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Anna Whicher & Tom Crick

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Co-design, evaluation and the Northern Ireland Innovation Lab

Anna Whicher^a and Tom Crick^b

^aCardiff Metropolitan University, UK; ^bSchool of Education, Swansea University, UK

ABSTRACT

Around the world there are more than 100 policy labs—multi-disciplinary government teams developing public services and policies using innovation methods to engage citizens and stakeholders. These policy labs use a range of innovation methods and approaches, including co-production, co-creation, co-design, behavioural insights, systems thinking, ethnography, data science, nudge theory and lean processes. Although the methods may vary, one element is consistent: policy labs actively, creatively and collaboratively engage the public and a wide range of stakeholders in jointly developing solutions. The Northern Ireland Public Sector Innovation Lab (iLab) is part of a growing UK and international community of policy labs using co-design to engage with users for value co-creation, aiming to improve public governance by creating a safe space to generate ideas, test prototypes and refine concepts with beneficiaries. Drawing on iLab's experience, this paper explores three questions: What are the main determinants of effective co-design? What are the unintended consequences of co-design? And what lessons can be learned from iLab and shared with other policy labs?

IMPACT

There is a need to reinstate the legitimacy of public policy-making and public service development through more effective citizen engagement. To experiment with more creative and user-centred approaches, governments are establishing Policy Labs to engage citizens at multiple stages of the development process. The Northern Ireland Public Sector Innovation Lab (iLab) is part of a growing UK and international community of Policy Labs using co-design to engage with users for value co-creation, aiming to improve public governance by creating a safe space to generate ideas, test prototypes and refine concepts with beneficiaries.

KEYWORDS

Co-design; co-production; evaluation; Northern Ireland; policy labs; public services

Introduction

The Northern Ireland Public Sector Innovation Lab (iLab) aims to improve public services and public policies by creating a safe space to co-create ideas, test prototypes and refine concepts with citizens, civil servants and stakeholders (see www.finance-ni.gov.uk/articles/introduction-innovation-lab). It was established in April 2014 by the then minister for finance in the Public Sector Reform Division of Northern Ireland's Department of Finance. In its first two years, iLab led 18 projects focused on a wide range of service and policy challenges. The challenges ranged from improving the use of data analytics within the government, to encouraging people to pay court fines, and optimizing how patients manage their medication. In autumn 2016, iLab commissioned an evaluation of both its activities and governance based on 30 interviews with lab staff, the wider Northern Ireland Civil Service (NICS) and external stakeholders. The outputs included four impact case studies, an analysis of the strengths and weaknesses of the Lab's leadership, operating model, methods and capacity, as well as a series of recommendations for enhancing impact. Policy labs tend to position themselves as a 'safe space to innovate',

so evaluations of their activities and governance are not common. There has been a policy drive for increased innovation—with citizens, for citizens—and iLab has adopted co-design as one of its main methods. The iLab is uniquely positioned to drive more transparent and inclusive public decision-making.

Based on the evaluation, this paper focuses on the determinants of effective co-design, as well as its unintended consequences, in order to advance knowledge and share lessons with other labs. Based on the iLab, the main determinants of effective co-design are:

- Clarity of language and process.
- Clear selection criteria for projects.
- Building in evaluation from the outset.
- Promoting good practices to the wider community.
- Support from senior decision-makers.

Conversely, from iLab's experience, there were two significant unintended consequences of co-design—raising stakeholder expectations and a lack of prototyping prior to implementation, which are explored in more detail in this paper. This is also framed by the nature of 'value'—what sort of value are these labs

attempting to create, how is value understood, and how it is enacted? This evaluation and analysis provides the framework for answering our three main questions:

- What are the main determinants of effective co-design?
- What are the unintended consequences of co-design?
- What lessons can be learned from iLab's experience in Northern Ireland and shared with other policy labs?

Theory versus practice

To what extent can academic theory on co-design drive government practice in policy labs? There are three parts to this question: What is co-design? What are policy labs? What is the role of academic theory in government practice in this context?

What is co-design?

Co-design has entered the lexicon of government, politics and policy-making (Bason, 2014, p. 4; Christiansen & Bunt, 2014, p. 47; Williamson, 2015, p. 258; Voorberg, Bekkers, & Tummers, 2015). Co-design is a well-established approach to creative practice, particularly within the public sector, with its roots in the participatory design techniques developed in Scandinavia in the 1970s (Puttick, Baeck, & Philip Colligan, 2014, p. 13), but having taken distinctly different paths in the US and in Europe (Sanders & Stappers, 2008, p. 5). Participatory design is an approach which is focused on processes

and procedures of design and is not a design style; co-design is often used as an umbrella term for participatory, co-creation and open design processes. Thus, it can be a difficult concept for civil servants and policy-makers to grasp and ground in their domain. Currently, policy labs adopt a broad range of design-related terminology to refer to designing with citizens, including co-design, service design, user-centred design, policy design, strategic design, participatory design and design thinking, among others. For those not immersed in the academic discipline—or perhaps in practice—the distinction between these various terms is certainly not clear, particularly for those groups directly engaging with the labs—civil servants, representation groups and the general public. This evolution in design research from a user-centred approach to co-designing has changed the roles of the designer, the researcher and the person formerly known as the 'user' (Sanders & Stappers, 2008, p. 5). Design is interpreted differently by its many stakeholders depending on the context and agenda; furthermore, theory and practice on design is expanding and evolving (Borja de Mozota, 2002, p. 94; Hobday, Boddington, & Grantham, 2012, p. 272; Utterback et al., 2006, p. 1). Although design has many attributes, and the literature on design is by no means homogenous, increasingly, design terminology is converging around the notion of creative, user-focused problem-solving (Brown, 2009, p. 236; Verganti, 2009, p. 12; Bason & Schneider, 2014, p. 38; Whicher, 2017, p. 81).

Sanders and Stappers (2008, p. 5) mapped a design research landscape in which more than 20 distinct design research areas can be identified (see Figure 1).

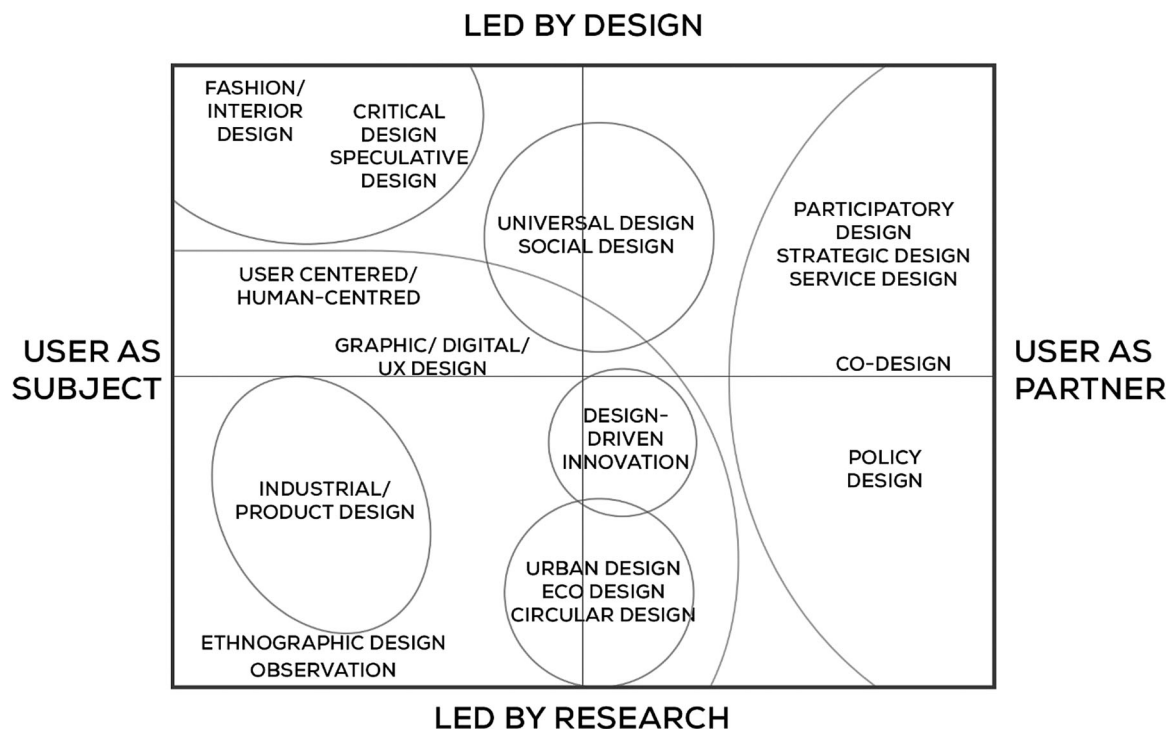


Figure 1. Design research landscape (adapted from Sanders & Stappers, 2008, p. 5).

The design research landscape is helpful for understanding co-design in the context of other design research domains. Sanders and Stappers (2008, p. 5) contend that, since the 1970s, there has been a gradual paradigm shift from the ‘user as subject’ with user-centred design approaches to the ‘user as partner’ with co-design. The design research landscape positions a number of design research areas across an x-axis from ‘user as subject’ to ‘user as partner’ and on the y-axis from ‘led by research’ to ‘led by design’. The implication being that co-design occupies a position that is both research-led and design-led but firmly positioned at the ‘user as partner’ end of the spectrum. The plotting of the various design research areas along the x- and y-axis should be interpreted broadly as the landscape is ‘continually changing’ (Sanders & Stappers, 2008, p. 17). As such, new design domains have begun to attract attention in government, especially service design in the early 2000s (Morelli, 2002, p. 3) and policy design in the late 2000s (Bason, 2010, p. 5), among others, and have thus been added to the design research landscape. This illustrates that the field of design research is both expanding but arguably fragmenting.

There is a trend to prefix ‘co’ onto words to imply jointly developing; such as co-design, co-creation and co-production. Again, to a specialist in the field these concepts are distinct, but the nuances between them are confusing to generalists within the civil service (Osborne, Radnor, & Strokosch, 2016). It raises the question of whether they only require a higher-level understanding of why and how to involve citizen, leaving the finer details to domain experts. For Bason (2014, p. 4) ‘design is shifting to the concept of “co”: to co-laboration, co-creation and co-design as a central feature, emphasising the explicit involvement of users, partners, suppliers and other stakeholders in the design process’. Williamson (2015, p. 258) specifically connects co-design to policy and public service development as the shared elucidation of ‘options between actors in the governance system and its end-uses’. According to Bason and Schneider (2014, p. 37): ‘Co-design and other participatory design methods appear as valuable tools for fostering citizen engagement and supporting shared models for decision-making’. The transition from user-centred design to co-design implies the active involvement of users at multiple stages of the development process from analysing user needs, defining the challenge with users, involving users in jointly developing concepts, testing prototypes with users and refining solutions with users. This shift from user as subject to partner has fundamentally altered the role of the citizen from passive consumers to public services and public policies to active collaborators in their formulation. Again, it is framed by the nature (and multiple dimensions) of ‘value’—what sort of value are these processes attempting to

create, how is value understood, and how it is enacted? While the concept of co-creation has been considered in public management theory in recent years, the discourse has suffered from conceptual limitations; in some circumstances it has been offered as inter-changeable with co-production. We thus have to consider how the public service organization is regarded as a co-creator of value, not just the service user (Osborne, 2018). The following definition was adopted for the evaluation: co-design is an approach to problem-solving that starts from an analysis of user needs and involves users in jointly developing and testing solutions at multiple stages of the process.

What are policy labs?

According to a report commissioned for the EU policy lab (European Joint Research Centre, 2016, p. 1):

... policy labs are dedicated teams, structures, or entities focused on designing public policy through innovative methods that involve all stakeholders in the design process. Practitioners describe these efforts as design or evidence-based approaches, which places the end users at the centre of each stage of the policy-making process. After proposals are formulated, they are tested and validated through various forms of experimentation. In addition to co-creating and re-imagining policies and public programs, policy labs also undertake a wide range of activities such as preparing prospective studies, organizing creativity workshops, or instilling a sense of empowerment in civil servants through training and other learning activities.

According to Nesta (2005), there are over 100 public sector innovation labs (policy labs) worldwide, established at all levels of government, from municipalities to national ministries. A study commissioned by the EU policy lab mapped approximately 65 policy labs across Europe, with 20 of those in the UK (European Joint Research Centre, 2016, pp. 4–5). According to Nesta’s guidebook to innovation labs (Puttick, 2014, p. 6) what unites and differentiates policy labs ‘is that they are all adopting experimental methods to tackle both social and public issues’. Furthermore, the methods include ‘design, data or behavioural economics’. While the reports on policy labs have been informative in nature, there has been little research on public sector policy labs beyond descriptive—and at times normative—overviews. Policy labs have been largely described as versions of existing organizations: as hybrids of think-tanks, digital research and development labs, social enterprises, and charitable organizations (Tönurist, Kattel, & Lember, 2017). Thus, the nature, organizational structure and need for such units within the public sector are largely unexamined across a variety of social and economic contexts. For Vincent (2016), speaking at the European Commission Lab Connections Conference, ‘Let’s forget the McDonald’s vision for Labs. They are all different depending

on the local culture. There is no blueprint'. The following operational definition has been proposed for the purposes of this project: Policy labs are multi-disciplinary government teams developing public services and public policies using innovation methods to engage citizens and stakeholders at multiple stages of the development process (Whicher, 2017, p. 81).

What is the role of academic theory in government practice?

Adapting the taxonomy from Bryman and Bell (2003, p. 5), we might consider that academics and policy-makers are groups of knowledge workers placing different emphasis on theory and practice. Supported by elements of theory, policy-makers contribute to practice, whereas academics develop theory based on fragments of practice. Both activities, theory generation and practice implementation, are mutually reinforcing. While the practice of 'designing' has a long history stretching back before the industrial revolution, applying design methods to jointly developing public services and policies with citizens is a comparatively recent phenomenon. Indeed, design as a line of academic inquiry for generating theory-driven knowledge is even less developed, but one which is nevertheless rapidly expanding. Arguably, in the domain of policy labs, government practice is developing more quickly than academic theory can be consolidated. The first public sector innovation lab was started in Sitra, the Finnish Innovation Agency in 1967, followed by PS21 in Singapore in 1995, the Centre for Public Service Innovation in South Africa and the VINNOVA in Sweden in 2001, and the the Danish government's MindLab in 2002 (Puttick et al., 2014, p. 13). Since then there has been an exponential growth in policy labs from around five in 2002 to over 100 by the time of Nesta's fourth global labs conference—'Lab works'—in 2015 (Puttick et al., 2014; Nesta, 2015).

Despite the rapid uptake of co-design in policy labs, there is a lack of academic evidence on the impact on public services and public policies (Bason, 2014, p. 4; Junginger, 2014, p. 57). Due to the experimental nature of the activities and projects in policy labs, they tend to operate behind closed doors. In 2015, the Northern Ireland Innovation Lab commissioned an independent evaluation both of its governance and activities, the first publicly released evaluation of a policy lab in the UK (Whicher, 2017). In an attempt to share best practices with other labs, iLab made the results of the evaluation public. According to the iLab's director: 'We hope that the evaluation will provide impetus for other Labs to share good practices and lessons to create a community of practice from which we can all benefit' (Whicher, 2017).

Co-design for public service and public policy development is an emerging domain fraught with

conceptual and empirical challenges, but it offers real opportunities to enhance citizen involvement in the public service and public policy development process.

Case method

The iLab was established in April 2014 in the Public Sector Reform Division of the Department of Finance. After just over two years of activity, an evaluation of the lab's activities and governance was initiated. The 2016 invitation to tender for the research stated that iLab:

... was envisioned as a vehicle to develop solutions with an emphasis on reforming and modernizing public services, and with a focus on ensuring high quality, fit for purpose services which utilize modern technologies. The time has now been reached when it is appropriate to carry out an independent evaluation to assess the lab's effectiveness and to surface recommendations to help shape the operating model to address the challenges arising from the new Programme for Government, further decreases in budgets and Brexit.

As a result of submitting the highest-scoring proposal, one of the authors was commissioned to perform the evaluation. The evaluation was based on 30 interviews with lab staff, the wider NICS and key external stakeholders. Of the 30 interviews, 13 were conducted face-to-face with participants on 13 and 14 September 2015 at the Department of Finance in Belfast and 17 interviews were conducted by telephone between 31 August and 21 September. The semi-structured interviews lasted between 50 and 90 minutes. The interviews were recorded with permission, partially transcribed and coded thematically. There were nine interviews with iLab staff, two interviews with senior civil servants (director level), 14 interviews with 'project sponsors' within the wider NICS, and five with external stakeholders such as Belfast City Council and experts (see Table 1). Responsibility for participant selection and recruitment was managed by iLab. The interview questions for staff members and senior civil servants focused on iLab's activities and governance, including iLab's leadership, operating model, methods and capacity. The interview questions for the project sponsors (senior civil servants commissioning iLab to deliver projects) focused predominantly on the iLab project with additional questions on iLab's governance. The project sponsors were from six different departments, including the departments for

Table 1. Research participants.

Category of research participant	iLab staff	Senior civil servants	Project sponsors in NICS	External stakeholders	Total
Number of interviews	9	2	14	5	30

economy, finance, communities, agriculture, justice and health. In the two years, some departments commissioned more than one project, such as the departments for finance, health and communities.

Based on the interim findings, the head of iLab and director of the Department of Finance selected four projects to be developed into impact case studies—these were ‘Medicines optimization’ commissioned by the Department of Health; ‘Waste management’ commissioned by Department of Agriculture, Environment and Rural Affairs; ‘Benefits uptake’ commissioned by the Department for Communities; and ‘Dementia’ commissioned by the Department of Health. It should be noted that these projects were selected for a number of different reasons—either they were particularly successful or, as in the case of the ‘dementia’ project, the first phase of the project was unsuccessful and the second phase was successful for reasons outside the scope of the original project. Thus, this case offered potential learning opportunities for iLab. The other outcomes from the research included an analysis of the strengths and weaknesses of iLab’s governance, including leadership, operating model, methods and capacity, as well as a series of 17 recommendations for enhancing iLab’s impact and making the operating model more sustainable.

Findings

The outputs from the research included four impact case studies, an analysis of the strengths and weaknesses of iLab’s leadership, operating model, methods and capacity, as well as a series of recommendations for enhancing impact. From 2014 to 2016, iLab

led 18 projects focused on a range of service and policy challenges across different departments of the NICS, with a budget of approximately £540,000. At the outset, the main method adopted by the lab was co-design, but it gradually adopted other methods, including behavioural insights and systems dynamic modelling. Of the 18 projects, 15 applied co-design approaches, two used behavioural insights and one used system dynamics modelling (see Table 2). The four case studies focused on the medicines optimization, waste management, benefits uptake and dementia projects. The medicines optimization and waste management projects took a design approach, while the benefits uptake project applied behavioural insights and the dementia project was a two-phase project involving design and system dynamics modelling.

Although there were multiple factors at work, an investment of £60,000 in iLab’s medicines optimization project could result in cost savings of over £20 million per annum. The analysis of the strengths and weaknesses of iLab’s leadership, operating model, methods and capacity informed a series of 17 recommendations to capitalize on iLab’s expertise, achieve further impact and secure additional support from stakeholders. These ranged from short-term to long-term proposals, as well as low to high priority.

What are the main determinants of effective co-design?

Based on our insight from the 30 interviews, the main determinants of effective co-design are:

Table 2. Overview of iLab projects.

No.	Title	Method	Department of	Progressed to implementation as of September 2016	Cost*
1	Regulatory Impact Assessment (RIA)	Design	Economy	✓	£28,000
2	Banking services	Design	Finance	✓	£11,200
3	Procurement	Design	Finance		£28,000
4	Reward and recognition	Design	Employment and Learning		£28,000
5	Data analytics	Design	Finance	✓	£34,000
6	Realizing savings from procurement	Design	Finance		£8,600
7	Shared services	Design	Finance	✓	£34,000
8	Non-domestic rates	Design	Finance	✓	£34,000
9	Dementia 1	Design	Health		£85,000
10	NICS travel services	Design	Finance		£8,600
11	Benefit uptake	Behavioural insights	Communities	✓	£8,600
12	Voluntary sector funding	Design	Communities	✓	£34,000
13	Waste	Design	Agriculture, Environment and Rural Affairs	[Live]**	£60,000
14	Court fines	Behavioural insights	Justice	[Live]	£8,600
15	Rent arrears	Design	Communities	✓	£8,600
16	Dementia 2	System dynamics	Health	[Live]	£15,000
17	Medicine optimization	Design	Health	✓	£60,000
18	Debt services	Design	Finance	[Live]	£45,000
Total					£539,200

* Cost estimated based on staff time and external expertise.

** A live project at the time of the evaluation.

- Clarity of language and process.
- Selection criteria for projects.
- Building in evaluation.
- Promoting good practices.
- Senior management support.

Clarity of language and process

In the words of one civil servant: ‘stick a “co” on the front of a word and it generically means “jointly” so co-creation is jointly created and co-design is jointly designed’. However, according to the same individual: ‘Terms like co-production, co-creation and co-design can feel like buzzword bingo’ to government officials. For those immersed in the discipline, there are nuances between them, but for a generalist civil servant these nuances are not necessarily clear or directly relevant. Convincing them to take any of these approaches requires increased clarity on definitions, methods and processes. The focus was on three main innovation methods: co-design, behavioural insights and systems dynamic modelling. However, as previously asserted, co-design is a difficult concept for civil servants to grasp because it is intangible. Perhaps the best way to communicate the value of co-design is by experiencing a co-design process; more so with civil servants not being prepared to commission or participate in a co-design project without understanding the benefits of the approach and what it entails. At the time of the evaluation, iLab used a raft of design terminology interchangeably, including ‘co-design’, ‘service design’, ‘user-centred design’, ‘human-centred design’, ‘design thinking’. Even within the field of design there is a considerable amount of jargon (as stated by one interviewee) and subject-specific terms such as ‘ideation’, ‘double diamond’ and ‘personas’, among others. Although co-design is entering the lexicon of government, initially, a concerted effort should be made to streamline terminology and promote a smaller number of concepts. It might be advisable for a policy lab to review the scope of terminology and adopt a small number of terms as appropriate. One of the recommendations from the evaluation was to develop a glossary—a first iteration of which was proposed through the research. The iLab has subsequently adopted a glossary of terms for projects going forward.

Most civil servants are not familiar with the methods or processes used by innovation labs. iLab adopted the double diamond as a framework for its design processes. The double diamond (see Figure 2), attributed to the UK’s Design Council (2007, p. 9), is a four-stage process of divergent and convergent thinking: Discover, Define, Develop and Deliver.

This framework is commonly adopted by public sector innovation labs using design methods (for

example Drew, 2016). Essentially, the process involves discovering user needs, defining the challenge, developing and testing prototypes and delivering a solution validated by users. It is an approach that encompasses elements of top-down and bottom-up public governance. Not only are civil servants not familiar with co-design as an approach to problem-solving, they are also not familiar with what design methods and processes encompass. According to one interviewee, ‘I was not entirely sure from the outset what the project processes, milestones and outputs would be or how long a typical design project takes’. According to one member of the iLab, the team created the ‘design offer and structure for design projects iteratively’. At the beginning, the discover, define and develop phases were conducted as part of an intensive consecutive five-day workshop. However, this approach was adapted and improved based on feedback from project participants to a more strategic and longer term engagement. Based on the experiences of the interviewees, a ‘typical’ journey for a design project was developed (see Table 3) and visualized so that it could be communicated to potential iLab clients in other departments.

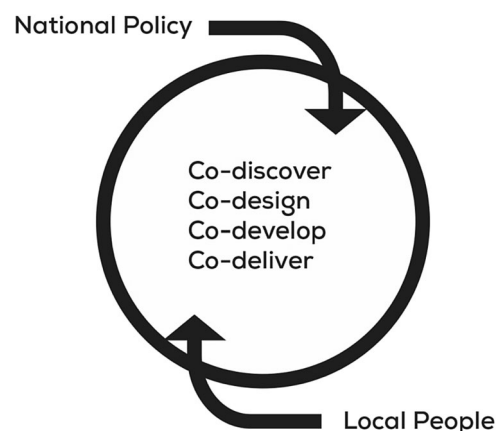


Figure 2. Double diamond adapted by Siodmok (2014).

Table 3. Project journey.

Project stage	Description	Timescale
Scoping	Scope the project topic with the department and sign a memorandum of understanding.	2 months
Discover	Gathering user insights through interviews, focus groups and/or observation.	2 months
Define	Defining the challenge through a two-day workshop with stakeholders.	2 days
Develop	Jointly create ideas with a broad user group, refine the concepts with a different user group and test low fidelity prototypes with users.	4 months
Deliver	Submit a business case to implement an integrated solution, upscale and implement.	3 years
Evaluate	Evaluate the process, outputs and outcomes.	1 month

Selection criteria for projects

The current project set-up (see [table 3](#)) involves a scoping phase with the main point of contact or sponsor, an elongated discovery phase involving user insights gathering, a two-day workshop to define the challenge and a subsequent two-day workshop to develop concepts. At this point the project is, according to iLab staff, 'passed back to the sponsor for implementation'. Of the 18 projects evaluated, nine had progressed to implementation (eight design projects and one behavioural insights project, with four projects, including one systems dynamic modelling still live). Although a 50% progression rate to implementation may not sound successful, in fact, in the context of labs applying experimental methods to challenging real-world problems, this should be considered highly successful. iLab's core ethos was to be a safe space to formulate and test ideas. Furthermore, according to one interviewee: 'knowing what not to do is as important as knowing what to do'; in essence, co-designing enables government teams to design out the risk at early stages. Based on the experiences of the interviewees, there are a number of preconditions for ensuring a co-design project progressing to implementation. The most significant preconditions were active engagement and participation in the projects by the sponsor. In the early days of iLab's activities, the sponsor was required to 'set the brief' and then might 'dip in and out of the various stages of the project'. However, this meant that the project sponsors did not experience a co-design process and therefore appreciate how it is 'different from business as usual'. Based on the evaluation, it was clear that iLab needed to develop a set of selection criteria for co-design projects with an emphasis on implementation where appropriate. At the outset, greater emphasis was placed on the discover, define and develop stages of the double diamond and not on the deliver phase because this was considered 'beyond the mandate of iLab'. Co-design is effective for gathering user insight, generating ideas with users, selecting options with users, testing concepts with users and refining concepts with users. According to one member of iLab's team: 'where design falls down is that a great deal of energy is invested into the early parts of the process but insufficient resources are allocated to see them through to implementation'. If a sponsor was not actively participating in workshops and insights gathering, that project was less likely to progress to implementation. For one research participant, 'it all hinges on the sponsor being part of the project journey'. Some examples of selection criteria for co-design projects was developed as part of the evaluation, including ensuring that the sponsor has the necessary personal commitment and authority to

implement outcomes and ensuring that the sponsor has resources (financial or otherwise) for prototyping, testing and upscaling.

Building in evaluation

Closely linked to implementation is evaluation. First, it should be acknowledged that there is a significant lack of research on evaluating the impact of co-design in public service and particularly public policy development (Bason, 2014, p. 3; Christiansen & Bunt, 2014, p. 47; Junginger, 2014, p. 57). By commissioning the evaluation of both the activities and the governance of iLab, the Department of Finance was, according to one interviewee, 'making a bold move'. It was not possible to perform an empirical evaluation of iLab's projects within the scope of the research at the time because baseline data had not been collected from the projects. Evaluation should be built into the process from the outset. The evaluation should not be purely quantitative because testimonials and impact case studies can be very valuable. However, as part of the problem definition phase, resources should be allocated to identifying metrics against which an ex-post evaluation can be performed, as well as ongoing benchmarking and monitoring. Identifying what success looks like is a fundamental part of shaping a co-design project and will ensure that the outcomes 'meet sponsors' expectations'. It is important for a project to be translated into a case study, even if it did not progress to implementation and was not necessarily 'classed as successful because there are learning opportunities from failure' as observed by one interviewee. It should also be part of the evaluation process for iLab staff to reflect on the lessons from each project identifying what could be improved in order to continuously improve and iterate iLab's offer and operations. A number of the co-design projects were also policy-related. The lead time for implementation in a policy cycle can be over a year, which adds a further dimension of complexity for evaluation. It is important to evaluate output and outcomes. For Bentley (2014, p. 15), this traditional policy cycle 'is deeply embedded in the cultures of legislatures and bureaucracies around the world, is one of the main reasons why policy processes are primarily focused on the production of documents, rather than the production of outcomes'. Evaluating the impact of co-design in a policy context is not well understood in current research. What can co-design offer the policy process and how can we evaluate the impact and outcomes?

Promoting good practices

In turn, the issues of evaluation and promotion are mutually reinforcing. Part of the process of securing

additional support and interest is to publish results and communicate to the wider civil service. There is a clear need to build legitimacy for and awareness of iLab in the wider NICS. The purpose of the projects, evaluation, case studies and testimonials should be to create a community of champions and advocates for the approach. According to one senior civil servant: 'the lab can move beyond the traditional skills set of the civil service'. iLab should develop a formalized approach to knowledge exchange to build capacity for innovation methods such as co-design within the NICS. At present, iLab does not have a target to engage a certain number of civil servants. It is important for iLab not to be subject to the same key performance indicators allocated to other government processes as too stringent targets will 'strangle the blue-sky thinking that is the lab's main asset'. However, it should be seeking to engage with all government departments, as well as other stakeholders such as local councils, to disseminate the methods and good practices. Developing a formalized approach to knowledge exchange on co-design among the wider NICS should be complemented by communication and awareness-raising activities. For one project sponsor: 'No one knew about the innovation lab. I was the first person in our directorate to get involved. I was approached directly by the head of the lab'. Promotion and marketing are important to create an appetite in other departments to work with iLab.

Senior management support

Co-design is an experimental innovation method that lacks legitimacy in government. Policy labs are not immune to the ebbs and flows of the political tides or changing policy focus. Furthermore, Northern Ireland also has a unique political context within the UK. For example, between April 2014 and October 2016, the country had four ministers of finance due to changes in portfolios and priorities; and devolved government has been on hold in Northern Ireland since the collapse of the Northern Ireland Assembly in January 2017, with the increasing threat of direct rule from Westminster. As such, a determinant of success for co-design projects is organizational stability, in this context, within iLab. The lab should be protected, championed and valued by the various hierarchical layers of the civil service. This involves capturing success, promoting iLab, disseminating good practices, building capacity for the methods among the wider civil service and securing the support of senior decision-makers. The lab has been given a relatively high degree of autonomy to experiment and service other departments, albeit by seeking the input of the senior civil service. It is testimony to the iLab's success that it has been able to embark on such a diverse and ambitious portfolio of projects

and gained endorsement from a range of departments. iLab is currently entirely dependent on the department of finance as its sponsor; should the department withdraw its support then iLab might be 'spun out of government like other innovation teams elsewhere'. By consolidating iLab's offer and unique selling points, its leadership team could engage with permanent secretaries across other departments to enhance its income base and spread the risk. Eventually, the lab could move more towards a new hybrid funding model, which combined sponsorship and collaborative funding. Securing the support of the senior civil service, including permanent secretaries, could shelter the lab from the 'ongoing political storm'.

What are the unintended consequences of co-design?

In iLab's case, there were two reoccurring unintended consequences of co-design: raising stakeholder expectations and a lack of prototyping. The lab was already aware of the latter because it is a central co-design attribute, but the former emerged as part of the evaluation. Many research participants (particularly sponsors and external stakeholders) commended the energy and motivation generated during the workshops, which in two projects gave way to disillusion when recommendations were not followed through. This was highlighted in one health project by an external stakeholder: 'I feel we've let the stakeholder groups down as we've raised expectations and we haven't followed through to implementation due to politics and professional boundaries'. This is a common 'fallout' of co-design projects. The discover, define and develop stages of the process galvanize and inspire people but, if stakeholders are not provided with sufficient parameters, they will generate ideas that are not bounded in reality. For one sponsor: 'The lab has real value and I think it would be a shame to abandon it because it does not work every time. Nothing does'. Shifting iLab's emphasis to implementation will most likely entail a further up-skilling step for staff to ensure that they are equipped with the knowledge to prototype services and prototype policies. Through prototyping, testing and iteration, iLab is more likely to progress projects to upscale and implement solutions. Again, the role of the project sponsor is vital, enabling a senior civil servant to participate in prototyping a service or policy will enable iLab to design out risk and secure support. For one sponsor not involved in prototyping 'when the recommendations were presented back to me I found it difficult to identify the thought process behind the concepts. I didn't feel I got the benefit of the whole process'. For a different project sponsor:

I now think that the model can work very well with the right challenge, with the right participants, with the

right buy-in, and with a very big ‘but’. The ‘but’ is prototyping and implementation. They have to be built into lab projects.

It should be acknowledged that the approaches used by iLab are experimental and rarely employed by the NICS and that iLab has progressed through a learning curve. As such, the team is cognisant of these unintended consequences and ‘managing stakeholder expectations has primacy’. Furthermore, by developing selection criteria for projects and ensuring that sponsors commit to prototyping and implementation where appropriate some of the risks of raising stakeholder expectations will be mitigated. It is important for any lab to develop a clear operating model and identify its unique selling points when bringing new clients on board.

Discussion

Northern Ireland’s iLab highlights certain lessons for other policy labs. With the emergence—and expansion—of policy labs across the world, further detailed independent evaluation of their operations, activities, funding and governance models can provide deeper insight into their success or failure, as well as their policy traction and embeddedness into the wider public sector. The success of the iLab could stimulate the creation of a network of policy labs across the UK, potentially stimulating collaborative activities, knowledge exchange and project funding, especially in the context of citizen-centered smart city design (Tryfonas & Crick, 2018). In particular, this could be an attractive and tractable model between the devolved nations in the UK, providing a structure and framework for collaboration between Scotland, Wales and Northern Ireland on key public service innovation priorities, perhaps exploiting the devolved city deal and regional growth deal mechanism (UK Government, 2019). From a Welsh context, where the concept of public service innovation labs is beginning to take hold, there are valuable legislative levers such as the Well-being of Future Generations (Wales) Act (Welsh Government, 2015), in which is embedded the importance of sustainable development and which places a legal responsibility of certain named public bodies to improve the economic, social, environmental and cultural well-being of Wales through five ways of working to achieve seven well-being goals. The outcomes from the iLab evaluation can provide valuable insight into translating and transferring success into new domain-specific contexts, especially via sponsor engagement and through case studies and examples of successful interventions.

In 2016, the Northern Ireland government also commissioned the Organisation for Economic Co-operation and Development (OECD) to review public sector reform in Northern Ireland, involving more than 300 research participants and resulting in 30 recommendations.

One recommendation specifically related to iLab. It stated that iLab is an ‘impressive example of how the government is nurturing innovation in the public sector’ and that there was a need to ‘develop its full potential through departmental ownership, skills development, active user and sponsor-department participation in lab sessions and impact measurement’ (OECD, 2016, p. 43). That, in two years, half of the 18 projects which iLab has led have progressed to implementation should be considered a high success rate. Its use of relevant design processes, especially in articulating how they can be used by sponsors and key stakeholders as adaptable problem-solving and risk reduction strategies in a range of real-world contexts, has been valuable to explore and test the usability, desirability and viability of concepts, looking at both quantitative and qualitative impact. In particular, building tolerance and acceptance from policy lab customers that the ability to stop a project before potentially costly political and financial implementation is a significant positive step forward. It has been over a year since the evaluation was performed and PDR continues to work with iLab and ideally a review of the evaluation would take place to see what proportion of the recommendations have been implemented.

Perspective and future work

The shift from user-as-subject to user-as-partner has fundamentally altered the role of the citizen from passive consumers of public services and public policies to active collaborators in their formulation. This is a step change from transactional to collaborative public governance. While there is currency and a significant policy focus on these popular ‘co’-processes—with varying levels of engagement, embedding and application—this shift should be further encouraged and promoted as a wider democratic engagement process at all levels: from local and regional to national. iLab has the opportunity to position itself as a ‘bastion of innovation’ within the NICS for incubating ideas and engaging citizens and stakeholders at multiple stages of the service and policy development process. In a very tangible way, it is visibly contributing to the ambitions of the Programme for Government, the overarching policy directive for Northern Ireland. This tangible policy delivery contribution is key for translating the potential and ambitions for a policy lab in other environments.

Evidencing the effectiveness of the various financial and governance models is also important for adoption in other policy domains and environments, particularly in the wider context of effective public value co-creation for public service organizations (Meynhardt, 2009; Osborne, 2018). From a governance perspective, an arm’s-length approach is important to provide the freedom and openness in which to operate. While

there are challenges associated with being regarded as a 'special entity', receiving different treatment and privileges in a political and/or policy-making context, this freedom is crucial during the bootstrapping phase of a lab. Finally, a developing imperative for openness and transparency, especially in the context of open government, governance and democracy, provides a valuable lever for how policy labs can and should operate from their inception and initial implementation. Co-design is a transforming the nature of public governance from transactions with the 'citizen as user' to collaboration with the 'citizen as partner'.

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