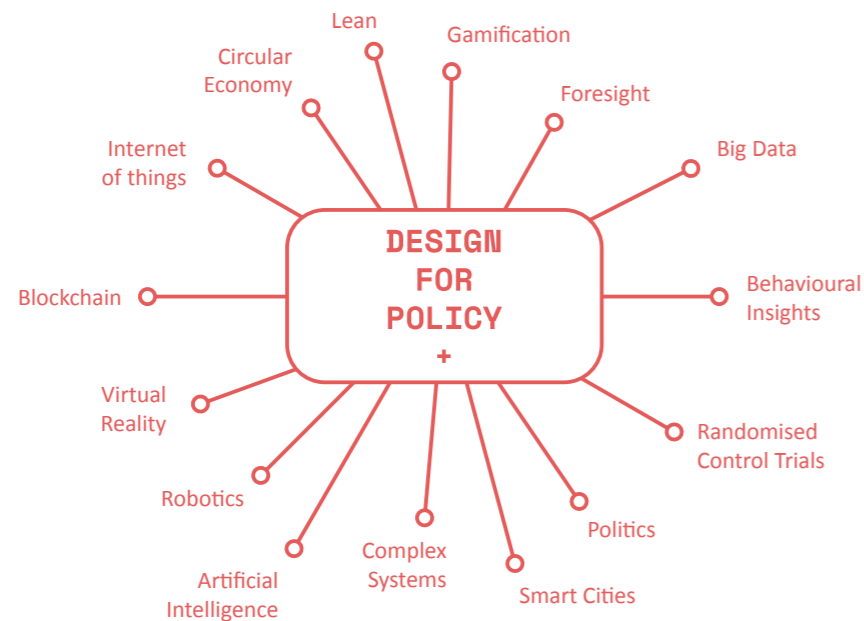


Figure 8: Design for policy - what's next?

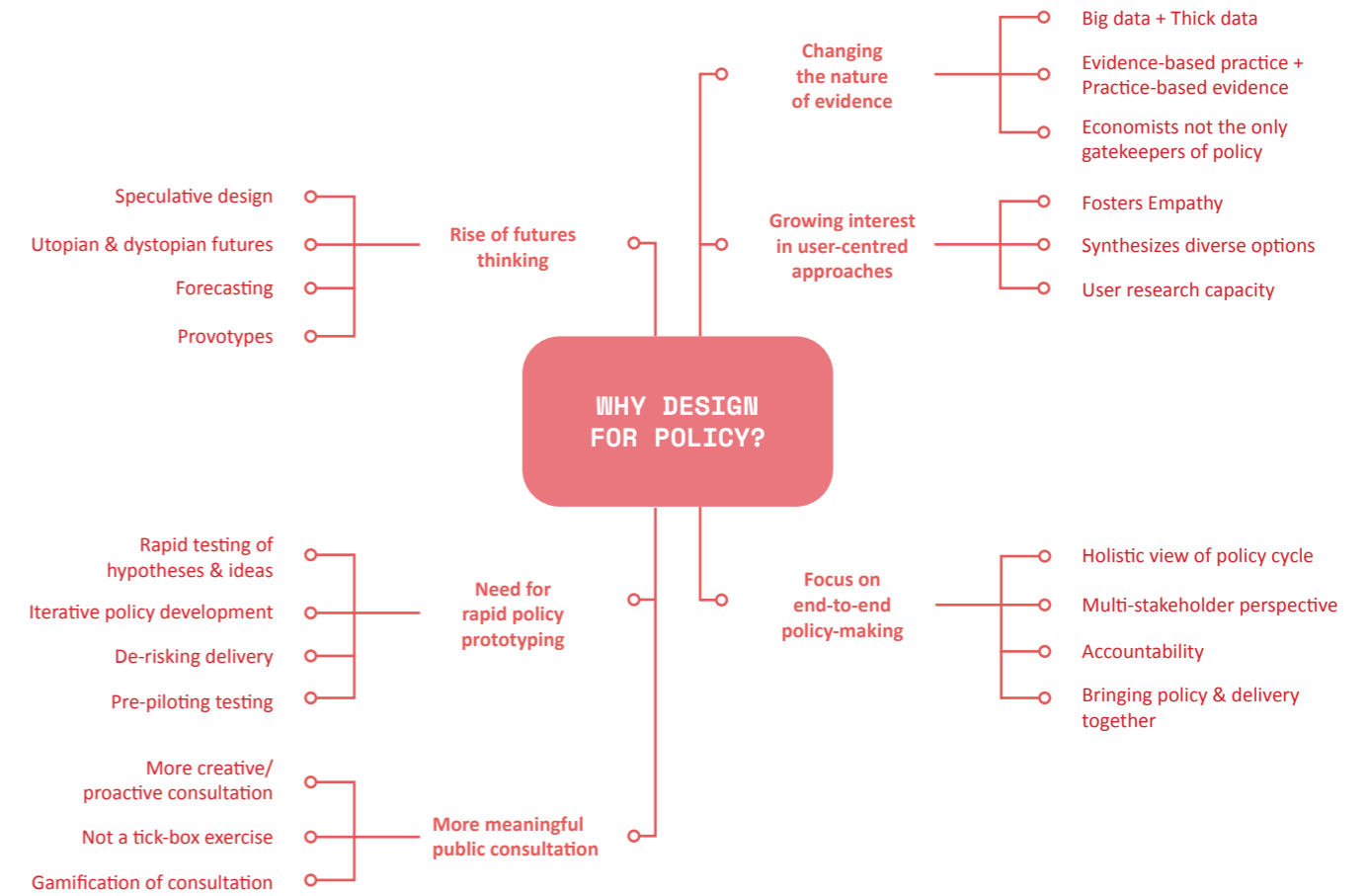


Figure 8: Design for policy - what's next?

CHANGING NATURE OF EVIDENCE

Over the course of the last decade there has been a drive in government to take decision-making closer to the citizen and design research has been embraced as one of a number of approaches for understanding the lived-experiences of the citizen to inform 'open policy-making' (Siodmok, 2020). There has been a gradual shift in emphasis away from the idea of 'doing to' the citizen towards 'doing with' the citizen (see Policy Lab's Participatory Policy Design Ladder). As articulated by one interviewee, "The ultimate goal is to find the Holy Grail of user-centred policy-making." According to another government participant, "Policy-makers are preoccupied with evidence-based policy-making". However, with the shift in power dynamics towards the citizen there has also been a corresponding shift in the nature of evidence required for policy-making. Evidence used to refer solely to quantitative, statistical evidence, which the cynical might observe could be "retrofitted to meet a policy intention". For one policy lab interviewee, it is important to articulate that a design approach to policy is not about "supplanting or usurping empirical approaches but complementing and enhancing them". This is the notion of "big data plus thick data" or "evidence-based practice plus practice-based evidence" (Burkett, 2018).

Evidence-based practice draws on existing established knowledge and evidence such as interventions that have proved effective elsewhere (for example, through randomised control trials). Practice-based evidence creates new knowledge and evidence applied through iterative prototyping and testing (for example, through co-design). It is contended that both are needed to meet the needs of policy and service users and draw on different data sources (Burkett, 2018). For example, big data involves large, quantitative datasets from which patterns can be discerned whereas thick data involves small, qualitative datasets going deeper into behaviours, motivations and underlying reasons. Economists tend to be the gatekeepers of policy, making generalisations from large datasets (big data) while design researchers conduct deep research into smaller samples (thick data). Policy Lab uses 'big data to see the big picture before then using thick data to zoom into the detail of people's lived experiences' (Siodmok, 2020). As such, design research is about humanising the numbers. For example, take reform of adult social care policy – the Department of Health has statistics on the different categories of service users accessing different care packages but sometimes generalist civil servants do not understand the lived experiences of the spectrum of people in the system. As Bason and Austin (2019) observe 'to employees long accustomed to being told to be rational and objective, [user-centred design] methods can seem subjective and overly personal'. This raises a further question, why is empathy not a valid attribute of the policy process?

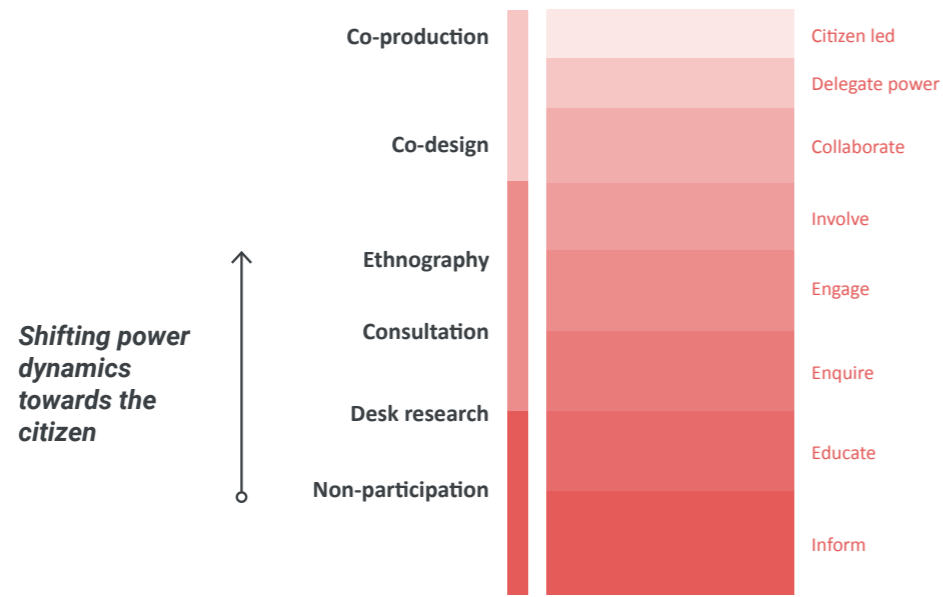


Figure 10: Policy Lab's Participatory Policy Design Ladder (2019)

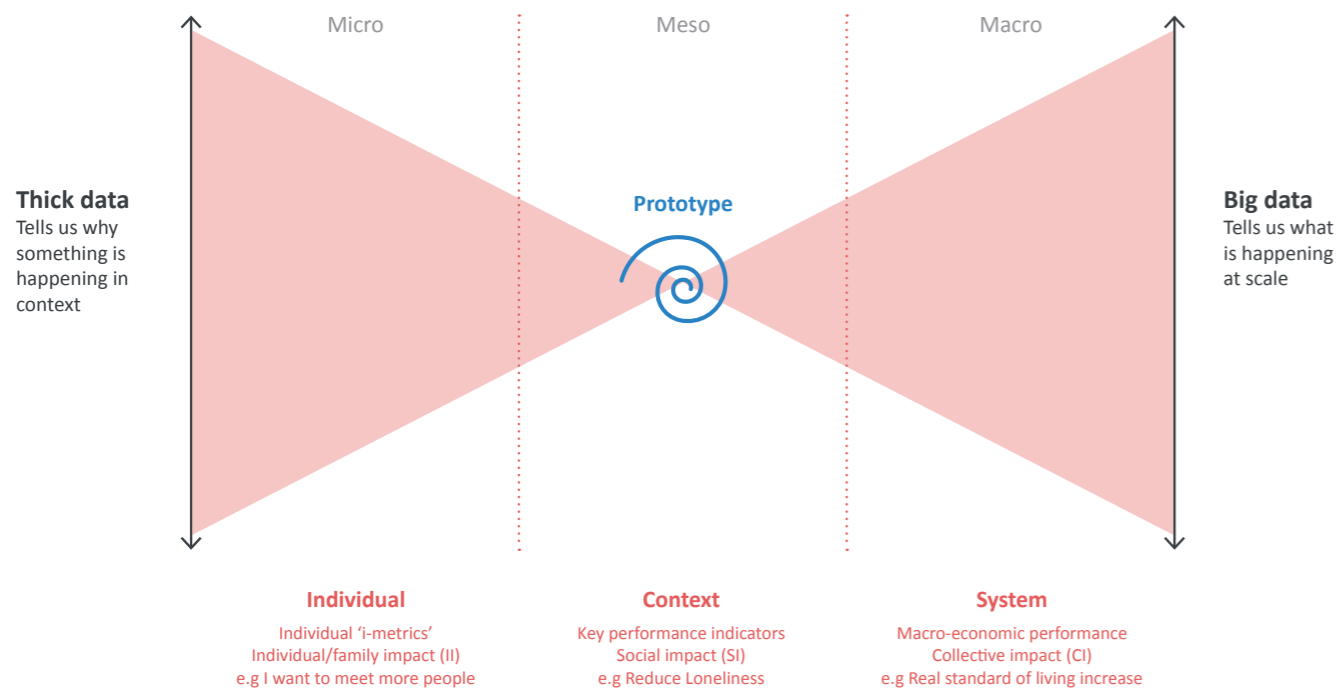


Figure 11: Policy Lab's Model for Combining Big Data and Thick Data (2020)

END-TO-END POLICY-MAKING

Design has gained traction in some policy circles due to this changing nature of evidence, the rise of user-centred approaches as well as the notion of 'end-to-end' policy-making. For Boyko and Cooper (2014:129) 'By engaging citizens in all the decision-making stages and using technology to visualise, record and analyse, citizens become part of the process of iteratively testing, implementing and reviewing of ideas.' As observed by both academic and government research participants, traditionally, the policy process has been very siloed and there has been a need to "bring policy development and service delivery together with the public". In the UK, guidelines on policy development and evaluation are enshrined in the Treasury's Greenbook (2018). The UK policy cycle is called ROAMEF – Rationale, Objective, Assessment, Monitoring, Evaluation and Feedback. Unlike the Government Digital Service (GDS) Service Standards where the point of departure is 'start with user needs', if you word search 'user', 'citizen' or 'public' in the Treasury's Greenbook there are only two results. If government understands that public services should start with user needs, why is that not also the same starting point for policy development? One of the reasons is politics but there are others like an engrained hierarchical culture with aversion to failure, over reliance on quantitative evidence and minimal change in policy processes in the last forty years. It should also be noted that there are different policy models in the devolved administrations in Wales, Scotland and Northern Ireland. However, government teams at national, devolved and local levels using design for policy are slowly adapting entrenched policy processes from inside the machinery of government and their promulgation has been rapid.

The ROAMEF model represents a traditional way in which policy is developed, implemented and evaluated in the UK; however,

there are multiple actions which take place within the six stages of the policy cycle and it can be very disjointed. According to some interviewees, "Policy teams do not feel sufficiently responsible for delivery." Policy is sometimes developed in isolation both from delivery teams and from the policy users. Service delivery teams feel that

"Policy is thrown over the wall for them to catch without contextual knowledge of how it has been developed. There is a silo between politics and policy, a silo between policy and delivery and a silo between delivery and the public."

Design research as a discipline is able to "examine multiple perspectives and understand the diverse stakeholder needs including the people developing the policy, the people delivering the policy and the people on whom the policy will impact". Design research can take a "holistic view of the policy cycle or 'journey' balancing the demands of people on all sides" – ministers, policy-makers, intermediaries and policy 'users'. Design for public services is now relatively well understood in government thanks to GDS and OneTeamGov, there is an emerging community of champions of design for policy; however, does design need to move even further upstream to the political space (design for politics)? In the UK, a great deal of design research focuses on the public (social design or design for social innovation), a significant body of work centres on design for public services (service design), an emerging field focuses on designing policy (design for policy) and very little focuses on design for politics. The question of power in policy-making is intriguing. Uneven power relations are at the heart of every kind of public policy intervention. Who gets to decide what the 'public good' is or policy goal? What is the legitimacy of the designer, policy-maker or politician, and how are they held accountable for their decisions?

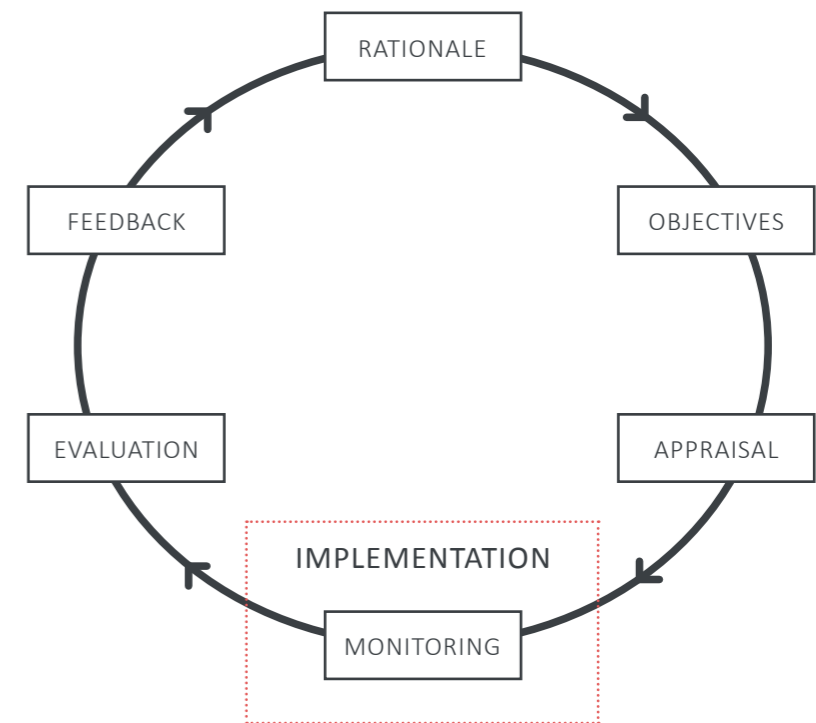


Figure 12: ROAMEF Policy Cycle (HM Treasury, 2018)

POLICY DESIGN MODELS, TOOLKITS & EVALUATION

Research on design for policy models, toolkits, strategies and evaluation is being conducted both by civil servants within policy labs and UCPD teams (such as Dr Andrea Siodmok at Policy Lab and Jeffrey Allen in the Ministry of Justice) and also by a growing community of academics both in consultancy and research capacities. Andrew Knight has created an ebook called the Delivery Book collating practical resources for developing policy and services including user-centred policy design techniques. A growing number of labs and UCPD teams are now in their fourth, fifth or six year of operation and their operating models have evolved and their use of design for policy has matured. Very often, these labs are seen as a “safe space to innovate” and operate behind closed doors not sharing in-depth case studies. Thus far, these labs and teams have promulgated through providing civil servants with “unique experiences that they have not obtained through traditional policy approaches” but also in the absence of metrics to assess the impact of design on the policy process. With significant economic and social changes on the horizon it is timely for researchers and civil servants to reflect on the lessons and impact in order to enhance the resilience of labs. For example, one policy lab leader expressed concern in ensuring that they are not a “casualty of Covid cost savings”. One of many challenges faced by policy labs and UCPD teams is how to embed design for policy approaches beyond the lab in the wider department and across the civil service.

Design for policy is introduced to mainstream policy approaches under the banner of open policy-making (OPM). A number of respondents referred to introducing design for policy approaches as a “trojan horse” or “policy design by stealth”. Often policy labs do not use the word ‘design’ initially when collaborating with new policy teams but talk about what design achieves using jargon-free terms like ‘citizen-centred’. They bring design terminology later in the process. Allen (2020:106) has identified a four stage journey of design for policy maturity starting with those with low consciousness and low competence of such approaches termed the ‘sceptic’, the civil servant with higher awareness who may attend design sprints or capacity building – the ‘curious’, which progresses to policy-makers with experience and higher competence who become the ‘practitioner’ and ultimately creating a cohort of advocates as part of the slope of mainstreaming who become the ‘evangelist’.

“Labs are the seeds to grow the use of design in government moving towards design capabilities being embedded in policy and service teams.”

For one academic interviewee, in an ideal world, design for policy would be “plugged into the induction of all civil servants”. In the same way that policy-makers journeys growing competences in user-centred policy design are evolving so too are the operating models and maturity of policy labs.

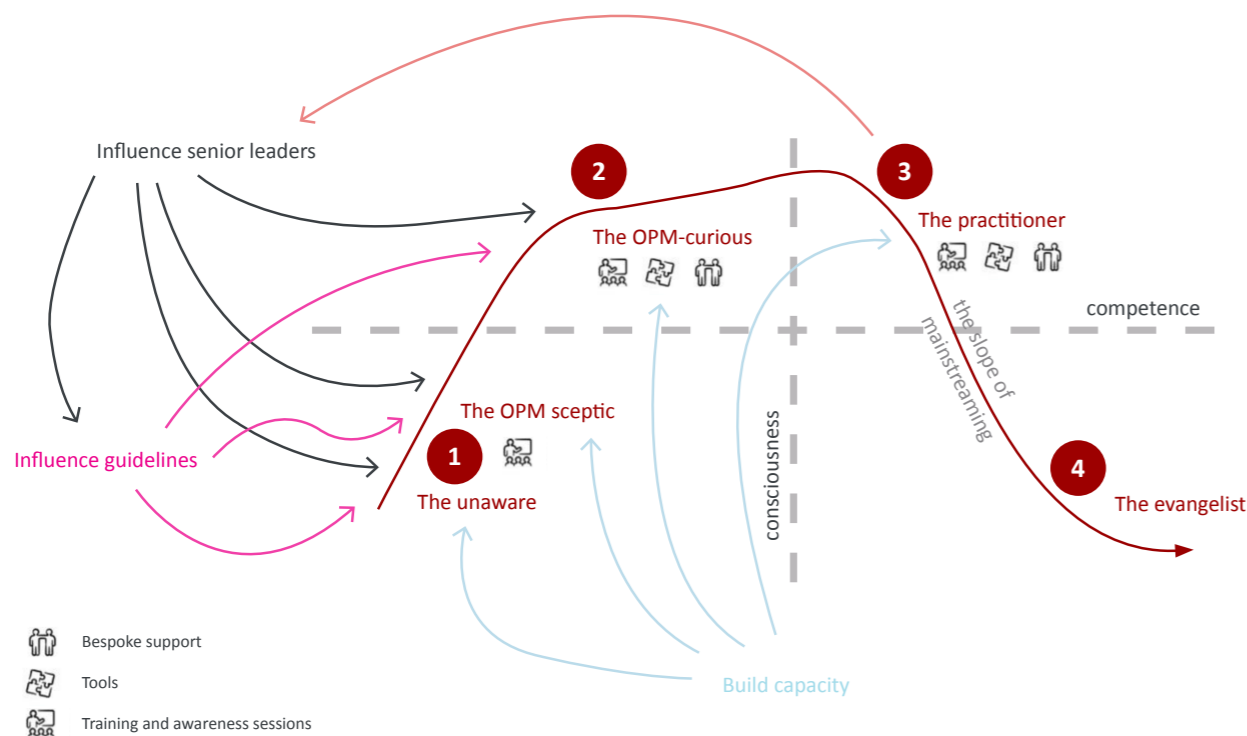


Figure 13: Theory of Change for the User-Centred Policy Design team (Allen, 2020:106)

RETHINKING PUBLIC ENGAGEMENT & CONSULTATION

In a traditional policy process, public engagement and public consultation take place at the Appraisal stages of the policy cycle (see ROAMEF model) once the Rationale and Objectives have already been determined. Sometimes, policy users or beneficiaries are not actively involved in public engagement exercises prior to very formalised public consultation, which can often isolate those best placed to provide input to the policy process. Public consultation in particular tends to be very formal such as through online forums and surveys, which means that individuals have to be digitally literate and highly aware and motivated in order to participate. For one policy-maker:

“A significant investment of time is spent at Appraisal rather than developing the objectives. Have we got the balance of the investment of time correct? If the objectives are clearer at the outset then it is easier to move into the Appraisal phase.”

Once a policy reaches public consultation it is unlikely to significantly change its trajectory and sometimes public consultation has been seen as a “tick box exercise”. However, there is a drive within government to transform public engagement and public consultation to ensure that it is more meaningful and actively engages those who would not normally participate in formalised engagement and consultation processes. Design researchers are increasingly applying design methods and processes to transforming the dialogue between policy-makers and citizens. A growing number of UK academic institutions are focusing on design research for transforming public engagement and consultation such as Lancaster (through the AHRC project ProtoPolicyAsia), Cardiff Met (through People Powering Policy), UAL (through Public Collaboration Lab) and GSA (through Design Innovation for New Growth), among many others. For example, in the People Powering Policy project one intervention with the Northern Ireland Department of Health focused on reimagining public consultation on adult social care and proposed a series of new routes to more effective public engagement co-designed by citizens including photography competitions, graffiti campaigns, webathons, gamification, tea and talk pop-ups, touring bus and animated mini films. The AHRC project Leapfrog involving Lancaster University and GSA focused on transforming public sector consultation by design delivering 83 co-design workshops with community groups and local government over three years and published 42 unique tools. The main impacts expressed in the evaluation report were how practitioners had changed their way of thinking, practice and even culture, experienced enhanced conversations and gained confidence in handling qualitative data through the design-led engagements.

When Policy Lab and iLab were established in 2014 both were established as experiments and had similar budgets of £400,000 and £350,000 respectively and small teams of three staff. Policy Lab received a top slice of funding from 17 government departments and iLab received funding from its host the Northern Ireland Department of Finance – both operating Sponsorship models (Whicher, 2017). However, as the activities and reputations of the labs evolved and political agendas changed so too did the funding models. By 2016, iLab was operating a Contribution model where clients would pay for half of the cost of projects and the host department was still making a contribution whereas Policy Lab was operating a Cost Recovery model charging for projects to cover their full costs with a small administration fee. By 2018, iLab was operating a Hybrid model with income from mixed sources including sponsorship, paid projects but also knowledge exchange initiatives (in this case EU funding). It is possible that in the future, policy labs and UCPD teams may move towards more of a Consulting model building in a larger administration or commercial fee in order to expand the lab operations. It is important for labs and UCPD teams to consider what model they currently operate and what model they may transition towards in light of government spending reviews and Covid-19 fallout:

- Sponsorship model – Lab receives a top slice of funding from one or multiple government departments.
- Contribution model – Lab receives sponsorship but also recovers a proportion of implementation costs from clients.
- Cost Recovery model – Lab covers all costs from projects on a not-for-profit basis or may charge a small administration fee.
- Hybrid model – Lab benefits from multiple sources of funding such as sponsorship, charging for projects as well as collaborative, research or knowledge exchange funding.
- Consulting model – Lab operates like an internal consulting function charging for projects with a commercial margin in order to grow the lab’s operations (hypothetical model).

As demand for policy design expertise grows, it is important for policy labs and UCPD teams to apply design approaches to their own operations in order to reflect on what has been achieved and develop strategies for moving forward. For example, Clive Grinyer at the RCA collaborated with Policy Lab for 6 months in 2019 in order to help the team develop their strategy. For him, it is important for policy labs to “prove the value through metrics and tell the story through case studies”. The co-design process resulted in eight provocations of different modes by which policy labs could move forward such as acting as the ‘Facilitator’ mode – acting as a broker connecting policy teams and design experts or ‘Mothership’ mode – stewarding and inspiring the network of other policy labs and UCPD teams across multiple levels of governance. At present, there is an absence of systematic analyses, reflection and synthesis on the current methods, tools and techniques of design for policy and their application in policy labs and UCPD teams. The role of Policy Lab is to bring different new practices to government, translating emerging practice to the mainstream by removing jargon and seeing what works in context. If the aim is to mainstream design and other innovation approaches, can the closing of a lab be seen as success? Or will they continuously look for newer and newer approaches? Can any lessons be drawn from disappearing labs particularly at local and city level?

Over a number of years, Glasgow School of Art's Innovation School has collaborated with the Digital Health and Care Institute around policy and service issues through creatively engaging NHS staff and the public. For example, the 'Modern Outpatient' project co-designed a person-centred vision of care for people living with multiple long-term conditions through a variety of mechanisms such as gamification, interviews, pop-up public engagement and co-design workshops. The project responded to a policy challenge set by Scottish Government, to identify how people would like to be supported to self-manage and thus developed new models and policy recommendations on person-centred care. A further example of creative public engagement would be the AHRC project 'Design Innovation and Land Assets - Towards New Thinking and Communities' led by Professor Lynn-Sayers McHattie at GSA. The project is currently exploring how a transdisciplinary community of academics, designers and stakeholders can deepen understanding and enhance decision-making in relation to landscape, land-use and land assets through intra and inter-community creative engagement with island archipelagos in the Highlands and Islands of Scotland. The insights generated through designed innovation will inform decision-making, allowing for more extensive creative engagement between Highlands and Islands Enterprise and communities.

UAL's Public Collaboration Lab, led by Professor Adam Thorpe, was established in 2015 initially to collaborate with Camden Borough Council exploring ways to extend resident engagement from consultation toward co-creation. The Public Collaboration Lab (PCL) research has delivered over 20 'collaborative design experiments' – co-design sprints – typically 10 weeks - exploring policy and service challenges with officers and residents. These 'experiments' assemble publics around issues of policy concern and generate service prototypes and rich qualitative data that complement statutory consultation approaches and support decision making by policy-makers. For example, within a project exploring the Future of Libraries, interactions were designed that sought to engage both users and non-users of existing libraries in visioning their future library. One such interaction, the Future Libraries Bureau, is a street-performance-come-board-game led by a facilitator dressed as a detective. It is an engagement tool based on the game Cluedo. Participants are invited to use a kit of materials and characters to draw, build and enact a future library and its uses. The Future Libraries Bureau was seen to engage a diverse range of people, including those that had not previously considered their relationship to the library and those who suggested that they would not usually engage in public consultation. In this way PCL contributes an exemplar of the role of design education in supporting 'quadruple helix innovation' - a process by which complex societal challenges are addressed through collaboration between government, education, business and citizens.

RAPID POLICY PROTOTYPING & SPECULATIVE DESIGN

Covid-19 has accelerated progression on many socio-economic issues such as cashless society, remote workforces and low carbon economy but perhaps most significantly it has accelerated the mode of policy-making. Covid-19 necessitated rapid, iterative policy-making where ministers and senior civil servants were required to adopt even shorter decision-making times – "there is a need to design policy at pace". According to multiple government interviewees, there is a perception that the "timelines of traditional academic research do not correspond to the pace of policy-making". One of the reasons why design research and practice has gained traction in government is because it has resulted in "shorter cycles of decision-making particularly through policy prototyping" and getting something "live into the field for iterating and testing". By introducing rapid policy prototyping at the early stages of the policy cycle, design approaches can de-risk delivery further down the line by ensuring that policy concepts are desirable, feasible and viable. Prototyping is central to all design processes and prototyping policy is also very much an emerging concept (Kimbell and Bailey, 2017:214) but one which unprecedented times is pushing governments to explore (Kimbell and Vesnić-Alujević, 2020:2). A criticism of design in the policy process is a focus on the discovery and ideas generation phase and not implementation, prototyping is a way to move beyond concept development into iterative testing prior to upscaling.

Speculative design is the concept of creating utopian and dystopian futures to provoke, incite and inspire people to provide critical feedback on ideas – such as policy options – in order to arrive at actions that are possible, plausible, probably and ultimately preferable. Professors Anthony Dunne and Fiona Raby (2013) were the progenitors of speculative design at the Royal College of Art. Speculative design was first brought into a government policy initiative in 2015 as part of the Government Office for Science project 'Foresight Future of an Ageing Population' in collaboration with Policy Lab and UAL. The project used speculative prototypes (fictional objects that bridge the speculative and the everyday) to provoke discussion and explore the implications of emerging technologies and new paradigms in the context of an ageing society. Debates centred on what could be done to 'prepare' individuals for change (like future home environment, saving for retirement, enhancing digital skills and volunteering) and larger systemic interventions (like town planning, future of mobility, healthcare provisions and policy participation).

"Policy Lab has observed that more and more policy-makers are experimenting with speculative design to develop creative policy options and explore alternative futures and thus have hired government's first Speculative Designer."

Policy Lab has gone on to work with speculative design in a number of policy contexts including the Department for Transport, HM Courts and Tribunals Service and how to map the Covid-19 response.

The EU Policy Lab's project 'Future of Government 2030+: A Citizen Centric Perspective on New Governance Models' sought to better understand the changing relationships among citizens, businesses and governments and to envision and discuss alternative scenarios and government models with a wider group of stakeholders. UAL was one of six European design schools selected to work on creative speculations and out of the box thinking on possible alternative models of government. Students worked with UAL's Public Collaboration Lab and the London Borough of Camden on seven proposals for the future of government. Each of the seven proposals was grounded on a future scenario and proposes either a future model of 'open democracy' or future models of service delivery that was applied to meeting Camden's aspirations for the future. Their proposals explored how artificial intelligence, hyper-connectivity, open data, complex networks, gamification and blockchain may be used by local government in 2030. The students presented their concepts to the council leader and Policy Lab and one of the concepts was selected by the EU Policy Lab to feature in its publication and also at a showcase in the European Parliament.

In 2015, Dr Emmanuel Tseklevas at Lancaster University led the project ProtoPolicy, which was the first AHRC project to introduce speculative design in politics. ProtoPolicy was a three month pilot using speculative design in the form of 'provotypes' to stimulate discussions between older people, community groups, researchers and a politician on the UK Parliament's Assisted Dying Bill. It explored how design fictions and speculative design could enable politicians and civil servants to engage with citizens, imagine the future implications of policy initiatives and negotiate political questions and the outcomes

were presented in an event in Westminster. For example, one of the concepts was a 'euthanasia wearable' – of course, this was never intended to be a real thing but was a tangible way to centre discussions on the policy implications of assisted dying. The trial was upscaled to ProtoPolicyAsia and found that speculative design in policy-making can enhance interaction between civil servants, NGOs and communities more effectively than traditional communication mediums such as written reports. Such methods may contribute to more inclusive policy-making as lengthy government reports isolate those parts of society that might be able to contribute most to the policy process. By venturing into the future, community groups can identify key opportunities, investigate challenges and possible complications. By bringing these futures to life, through tangible concepts, community groups can demonstrate to government and the wider public what these futures might look like and explore their implications. Lastly, the data and insights generated by speculative design can create empathy and a deeper engagement, which are beneficial for evidence based policy-making.

How can governments move from rigid, linear planning to being adaptive, dynamic and managing portfolios of experiments? These futures thinking or speculative design approaches can engage citizens in constructive dialogue about the future of various economic and social drivers like the future of work, banking, the high street, government decision-making, sustainability and artificial intelligence.



Photo: Policy Lab's Speculative Design for the Future of Maritime

DESIGN POLICY & ACTION PLANS

UK institutions have been driving the design policy agendas at local, regional, national, international and supranational levels. Lancaster University and Manchester Metropolitan University both played a significant role in design policy developments at EU level. In early 2011, the European Commission appointed 15 experts to the European Design Leadership Board to make recommendations on the EU's innovation policy priority that 'strengths in design and creativity must be better exploited' (EC, 2010:3). The UK was well represented on this board through participation from Professor Rachel Cooper, Dr Andrea Siodmok and Deborah Dawton from the DBA. Their report 'Design for Growth and Prosperity' was presented to the Commission Vice President in September 2012 and made a number of recommendations as part of six strategic areas: Differentiating European design on the global stage; Positioning design within the European innovation system; Design for innovative and competitive enterprises; Design for an innovative public sector; Positioning design research for the 21st century; and Design competencies for the 21st century.

A further implementation mechanism of Innovation Union was the European Design Innovation Initiative (EDII) involving six projects contracted to accelerate the integration of design into government and business strategies including 'Design in European Policies' (DeEP) involving Lancaster and 'Sharing European Experience in Design Innovation Policy' (SEE) led by Cardiff Met. Professor Martyn Evans (now Manchester Met) played a key role in leading the research contributions to DeEP such as benchmarking frameworks of micro and macro indicators to evaluate the impact of design policies. The macro design indicators included three categories – design investment (public investment in design support as a % of GDP), public investment in design promotion and government spend on design services), design supply (design courses at graduate level as a % of all courses, design courses at postgraduate level and design graduates) and the design sector (number of design businesses per million population, turnover of design services sector and creative services exports).

Through new research and workshops for policy-makers, SEE, led by Dr Anna Whicher built a bank of evidence to support public authorities to integrate design into policy, programmes and their mainstream practice. The network involved over 1,000 policy-makers in hands-on workshops and consequently integrated design into 18 policies and 48 programmes at national, regional and local levels. PDR developed blueprints for design policy interventions through Design Policy Workshops and the Design Policy Monitor. Both Evans and Whicher have developed new research on design ecosystem theory to inform design policy development, implementation and evaluation (Evans and Chisholm, 2016; Whicher, 2017).

In 2013, the European Commission launched its Action Plan for Design-driven Innovation proposing 14 actions 'to accelerate the take-up of design in innovation policy'. Promoting design to wider audiences such as businesses and the public sector was one of a number of themes resulting in the Design for Europe project led by Design Council involving Lancaster University, Birmingham City University, Nesta and Invest Northern Ireland among others. Design for Europe has had a larger sphere of influence than any previous European funded project on design. In its first two years (2014-2016) there were over 65,000 web users.

Crucially, the European Commission encouraged all European countries and regions to develop design action plans. As previously mentioned, 12 European countries have developed design action plans, policies or strategies between 2012 and 2019 but the UK was not one of them. As such, Manchester Met in partnership with Cardiff Met and Design Council, is leading an AHRC project to develop a design action plan for the strategic use of design in the UK. The project involved a series of co-design workshops as well as in-depth interviews across England, Wales, Scotland and Northern Ireland to understand the barriers to and drivers of the strategic use of design. In light of the changing context of Covid-19, the actions are being reviewed to ensure that they are relevant in a post-Covid world.

Other international design policy initiatives have been run by the RCA and Cardiff Met. Dr Qian Sun led the AHRC 'UK-China Design Policy Network' from 2014 to 2015 facilitating interaction between design researchers and government in the UK and China. The research identified the need for more evidence through case studies, sector-specific studies on how industry uses design and international benchmarking of good practices. The network resulted in a series of three annual trend reports being commissioned by the Chinese Government on how industry uses design called the 'Blue Book'. These Blue Books are regarded as important evidence in the policy cycle. The project was also fundamental in developing the strategies and actions for the Shanghai Government's innovation strategy during and after the project.

The AHRC project 'Mapping Design Innovation Ecosystems' led by Professor Andrew Walters mapped the Design Ecosystems for Wales and Scotland resulting in innovation programme changes in Scotland and Wales. The model for mapping design ecosystems developed by Cardiff Met and validated through the research has been adapted and adopted by countries around the world to inform their design policies and action plans. PDR has subsequently supported the following regions and countries to map their design ecosystems and/or develop design policies: at regional level in Catalonia, Central Macedonia, Flanders, Galicia, Scotland, Silesia, Wales and Wallonia; at national level in Barbados, Denmark, France, Georgia, Ireland, Latvia, Lithuania, Malta, Slovenia, Thailand, Ukraine and UK; at a continental level in Europe. For example, PDR supported the Department of Jobs, Enterprise and Innovation in Ireland to develop their National Design Policy by conducting a survey among innovative companies in Ireland and co-developing policy actions with key stakeholders. PDR also has had a long-standing collaboration with the Latvian Ministry of Culture resulting in the policy – Design Latvia 2020 – which includes an analysis of the Design Ecosystem based on the model developed by PDR. In line with the European Commission's 2019 innovation priorities, PDR led

a series of five Design Policy Workshops involving more than 150 stakeholders across Europe to provide input for a new EU Design Action Plan. The input from the workshops was refined into a position paper 'Towards A Next Generation Design Policy for Europe', which was presented to the European Commission in Helsinki in December 2019 as part of the Finnish Presidency of the European Union.

There is a need to rethink design policy on a global scale where design is championed as one of the UK's soft powers to promote export and promulgate open government models.

DESIGN SUPPORT PROGRAMMES

Large multinational companies around the world are recognising the value of design and internalising that expertise by acquiring design agencies. Since 2004 over 100 design agencies have been acquired by large corporations like Deloitte, EY, Accenture, McKinsey, IBM, Google, Facebook, LinkedIn and Yahoo (with more 60% of them acquired since 2015) (Design in Tech Report 2019). However, small to medium-sized companies do not understand the value of design and are slower to react. Businesses of all sizes are increasingly interested in how to integrate design into their business strategies but do not necessarily know how to achieve it. Businesses that have design as a core element of their strategies are more profitable. One of the conventional implementation mechanisms of innovation policies are business support programmes and the wide array of instruments that they include such as mentoring, capacity building, grants, vouchers, tax credits and financing programmes. Design is a relatively low-cost way for companies to innovate and differentiate their offer through understanding user needs creating products, processes, services and systems that are desirable, viable and feasible. There is more research yet to be conducted on how best to support companies to use design. For example:

- Is it more effective for design to be integrated into mainstream innovation programmes or to have dedicated design support programmes?
- Are financing or mentoring programmes more successful at embedding long-term design capacity within companies?
- Should design support focus on increasing design capacity within companies on the lower rungs (light touch for large numbers of companies and lower cost) or should design support focus on supporting companies nearer the top of the ladder to use design more strategically (more in-depth for fewer companies costing more)?

A hypothesis may be that there should be dedicated design support programmes to put a spotlight on design but design should also feature as part of mainstream innovation support programmes in order to reach a wider audience. Based on interview responses with design support providers when design is part of mainstream innovation support take-up of design expertise can be low because the design dimension is 'hidden' among other innovation activities. In the UK, design is part of the remit of all the devolved nation's business support landscapes. In Wales, design features within the SMART Innovation suite as the Productivity and Design scheme, which is financed through

EU Structural Funds. Between 2017 and 2019, there have been 180 design interventions where companies can access 3 days of design audit and mentoring. PDR at Cardiff Met has a long standing collaboration with the Welsh Government Innovation Team delivering a number of design support contracts directly to businesses including Design Advisory Service (1994 to 2009), the Service Design Programme (2010 to 2014) and 46 Knowledge Transfer Partnerships (1995 to present). From 1994 to 2019, PDR supported over 4,000 enterprises to use design.

In Northern Ireland, Invest NI delivers the Design for Business programme with three offerings.

- DesignAdvice – half day free design advice at the customer's premises.
- DesignActive – seven days of consultancy from a design agency (cost £1,250)
- DesignForward – ten days of consultancy and engagement from senior management (cost £1,800).

This is also funded through European Regional Development Funds. In Wales and Northern Ireland design support programmes are currently EU funded so it is unclear what programmes will look like after this round of EU Structural Funds ends. There is a real need for continuity in the design support landscape and to ensure that design remains part of innovation programmes going forward.

The design support landscape is more fragmented and lacks continuity in England with Innovate UK being the main provider but with Design Council and the Design Museum also providing ad hoc initiatives. Innovate UK offered three rounds of Design Foundations in 2017 and 2018 providing 150 grants at a value of £6 million. A company could receive up to £40,000 for a maximum of three months for early-stage, human-centred design projects and could sub-contract up to 70% for design expertise. Examples of the impact include:

- SensEye winning additional sales contracts in excess of £1 million and hiring a Head of UX Design.
- Entia developing and launching two new products with projected sales of £1 million in the first year and £9 million in five years.
- Entomics securing funding of £750,000 to build a large commercial demonstrator of their final design concept.
- Qumodo winning a £1.5 million contract with the Home Office to deliver software to help police officers.

From 2020 to 2024, Innovate UK's Design in innovation strategy states that there will be dedicated grant funding for design and design will feature in broader initiatives.

Design Council's programme Designing Demand is still a reference point for design mentoring programmes. Operating from 2007 to 2012 the programme supported over 2000 SMEs, intensively coaching over 700. An evaluation of 200 companies found that for every £1 businesses invest in design, they can expect over £20 in increased revenues and over £5 in increased exports. From 2014 to 2019 Design Council ran Spark – a mentoring programme and product innovation fund (£15,000) for entrepreneurs. Spark is a 16-week programme where 5% of the product sales go back into the fund. After the programme there is a 'Spark Fund Pitch Day' where participants pitch to the Design Council for a share of up to £150,000 to help accelerate their product to market.

As part of a growing programme of activity launched in 2017, the Design Museum run a biannual two-day design thinking and innovation masterclass for corporates in collaboration with the RCA. The audiences tend to be international, senior executive level, and from non-design firms or departments where design-capability is fairly nascent. They also run design thinking workshops on a consultancy basis for business focusing on introducing design frameworks and processes and drawing on case studies and experiences from the museum's collection and exhibitions.

In Scotland, design is part of Scottish Enterprise's remit operating the 'By Design' Voucher from 2015 to 2019. Companies could get £5,000 to work with a designer for the first time; it could be spent on user research, concept development, web development, prototyping, product/service development and strategy. In five years, more than 600 companies received the grant. PDR's evaluation revealed that 64% of companies reported launching a new product or service and estimated an average of £240,000 in cumulative sales within three years. After the By Design grant, 83% of companies reported that they had continued to work with a design agency and on average had gone on to invest a further £26,000 in design (Gaynor, et al. 2020).

The Creative Futures Partnership (CFP) is a pioneering partnership between the Glasgow School of Art (the GSA) and Highlands and Islands Enterprise (HIE). The partnership brings together GSA's distinctive strengths in creativity and innovation with HIE's economic and community development expertise. In particular, the CFP is committed to the long-term and sustainable development of a creative, entrepreneurial and internationally connected region. Through research and teaching programmes, the partnership addresses complex issues facing the region, such as youth migration, new ways of using digital technologies, and supporting innovation within the creative industries. Projects within the partnership link internationally with the GSA's academic and business partners to develop the creative capabilities of students, enterprises, communities and government.

Design in Action (2012-2016) was a £5 million Scotland-wide partnership between Duncan of Jordanstone College of Art, University of St Andrews, Abertay University, Dundee, Edinburgh College of Art, Gray's School of Art and the Glasgow School of Art. DiA focused on the role of design as a strategy in stimulating economic development and renewal. It distributed around £320,000 in grants to start-ups, entrepreneurs and designers resulting in an annual turnover of more than £3 million for the funded businesses.

The challenge of integrating design into innovation policy and business support programmes was articulated particularly well by one interviewee:

“The design in innovation policy challenge in the UK is less about knowing what to do, and more about having the leadership to actually make it happen. Just as in business, great design can only happen with appropriate leadership. Design needs to be on the agenda. It needs to permeate down through organisations at a cultural level. Senior figures and decision-makers in government and the public sector need to believe in design and back up that belief with appropriate operating models and serious commitment. Without that, even the best strategies and policies will have limited impact.”

A growing number of organisations - companies and city councils - have Chief Design Officers. Having a Chief Design Officer on the Executive Boards of UKRI and Innovate UK would ensure more effective design leadership.

PARTNERSHIPS

This section explores the research infrastructure or emerging centres of excellence in design and policy, the barriers to and drivers of government-academic collaborations and possible future partnerships. The AHRC has specifically asked for centres of excellence in design and policy to be identified. As design and policy remains an emerging area of research, it might be too early to explicitly highlight centres of excellence. There are certainly pockets of design research and policy expertise across the country but no institution or infrastructure with a pure focus on this research field. For one academic interviewee:

“The terminology centres of excellence is perhaps misleading but there are experts in the UK that are really leading this research at a global level. There are no research centres putting policy design research front and centre.”

The expertise around design research and policy is more concentrated among a few well-renowned experts rather than centres of excellence. If anything, the centres of excellence are in the policy labs in central and devolved government. UK academic institutions are more likely to term themselves centres of excellence in service design, social innovation or design innovation than design and policy. Nevertheless, there are a number of UK academic institutions with teams or units with design and policy research capabilities. The following institutions have been cited by their peers as leading the design and policy research agendas (in alphabetical order):

- Cardiff Metropolitan University – PDR (International Centre for Design and Research)
- Glasgow School of Art – The Innovation School
- Lancaster University – Imagination
- Royal College of Art
- University of the Arts London – Central Saint Martins and London College of Communication

For each institution, a timeline has been produced of significant design and policy initiatives such as UKRI funded research, EU funded research, government collaborations, consulting initiatives, first PhD completions and first Masters cohorts.

UK academic institutions are an underused resource by government policy teams and labs in terms of research and consultancy mostly because government is unaware of what universities can offer with regards to design and policy but equally universities probably have not been clear in articulating what they can contribute. Current forms of academic-government collaboration include commissioning design and user research; service and policy interventions; strategy development and evaluation; rapid policy prototyping through enabling students, staff, stakeholders and policy-makers to collaborate on policy challenges; government away days to academic institutions; training, capacity building and mentoring in various design approaches; government secondments to academic institutions; 'designers in residence' schemes placing MA design students in public sector organisations; doctoral students being embedded in policy labs and government teams over the course of several months as well as more formal collaboration as partners on research grants.

However, there are also (perceived) barriers to collaboration between government and academic institutions including non-disclosure agreements, confidentiality when working on politically sensitive policy challenges, timelines in getting ethical approval for academics to engage with government users to do research, a perception by government that university research processes are slower than policy processes, a lack of deep understanding among academics (particularly students understandably) of policy constraints, discussions on who bears the cost of collaboration and a perception that academic writing is not accessible. It would be useful to have formalised, cross-government mechanisms to enable meaningful collaboration between academic institutions and government policy and service teams on design-related interventions and research. Universities and UKRI should also align more closely with the research priorities outlined by each government department on GOV.UK's Departments' Areas of Research Interest and also with the Government Office for Science.

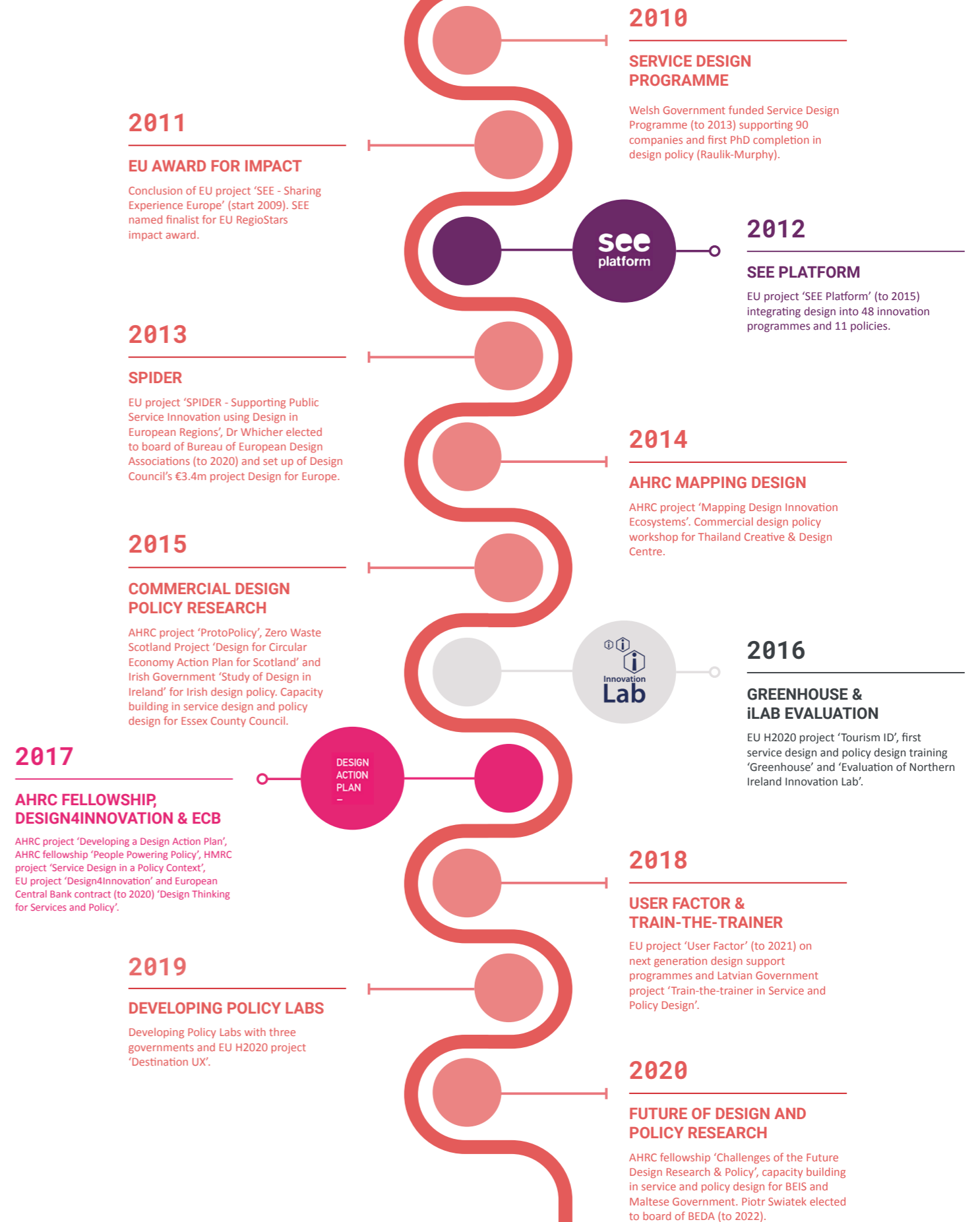
CARDIFF METROPOLITAN UNIVERSITY - PDR

PDR (International Centre for Design and Research) operates both in the design for policy and the design in policy space.

PDR has led successive EU-funded knowledge exchange projects on integrating design into business support programmes and innovation policies across Europe (SEE 2007-2015, Design4Innovation 2017-2021 and User Factor 2018-2021). Through research, knowledge exchange, advocacy and workshops with over 1,000 policy-makers our flagship project Sharing Experience Europe (SEE) resulted in design being integrated into 18 innovation policies and 48 programmes at national, regional and local levels. The AHRC project 'Mapping Design Innovation Ecosystems' led by Prof Andrew Walters was an opportunity to consolidate years of design-led practice into academic theory to inform future implementation. This AHRC project informed the Scottish Enterprise 'By Design' voucher (2015-2019) distributed to more than 600 companies and PDR subsequently evaluated the programme. PDR has commercialised its design research supporting Zero Waste Scotland to develop the 'Design for Circular Economy Action Plan for Scotland', Irish Government's 'Policy Framework for Design in Enterprise in Ireland', the Latvian Government's design action plan 'Design of Latvia 2020' and Cité du Design St Etienne informing the 2020 French design policy. PDR has developed a commercial offering to map design ecosystems to inform policy action and these interventions have been delivered at regional level in Catalonia, Central Macedonia, Flanders, Galicia, Northern Ireland, Scotland, Silesia, Wales and Wallonia; at national level in Denmark, France, Ireland, Latvia, Lithuania, Malta, Slovenia and UK; at a continental level in Europe as well as beyond Europe in Barbados, Georgia, Thailand and the Ukraine. Currently, PDR is supporting the implementation of one the AHRC's Creative Clusters called 'Clwstwr'.

Informed by the EU project 'SPIDER – Supporting Public Service Innovation using Design in European Regions' and demand from government, PDR developed capacity building initiatives in service design and policy design called Greenhouse. PDR has delivered Greenhouse to more than 500 civil servants including Belfast City Council, Cork County Council, Essex County Council, Northern Ireland Courts and Tribunals Service, Welsh Government, HMRC Digital, Government Digital Service, HM Treasury, Cabinet Office and Financial Conduct Authority, among others. Often the training would lead to more strategic interventions including the project with HMRC 'Service Design in a Policy Environment' connecting policy and delivery teams, evaluating the Northern Ireland Innovation Lab, a six-month intervention with innovation leaders in the Latvian Government and a three-year framework contract with the European Central Bank to deliver design thinking for services and policies. PDR's evaluation of iLab supported the lab to transition from a funding model entirely reliant on sponsorship from the Department of Finance through a Contribution model (where costs are partially recovered from clients) to a Hybrid model where the Lab spreads risk by generating income from multiple sources like Sponsorship, charging for projects and through collaborative funding like EU projects. PDR has also supported the development of HMRC Policy Lab and the Welsh Government Innovation Lab through an AHRC Fellowship. Whicher's project 'People Powering Policy' iteratively developed and tested a design for policy model, toolkit and frameworks in four policy initiatives with HMRC, Northern Ireland Department of Health, the Financial Conduct Authority and Welsh Government and through 21 co-design workshops involving 531 civil servants from local, regional, national and overseas governments. (fewer companies costing more)?

DESIGN & POLICY TIMELINE Cardiff Metropolitan University – PDR



GLASGOW SCHOOL OF ART – THE INNOVATION SCHOOL

The Masters in Design Innovation was launched by Glasgow School of Art (GSA) in 2010 and since then the suite of programmes (Design Innovation: Service Design, Citizenship and Environmental Design pathways) have been a skills pipeline for design consultancies and Scottish Government. For example, Sarah Drummond was part of the first cohort of M.Des Design Innovation graduates and with Lauren Currie from Dundee University, established Snook. Snook is a multidisciplinary design studio with particular expertise in public sector innovation taking a collaborative approach to developing services and policies for people, with the aim of ensuring they are developed around the needs of the individuals rather than technology or the process itself. Prior to opening the London office and its acquisition in 2019, approximately 80% of employees were GSA Innovation School (IS) graduates. Now in 2020 Snook has more than 40 staff in offices in Glasgow and London and competes with the large consultancies on public sector transformation initiatives. A further example would be AndThen, a design strategy studio established in 2016 by GSA IS graduate Santini Basra working with local government, start-ups, social innovation ventures, universities and Blue Chips. AndThen blends design research with futures thinking to help organisations navigate the potential that design has to facilitate and deepen conversations about a long-term mindset.

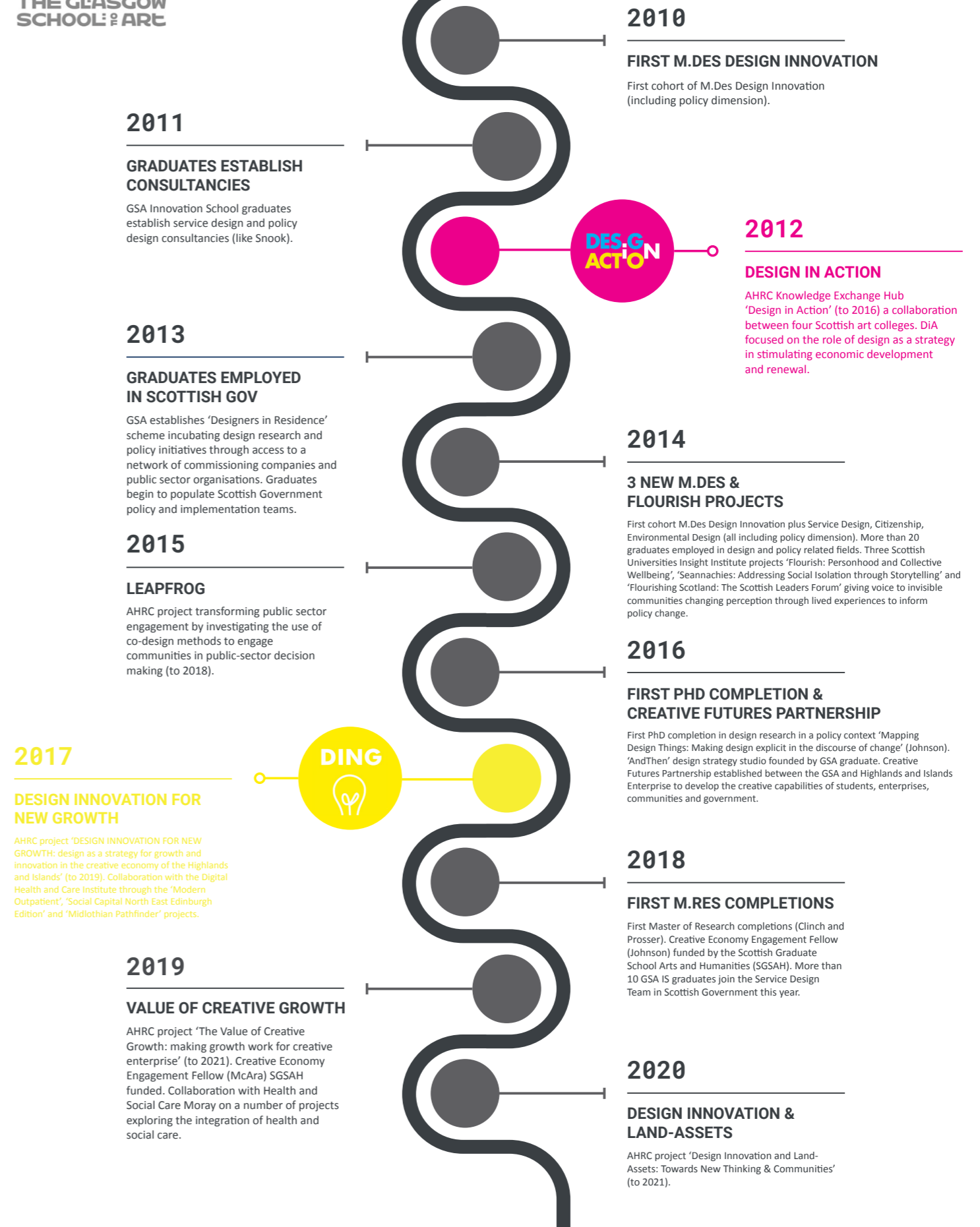
The GSA ‘Designers In Residence’ scheme has proved a fast track to establishing design and policy consultancies. The IS hosts graduates and supports them in establishing their nascent enterprises. By 2015, more than 20 GSA Innovation School graduates had populated many Scottish Government policy and implementation teams including the User Research and Service Design team, which more recently became the Office of the Chief Designer within the Digital Directorate.

The GSA Innovation School has a number of on-going design research and health policy initiatives particularly with the Digital Health and Care Institute (a collaboration between University of Strathclyde and the Glasgow School of Art) using design approaches for creative public engagement. For example, the IS project ‘Mapping Social Connection in North East Edinburgh’ responded to a challenge set by the Edinburgh Health and Social Care Partnership, to explore how they might engage with their partners, staff and citizens living and working locally, around the topics of social isolation and loneliness. In exploratory workshops with stakeholders and citizens, the team used bespoke design tools based on the board game ‘Monopoly’ both to understand the local context, and to generate insight into how to engage and support the community in tackling social isolation and loneliness. The project was intended to support key outcomes and actions of the NE Locality Improvement Plan – Health and Wellbeing, 2017-2022. The tools have since been adopted, adapted and widely used by the NE Locality engagement team to support asset-mapping and identify unmet needs. Most recently, the Scottish Government has commissioned the DHI, to join the national response, to identify and develop potential digital innovations that would add value and provide much needed support to front line staff over the coming weeks and months.

GSA also has a strong track record with the AHRC on design and policy related research such as the Knowledge Exchange Hub Design in Action and follow-on projects Design Innovation for New Growth, Value of Creative Growth and Design Innovation and Land Assets.

DESIGN & POLICY TIMELINE Glasgow School of Art

**INNOVATION SCHOOL
THE GLASGOW
SCHOOL OF ART**



LANCASTER UNIVERSITY – IMAGINATION

Imagination Lancaster was launched in 2007 as a design research centre with a £3m private donation to the university. Over the years, Imagination has built a bank of evidence around the socio-economic impact and potential of design in the context of design-driven innovation and social innovation through UKRI and EU funded projects as well as community and local government engagement initiatives. From the early days there has been a design and policy element within teaching including the first PhD completion in design policy focused the UK and South Korea in 2009, the first cohort of MA Design Management in 2009 and a 2009 EPSRC Doctoral Training Programme Highwire.

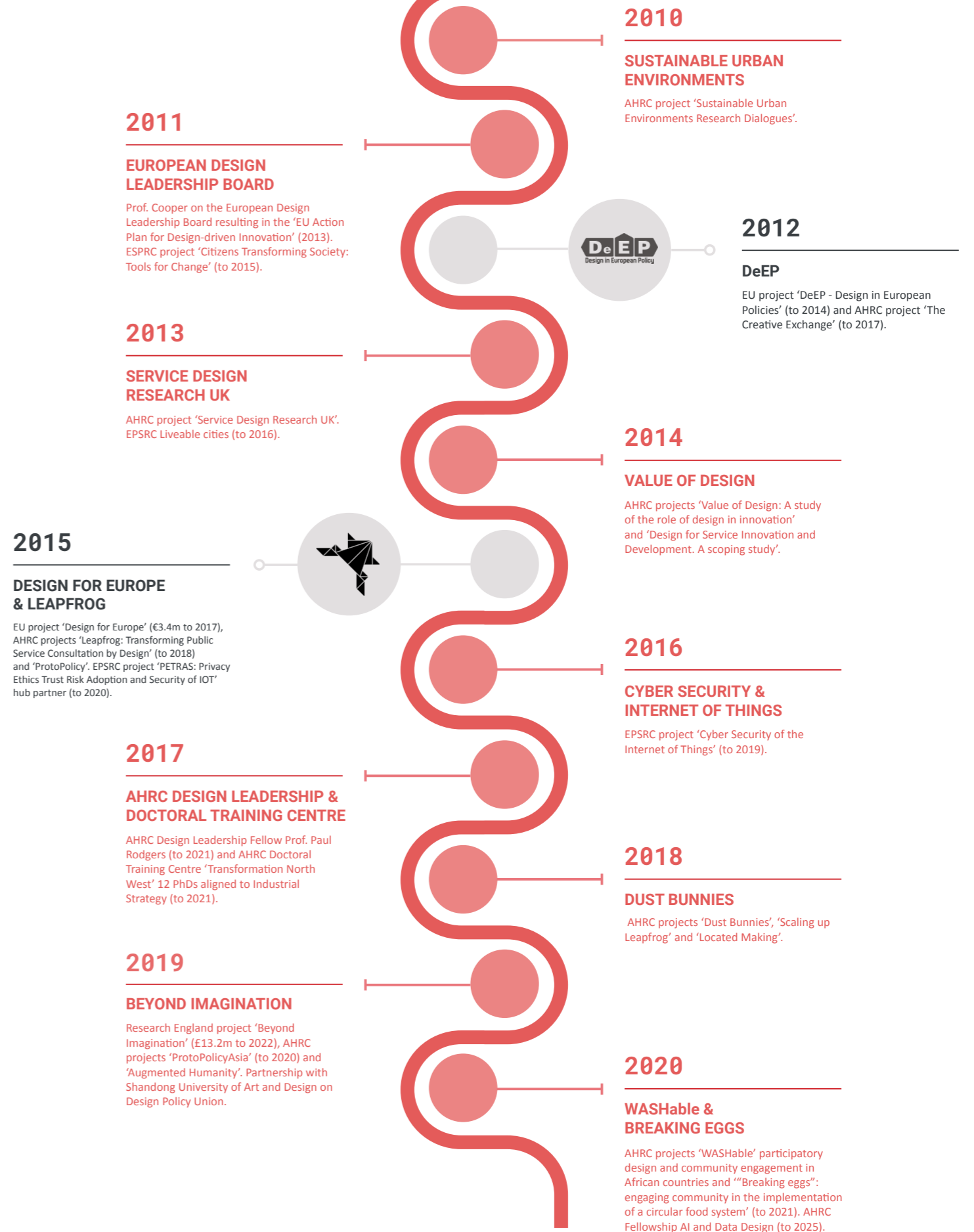
Based on her standing in the field, Professor Rachel Cooper was selected as one of 15 design leaders to be part of the EC's European Design Leadership Board which made 21 recommendations to EC Vice-President Tajani, which along with other advocacy efforts, resulted in the 2013 European Action Plan for Design-driven Innovation. One of the implementation mechanisms of the action plan was an ambitious platform to promote the value of design to businesses, government and the general public and Lancaster was a key partner in Design Council's €3.4 million project Design for Europe. Research at Lancaster has provided evidence of the role of design in economic growth such as the AHRC project 'Value of Design' (2014-2016) as well as EU funded project 'PROUD – People, Researchers and Organisations Using Design for Co-creation and Innovation' (2012-2015).

More recently, Imagination has joined forces with Shandong University of Art and Design creating a collaborative design management research 'think tank' the Design Policy Union. This partnership draws on the research strengths of both institutions, critically examining a variety of design policy and design management related themes. Activities will focus on and around design policy development and implementation, workshops, seminars and papers critically examining design-driven innovation. Lancaster also has a strong track record in design and health-related policy research through the work of Dr Emmanuel Tsekleves such as through the UKRI projects 'ProtoPolicy', 'ProtoPolicyAsia', 'WASHable' and 'Dust Bunnies'. Dust Bunnies focuses on the home as a source of infection of anti-microbial resistant bacteria by exploring hygiene practices in different environments in Ghana. This also covers the work of Professor Rachel Cooper, Professor Nick Dunn, Dr Chris Boyko and others on wellbeing and the environment through EPSRC projects such as 'Liveable Cities'. Such work has fed into policy through the UK Prevention Research Partnership and the International Science Council Urban Health and Wellbeing Initiative.

Action-based research in the domain of design for social innovation through initiatives such as the UKRI projects 'Citizens Transforming Society' (2011-2015), Creative Exchange (2012-2017) and 'Leapfrog: Transforming Public Service Consultation by Design' (2015-2018) has led to a move into the design for policy domain. Led by Professor Leon Cruickshank, 'Beyond Imagination' is a three-year £13.2 million initiative, co-funded by Research England and the university itself, to demonstrate how cutting-edge design research can address global challenges such as an ageing society, artificial intelligence and data, clean growth and health and wellbeing. Specifically, there is a horizontal cross cutting theme on policy and how that feeds into local and national recovery, the Industrial Strategy, future thinking and design for policy. For example, as part of Beyond Imagination, Louise Mullagh is compiling a database of how design is being used during the COVID-19 pandemic, from the re-design of service delivery in education and healthcare, the production of PPE equipment by 3D printing and hand-production, to graphic communication of public health messages. The aim is to understand the breadth of design responses being created during this time and to explore how design might help with our collective recovery and future resilience.

From 2017 to 2021, Professor Paul Rogers has been selected as the AHRC's Design Leadership Fellow to develop the design research area and support strategy development at the AHRC. His work around mapping the Evolving Landscape of Design Research in the UK has led to new AHRC programmes and a strategy focus on design particularly in light of what design can achieve in a post-Covid world. Paul is championing what design research can contribute to society, services, policy-making, the economy and the human experience and has placed particular emphasis on building capacity among early career researchers.

DESIGN & POLICY TIMELINE Lancaster University



ROYAL COLLEGE OF ART

Based on his experiences being embedded in the Chilean *Laboratorio de Gobierno*, Dr Nicolás Rebolledo has established the RCA Policy Platform as well as a number of collaborations between various local and national government departments for RCA students to work on live service and policy challenges. The Policy Platform is an initiative to foster collaboration between the RCA and local and national government through enabling exchanges between policy-makers, professional designers and RCA students. For example, a major focus of the initiative is Envisioning the Future of Government stimulating discussion and visualising alternative ways in which government could work. To help do this, RCA students co-designed a process to take participants on a creative journey from identifying challenges that governments are currently facing through to approaches that could be taken to tackle them. The initiative focuses on Government's relationship with citizens, public servants' ability to drive change, the way government defines and measures success and Government's role in relation to other actors in society. Examples of the approaches as enablers of change included making empathy central to policy-making, devolving power to local government and revising the incentives structures across the civil service. There was a resounding call for a shift away from individualism to collectivism, from working for citizens to working with them, and from a culture of management to one of meaning and value creation.

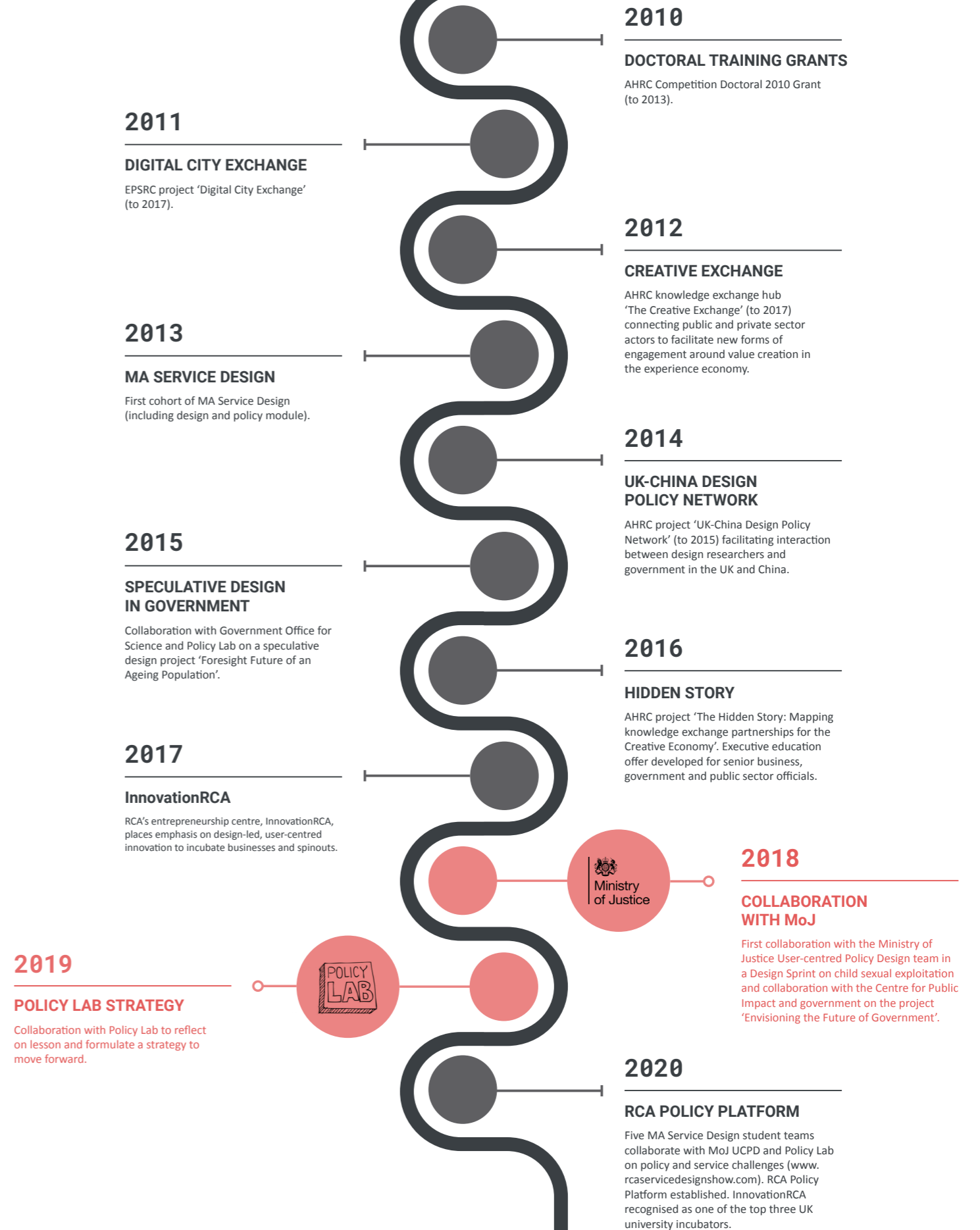
Since 2008, the RCA has had an on-going collaboration with the Ministry of Justice User-centred Policy Design team where more than ten student teams have collaborated with policy-makers to explore complex policy challenges from a user-centred perspective particularly through Design Sprints. These approaches have introduced new design research methods to the MoJ UCPD team and link into a wider desire to change the way that government works. These Design Sprints involve significant preparation, understanding the existing research on the policy challenge, followed by rapid user research, redefining the challenge from the user perspective and co-creating policy and service concepts. Each team had a government policy-maker, a professional designer and an RCA service design student. The design teams have worked on gritty policy challenges such as child exploitation and victim support. The RCA has established a platform to showcase the collaborations between the public sector and RCA students.

As demand for policy design expertise grows, it is important for policy labs and UCPD teams to apply design approaches to their own operations in order to reflect on what has been achieved and develop strategies for moving forward. For example, Clive Grinyer at the RCA collaborated with Policy Lab for 6 months in 2019 in order to help the team develop their strategy. For him, it is important for policy labs to "prove the value through metrics and tell the story through case studies". The co-design process resulted in eight provocations of different modes by which policy labs could move forward such as acting as the 'Facilitator' mode – acting as a broker connecting policy teams and design experts or 'Mothership' mode – stewarding and inspiring the network of other policy labs and UCPD teams across multiple levels of governance.

The Global Innovation Design is a joint Master's degree between Imperial College London and the Royal College of Art. Students receive a double Master's – an MSc from Imperial and an MA from the RCA. This is a transnational initiative bringing together design, culture and enterprise from Europe, North America and Asia with an emphasis on internationally-oriented design and innovation. Furthermore, in 2020 InnovationRCA, the RCA's entrepreneurship centre was recognised as one of the top three university incubators in the UK in terms of the number of deals secured by their spinout companies. Design-led, user-centred innovation is central to the approach operated by the centre as a factory of ideas that are incubated into successful businesses.

DESIGN & POLICY TIMELINE

Royal College of Art



UNIVERSITY OF THE ARTS LONDON – LCC & CSM

UAL is a large institution with six colleges and this summary focuses on the design and policy work at London College of Communication (LCC) and Central Saint Martins (CSM) particularly on the design for policy work of Professor Lucy Kimbell, Director, Social Design Institute and Public Collaboration Lab led by Professor Adam Thorpe.

Building on her AHRC Fellowship at Policy Lab Professor Lucy Kimbell has pioneered work around prototyping policy, delivered training on design methods for civil servants and led interventions with the EU Policy Lab. She has co-organised a Strategic Design and Public Policy symposium with the UN Institute for Disarmament Research, was a co-investigator on ProtoPublics project developing participation in social design through prototyping projects, programmes and policies and has instigated a connection between UAL and King’s College London’s Department of Political Economy to jointly supervise four PhDs at the intersection of design and policy research. Currently, Lucy is contributing policy analysis to design research projects such as on knife crime with the Design Against Crime Centre, supporting design researchers to develop skills in policy analysis and organising knowledge exchange events between civil servants and design researchers such as with Policy Lab.

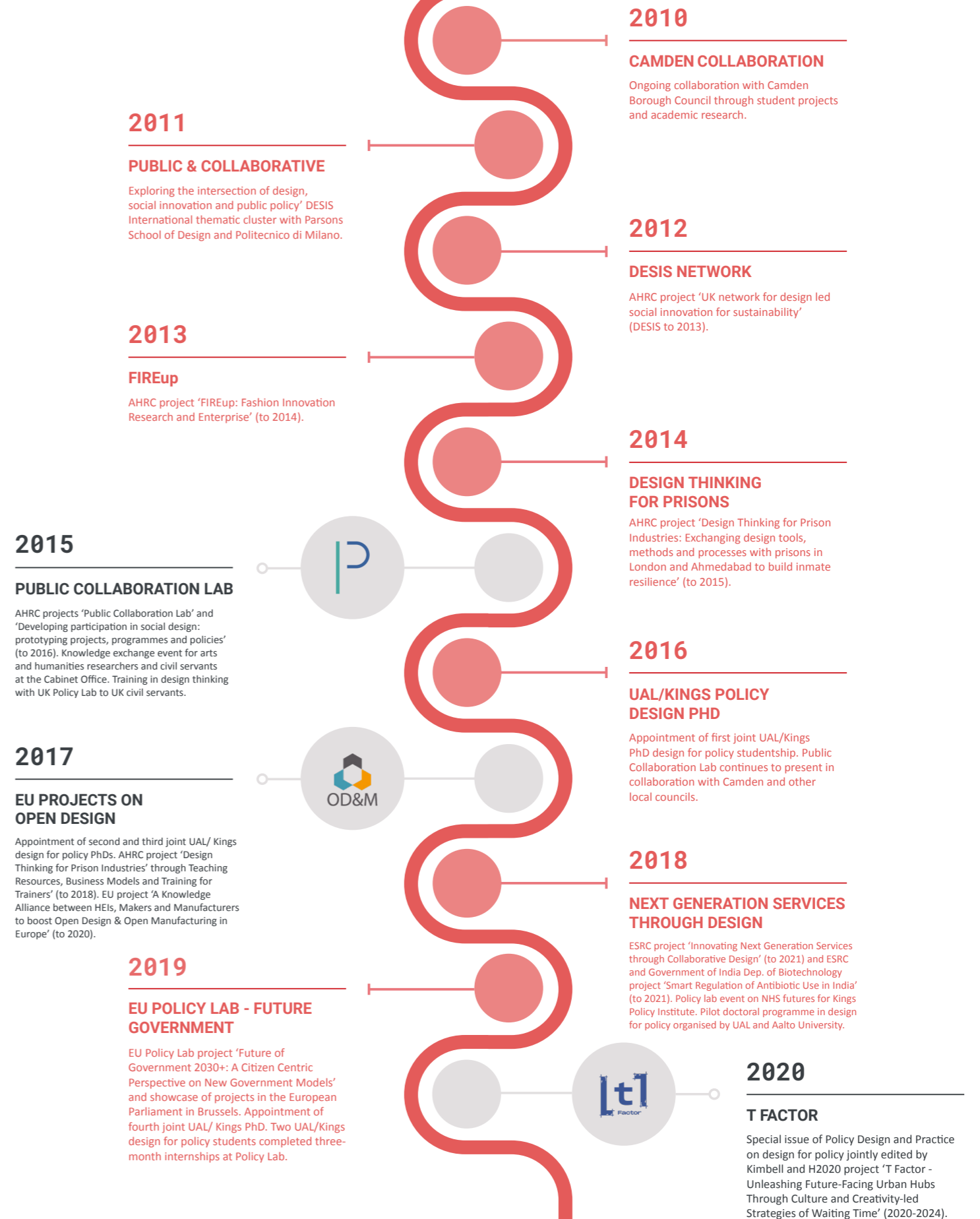
Professor Lucy Kimbell was a lead consultant for the EU Policy Lab on the ‘Future of Government 2030+’ co-designing the process involving more than 150 participants from civil society organisations, policy labs, civil servants, think tanks and business representatives as well as 100 design students and academic staff. The project brought together six Design Schools from across Europe, including University of the Arts London, to develop provocative scenarios for the future of government. UAL students worked with the Public Collaboration Lab and Camden Council on seven proposals for the future of government. Each team proposed either a future model of ‘open democracy’ or a future model of service delivery applied to meeting Camden’s aspirations for the future as detailed in Camden 2025 – a new vision for the future of Camden. The UAL students presented

their projects to the leader of Camden Council and Cabinet Office Policy Lab. One of the UAL concepts was published in the EU Policy Lab report – co-authored by Kimbell – and showcased in the European Parliament in Brussels in March 2019. This also resulted in a special issue of Policy Design and Practice on design for policy jointly edited by Kimbell.

Since August 2019, Public Collaboration Lab has been working with council (Camden Council), community (Somers Town Community Association/The Living Centre) and commercial (Lendlease) partners in the provision of a public space for creative collaboration. Co-funded by all partners, MAKE@StoryGarden (M@SG) is a versatile community studio space for creative collaboration with and by the community, bringing together the skills and talents of those who live and work in the Somers Town and Camden area to address local issues, policy and social challenges. Learning from M@SG is contributing to the development and delivery of Camden Council’s Neighbourhood Hubs programme. The PCL experience has contributed to the development and delivery of a successful EU Erasmus Plus Knowledge Alliance project between HEIs, Makers and Manufacturers to Boost Open Design & Manufacturing in Europe called OD&M, which enabled UAL to develop their challenge driven learning approach working in collaboration with international partners.

Learnings from the PCL linked to infrastructuring ‘quadruple helix innovation’ through place-based collaborative design experiments have informed the development of a successful EU H2020 bid called ‘T Factor - Unleashing Future-Facing Urban Hubs Through Culture and Creativity-led Strategies of Waiting Time’ (2020-2024). The T Factor project is exploring participatory futures in six European cities by co-creating future services and scenarios in the meanwhile within the development sites of some of Europe’s largest regeneration projects, including Euston HS2.

DESIGN & POLICY TIMELINE University of The Arts London



RECOMMENDATIONS

1. UKRI & AHRC

1. Establish a platform to communicate the outcomes of policy-related UKRI funded design research to policy-makers to embed the lessons from academia into policy practice and connect to GOV.UK's Departments' Areas of Research Interest and Government Office for Science.
2. Encourage collaboration between design research institutions and policy research institutions through AHRC-ESRC joint calls to generate an evidence base of the impact of design for policy through qualitative and quantitative approaches to encourage genuine multi- and trans-disciplinary research.
3. Develop a mechanism to monitor the impact from AHRC design-related policy and service development projects to embed approaches into more mainstream government practice. Note that this is different to the existing Follow-on Funding, which was also cited by academics as a very valuable scheme.
4. Establish a strategic design research initiative (similar to the Creative Clusters) focused on directly supporting government, businesses and the general public to use design more strategically. Although there should be a thematic focus, to avoid even greater regional disparity (like in Northern Ireland and Wales in particular) there should also be a regional focus. Incorporate design for recovery into the call to support small companies to use design and showcase what design can achieve for regional growth.
5. Launch a futures design call engaging citizens in constructive dialogue about the future of various economic and social drivers like the future of work, banking, the high street, government decision-making, sustainability and artificial intelligence.
6. Appoint Chief Design Officers within UKRI, AHRC and Innovate UK who would also sit on the Executive Boards to align design to government R&D investment targets and ensure more effective design leadership.

2. GOVERNMENT & POLICY LABS

7. Ensure that policy development is user-centred in the way that service delivery is user-centred through design approaches and by engaging with design providers such as academic institutions, design agencies and consultancies. Engage with design researchers to update the ROAMEF policy cycle to a more user-centred model. Integrate design into the reform of the Policy Profession. Appoint a Chief Design Officer to coordinate design leadership across government. Experiment with rapid policy prototyping using design methods.
8. Establish formalised, cross-government mechanisms to enable meaningful collaboration between academic institutions and government policy and service teams on design-related interventions and research. Connect with the GOV.UK's Departments' Areas of Research Interest and Government Office for Science.
9. Establish a network of government labs and teams with experience of policy design (including the devolved nations) and connect with policy teams looking to enhance capacity in order to create a bank of evidence, case studies, lessons learned and research to mainstream the approaches and engage with academia to consolidate and advance the practice and theory of design for policy.
10. Integrate design into the induction processes, leadership modules and continuous professional development provisions of all civil servants and develop staff exchanges and secondment opportunities to enable civil servants to build capacity for policy design.
11. Develop a vision and action plan for how design will be used across government in policy development and service delivery in end-to-end policy-making as well as in priority policy domains like innovation, digital, creative industries, circular economy and education. Consider departmental visions and action plans for design.
12. Engage with design researchers to reimagine democracy and political structures (design for politics) and enhance citizen participation in government decision-making in a digital age through more effective public engagement, consultation and policy prototyping.

3. BUSINESS SUPPORT ORGANISATIONS

13. Establish a network of devolved and national business support providers and assemble a design task force to ensure continuity, share good practice and use design to improve the user experience of all innovation programmes, including design support programmes, to ensure that the business support landscape is fit for purpose.
14. Integrate design as a component of all innovation programmes and financial mechanisms but also have dedicated design support programmes to put a spotlight on design because design is an accessible way for small companies to innovate and conduct research on and evaluations of programmes.
15. Ensure that design remains part of devolved innovation support mechanisms after the end of European Union Structural Funds in Wales, Scotland and Northern Ireland to ensure there is not a funding vacuum for companies to innovate through design.
16. Consider whether the devolved nations or their key business support actors should develop design action plans, like Innovate UK, or integrate design into organisational action plans to highlight the importance of design-driven innovation for business support.
17. Rethink design policy on a global scale where design is championed as one of the UK's soft powers to promote export and promulgate open government models.

4. ACADEMIC INSTITUTIONS

18. Establish collaboration mechanisms with government such as placements, design sprints or challenges, to provide a symbiotic learning environment for government and students.
19. Make policy a more explicit component of design courses on the public sector so that even if students do not work in policy roles they have an understanding of policy processes in order to collaborate more effectively across government.
20. Explore what universities can offer government, such as being part of procurement frameworks to provide user research expertise and service and policy interventions through design, and promote these offerings to government.
21. Explore alternative funding models to enable government departments to participate as formal partners on collaborative research bids.
22. Conduct research on the future skills needs of the design sector, government, business support and other stakeholders to ensure that supply meets demand for future skills agendas.

APPENDICIES

CONTACT

Dr Anna Whicher
Head of Policy Design
PDR – International Centre for Design & Research
Cardiff Metropolitan University
www.pdronline.co.uk
awhicher@cardiffmet.ac.uk

DESIGN & POLICY: FUTURE RESEARCH QUESTIONS

Design for policy

- What is the rationale for a design approach to policy (why design for policy)?
- What is the role of empathy in the policy process?
- What are ethical considerations surrounding design for policy?
- What are the skills of a 'policy designer'?
- Where and how does design add value to different styles of government intervention?
- What tools and techniques are most effective for fostering innovation in the policy process?
- Why does public service development 'start with user needs' whereas policy development does not?
- What is the role of rapid policy prototyping through design in the post-Covid world?
- How will Covid-19 impact on the design for policy agenda?
- How can governments move from rigid, linear planning to being adaptive, dynamic and managing portfolios of experiments?
- Is there a place for design further upstream from policy within politics?
- What is the legitimacy of the designer, policy-maker or politician, and how are they held accountable for their decisions?
- How do you foster more effective design leadership in government?

Design and policy labs

- What is the lifecycle of a Policy Lab? How are labs established, how do they evolve? Why do some close?
- Why have labs been more successful at national and devolved levels rather than local level?
- What are the operating models, people skills, processes and offerings of labs?
- What are the challenges facing labs in upscaling and building capacity for design in the wider civil service and how can they be overcome?
- How do labs 'sell' design approaches to policy teams?
- Have policy design and Policy Labs passed beyond the 'peak of inflated expectation' and the 'trough of disillusionment'?
- If the aim of labs is to mainstream design and other innovation approaches, can the closing of labs be seen as success? Or will they continuously look for newer and newer approaches?

Design in policy and support programmes

- Is it more effective for design to be integrated into mainstream innovation programmes or to have dedicated design support programmes?
- Are financing or mentoring programmes more successful at embedding long-term design capacity within companies?
- Should design support focus on increasing design capacity within companies on the lower rungs of the design ladder or should design support focus on supporting companies nearer the top of the ladder to use design more strategically?

RESEARCH PARTICIPANTS

Government Interviewees

Number of Interviewees	Department
4	BEIS – Department for Business, Energy & Industrial Strategy
1	Bromford Lab
3	Cabinet Office
2	DfE – Department for Education
1	DIT – Department for International Trade
1	DWP – Department for Work and Pensions
2	FCO – Foreign and Commonwealth Office
1	GDS – Government Digital Service
1	HMRC – HM Revenue & Customs
1	Home Office
2	MHCLG – Ministry of Housing, Communities & Local Government
1	Northern Ireland Department of Finance
2	MoJ – Ministry of Justice
1	Scottish Government
1	Welsh Government
24	Total

Academic Interviewees

Number of Interviewees	Institution
1	Cardiff University
2	Cardiff Metropolitan University
2	Glasgow School of Art
4	Lancaster University
1	Loughborough University in London
1	Manchester Metropolitan University
3	Royal College of Art
1	Strathclyde University
3	University of the Arts London
1	University College London
19	Total

Other Interviewees

Number of Interviewees	Organisation
1	Design Council
2	UKRI – AHRC
1	UKRI – Innovate UK
1	UKRI – Knowledge Transfer Network
1	Design Museum
6	Total

Interim Workshops

Number of participants	Category	Date
75	Government	13/05/20
13	Academic	20/05/20
88	Total	

BIBLIOGRAPHY

Amatullo, M. (2014) 'The Branchekode.dk Project: Designing with Purpose and Across Emergent Organizational Culture', in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Allen, J. (2020) 'Embedding user-centred design in policymaking at the UK Ministry of Justice', Master's Thesis at Laurea University of Applied Sciences, Finland, February 2020.

Barbero, S., & Bicocca, M. (2017) 'Systemic Design approach in policy-making for sustainable territorial development', The Design Journal 20(1): Design for Next: Proceedings of the 12th European Academy of Design Conference, Sapienza University of Rome, 12-14 April 2017, pp.3496-3506.

Bason, C. (2014) 'Introduction: The Design for Policy Nexus', in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Bason C., & Austin, R. (2019) 'The Right Way to Lead Design Thinking', Harvard Business Review March-April 2019 pp.82-91.

BEDA (2018) 'European Design Report 2.0', Bureau of European Design Associations, Report Co-funded by the Creative Europe Programme, Brussels, Belgium.

BEDA (2019) 'Towards a Next Generation Design Policy for Europe', Position Paper presented to the European Commission December 2019, Helsinki, Finland.

BEIS (2017) 'Industrial Strategy Building a Britain fit for the future', Department for Business, Energy and Industrial Strategy, London, UK.

BIS (2011) 'Innovation and Research Strategy for Growth', Department for Business, Innovation and Skills, ISBN: 9780101823920, London, UK.

Bentley, T (2014) 'Design in Policy: Challenges and Sources of Home for Policymakers', in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Blomkamp, E. (2018) 'The Promise of Co-Design for Public Policy', Australian Journal of Public Administration, 77(4), pp.729-743.

Bobrow, D. (2012) 'Policy Design: Ubiquitous, Necessary and Difficult' in Handbook of Public Policy, ed Peters, B., and Pierre, J. SAGE Publications, 2012, pp.75-95.

Boyko, C., & Cooper, R. (2014) 'Using an Urban Design Process to Inform Policy', in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Brown, T. (2009) 'Change by design: How design thinking transforms organizations and inspires innovation', Harper Business, New York, USA.

Buerkli, D. (2016) 'Government Innovation Hype Cycle', Centre for Public Impact blog <https://www.centreforpublicimpact.org/10-government-innovations-and-their-place-in-the-hype-cycle/>

Burkett 2018 'Evidence-based practice plus practice-based evidence', taksi.org.au

Carstensen, H., & Bason, C. (2012) 'Powering Collaborative Policy Innovation: Can Innovation Labs Help?', The Innovation Journal: The Public Sector Innovation Journal 17(1), pp.2-25.

Christiansen, J. & Bunt, L. (2014) 'Innovating Public Policy: Allowing for Social Complexity and Uncertainty in the Design of Public Outcomes', in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Dunne, A., & Raby, F. (2013) Speculative Everything: Design, Fiction and Social Dreaming, The MIT Press.

Edler, J., Cunningham, P., Gok, A., & Shapira, P. (2016). 'Handbook of Innovation Policy Impact', EU-SPRI Forum on Science, Technology and Innovation Policy series. Edward Elgar Publishing: UK.

European Commission. (2010). 'Europe 2020 Flagship Initiative Innovation Union'. SEC(2010) 1161. European Commission, Brussels, Belgium.

European Commission (2013) 'Implementing an Action Plan for Design-driven Innovation in Europe', SWD(2013)380, 23.09.2013, Brussels, Belgium.

Evans, M., & Chisholm, J. (2016) 'Design for Europe: Employing Scenarios to Benchmark the Effectiveness of European Design Policy', The Design Journal, 19(2), pp. 253-268.

Finnish Ministry of Employment and the Economy. (2013) 'Design Finland Programme. Proposals for Strategy and Actions', Helsinki, Finland.

Fuller, M., & Lochard, A. (2016) 'Public policy labs in European Union Member States', Report prepared for EU Policy Lab, European Joint Research Centre, EUR28044, doi:10.2788/799175.

Gaynor, L., Swiatek, P., & Whicher, A. (2020) 'By Design Grant Evaluation', Report produced by PDR for Scottish Enterprise as part of EU project User Factor, Cardiff, UK.

HM Treasury (2018) 'The Green Book. Central Government Guidance on Appraisal and Evaluation', HM Treasury, ISBN 978-1-912225-57-6, London, UK.

Hobday, M., Boddington, A., & Grantham, A. (2012) 'Policies for design and policies for innovation: Contrasting perspectives and remaining challenges', Technovation 32, pp. 272-281.

Howlett, M. (2009) 'Governance modes, policy regimes and operational plans: A multi-level nested model of policy instrument choice and policy design', Policy Sci (42) pp.73-89.

Howlett, M. (2014) 'From the 'old' to the 'new' policy design: design thinking beyond markets and collaborative governance', Policy Sci (47) pp.187-207.

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) pp.21-48.

Innovate UK (2015) 'Design in Innovation Strategy 2015-2019', Innovate UK, Swindon, UK.

Innovate UK (2020) 'Design in Innovation Strategy 2020-2024', Innovate UK, UK Research and Innovation, Swindon, UK.

Junginger, S. (2014) 'Towards Policymaking as Designing: Policymaking Beyond Problem-Solving and Decision-making' in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Kimbell, L. (2015) 'Applying Design Approaches to Policy Making: Discovering Policy Lab', Report produced for AHRC Fellowship, University of Brighton, UK.

Kimbell, L., & Bailey, J. (2017) 'Prototyping and the New Spirit of Policy-Making', CoDesign International Journal of CoCreation in Design and the Arts, 13(3). pp. 214-226.

Kimbell, L., & Vesnić-Alujević, L. (2020) 'After the toolkit: anticipatory logics and the future of government', Policy Design and Practice, DOI: 10.1080/25741292.2020.1763545

Maeda, J. (2019) 'Design in Tech 2019. How to Speak Machine', Design in Tech Series, MIT Press.

Mintrom, M., & Luetjens, J. (2016) 'Design Thinking in Policymaking Processes: Opportunities and Challenges', Australian Journal of Public Administration, 75(3), pp. 391-402.

Moultrie, J. & Livesey, F. (2009) 'International Design Scoreboard - Initial indicators of international design capabilities', Design Management Group, Institute for Manufacturing, University of Cambridge, UK.

Olejniczak, K., Borkowska-Waszak, S., Domaradzka-Widła, A., & Park, Y. (2020) Policy labs: the next frontier of policy design and evaluation? Policy & Politics, 48(1), pp. 89-110.

Puttick, R., Baeck, P., & Colligan, P. (2014) 'i-teams. The teams and funds making innovation happen in governments around the world', Nesta and Bloomberg Philanthropies report, London, UK.

Raulik-Murphy, G., Cawood, G., & Lewis, A. (2010) 'Design Policy: An Introduction to What Matters', Design Management Review 21(4), pp.52-59.

Sanders E., & Stappers P.J., (2008) Co-creation and the new landscapes of design, Co-Design, 4(1) pp.5-18.

Sharif, N. (2006) 'Emergence and development of the National Innovation Systems concept', Research Policy 35, pp.745-766.

Siodmok, A. (2014) 'Designer Policies', RSA Journal 4, London, UK, pp.24-29.

Siodmok, A. (2010) 'Lab Long Read: Human-centred policy? Blending 'big data' and 'thick data' in national policy', Open Policy Blog, 17 January 2010. <https://openpolicy.blog.gov.uk/2020/01/17/lab-long-read-human-centred-policy-blending-big-data-and-thick-data-in-national-policy/>

Smits, E., Kuhlmann, S. & Shapira, P. (2012) 'The Theory and Practice of Innovation Policy: An International Research Handbook', Edward Elgar Publishing, London, UK.

Staszowski, E., Brown, S., & Winter, B. (2014) 'Reflections on Designing for Social Innovation in the Public Sector: A Case Study in New York City', in Design for Policy, ed Bason, 2014, Gower Publishing, Farnham, UK.

Swann, P. (2010) 'The economic rationale for a national design policy', BIS Occasional Paper 2, London, UK.

Taylor, M. (2014) 'The Policy Presumption', RSA Journal 4, London, UK, pp.10-15.

Whicher, A. (2017) 'Evaluation of the Northern Ireland Public Sector Innovation Lab', Independent Report commissioned by the Northern Ireland Department of Finance, produced by PDR – International Design and Research Centre, Cardiff Metropolitan University, UK.

Whicher, A., & Crick, T. (2019) 'Co-design, evaluation and the Northern Ireland Innovation Lab', Public Money & Management, 39:4, pp.290-299.

Whicher, A., & Walters, A. (2017) 'Mapping Design for Innovation Policy in Wales and Scotland', The Design Journal 20:1, pp.109-129.

Williamson, B. (2015) 'Governing methods: policy innovation Labs, design and data science in the digital governance of education', Journal of Educational Administration and History 47(3), pp.251-271.

Vaz, F., & Prendeville, S. (2019) 'Design as an Agent for Public Policy Innovation', Academy for Design Innovation Management Conference proceedings, Research Perspectives in the Era of Transformations, London, UK, 19-21 June 2019, pp.143-156.

Vesnić-Alujević, L., Stoermer, E., Rudkin, J., Scapolo, F., & Kimbell, L. (2019). 'Future of Government 2030+: A Citizen-Centric Perspective on New Governance Models', Publication Office of the European Union, Luxembourg.

CASE STUDIES

	Institution	Category	Title	Principal Investigator
1	Brighton University	Design for Policy	Applying Design Approaches to Policy Making: Discovering Policy Lab	Professor Lucy Kimbell
2	Cardiff Metropolitan University	Design for Policy	People Powering Policy	Dr Anna Whicher
3	Cardiff Metropolitan University	Design for Policy	Mapping Design Innovation Ecosystems	Professor Andy Walters
4	Glasgow School of Art	Design for Policy	Design Innovation for Growth	Professor Lynn-Sayers McHattie
5	Lancaster University	Design for Policy	ProtoPolicyAsia	Dr Emmanuel Tseklevs
6	Manchester Metropolitan University	Design for Policy	Developing an Action Plan for the Strategic Use of Design in the UK	Professor Martyn Evans
7	Royal College of Art	Design for Policy	LabGob Chile	Nicolás Rebolledo
8	University of the Art London	Design for Policy	Public Collaboration Lab	Professor Adam Thorpe

