

The entrepreneurial (welfare) state?

Tackling social issues through challenge prizes

Ville Takala

Senior Research Fellow
UCL Institute for Innovation and Public Purpose

Emma Nordbäck

Assistant Professor
Hanken School of Economics, Finland

Tuukka Toivonen

Honorary Senior Lecturer, UCL Department of Science, Technology, Engineering and Public Policy
Course Leader, Central Saint Martins, University of the Arts London



**UCL Institute for
Innovation and
Public Purpose**

WORKING PAPER
WP 2020-02

About the Institute for Innovation and Public Purpose

The UCL Institute for Innovation and Public Purpose (IIPP) aims to develop a new framework for creating, nurturing and evaluating public value in order to achieve economic growth that is more innovation-led, inclusive and sustainable.

We intend this framework to inform the debate about the direction of economic growth and the use of mission-oriented policies to confront social and technological problems. Our work will feed into innovation and industrial policy, financial reform, institutional change, and sustainable development.

A key pillar of IIPP's research is its understanding of markets as outcomes of the interactions between different actors. In this context, public policy should not be seen as simply fixing market failures but also as actively shaping and co-creating markets. Re-focusing and designing public organisations around mission-led, public purpose aims will help tackle the grand challenges facing the 21st century.

IIPP is housed in The Bartlett, a leading global Faculty of the Built Environment at University College London (UCL), with its radical thinking about space, design and sustainability.

This report can be referenced as follows:

Takala, V., Nordbäck, E. and Toivonen, T. (2020). *The entrepreneurial (welfare) state? Tackling social issues through challenge prizes*. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2020-02). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2020-02>

The entrepreneurial (welfare) state?

Tackling social issues through challenge prizes

Ville Takala, Emma Nordbäck and Tuukka Toivonen

Abstract

Much of the debate surrounding mission-oriented innovation and associated policy instruments has hitherto remained more conceptual rather than empirical. Thus, in this paper we examine one relevant policy instrument – the challenge prize – through an empirical lens. Based on a longitudinal qualitative study of the challenge prize “Solution 100”, organised by the Finnish Innovation Fund, Sitra, in 2016-2017, we examine whether challenge prizes can effectively foster the dynamic capabilities needed, both within the private and the public sector, for states to become entrepreneurial. Specifically, we focus on the question of how participants with different professional backgrounds – holding contrasting cognitive models in relation to social problems and innovation – engage with the particular logic of a challenge prize. Our findings indicate that although prizes can indeed provide the aforementioned function, future prize organisers must reflect deeply on the types of cultures and mentalities they wish to promote through the design of their prizes. Far from being simple tools to spur innovations, prizes in fact involve complex issues of prize governance, greatly influencing their outcomes. The broader aim of our paper is to situate mission-oriented innovation and challenge prizes within ongoing debates about welfare state reform.

Keywords: Mission-oriented innovation, dynamic capabilities, challenge prizes, welfare state, social innovation

JEL codes: i30, L30, L31, O10, O30, O31, O32, O35

Acknowledgements: The study is based on data collected as part of a project funded by Sitra. Part of the research leading up to the paper was supported by the EU Horizon 2020 project Growinpro. The authors would like to thank colleagues at UCL IIPP, Sitra and the Ministry of Economic Affairs and Employment of Finland for valuable comments on earlier versions of the paper.

1. Introduction

The welfare state, arguably one of the greatest social innovations of all time, is coming under increasing critique. Indeed, it is now far from unusual to hear arguments that welfare state structures, put in place originally to tackle social ills created by industrial capitalism, are no longer fit for purpose. Echoing an increasingly popular sentiment, Cottam (2018: 14) for example argues that “The welfare state is out of step with modern troubles, modern lives and much of modern public opinion. A set of institutions and services designed for a different era is now threadbare and beyond repair.” She argues that rather than trying to fix a broken system, we should experiment with new ways of working where the focus shifts from managing people’s needs to supporting them in growing their own capabilities. The industrial welfare state must, in other words, be updated for the post-industrial era.

Encouragingly to some, governments across the world have started to express similar views. One policy framework that has gained increasing traction recently is mission-oriented innovation, whose proponents (Kattel and Mazzucato, 2018; Mazzucato, 2017) argue that the role of governments should not be limited to fixing market failures, but instead, they should actively seek to steer the direction of innovation toward desired goals via investment and other policy actions. A crucial enabling factor in this endeavour are so called dynamic capabilities in public sector organisations: their ability to show leadership through bold vision, their ability to find a coherent mixture of policy instruments and their ability to tap into a diverse set of expertise and skills. While the previously hegemonic “market failure” framework derived from neoclassical economics focused on mitigating the role of the state, new capabilities and tools are needed to tackle the “wicked” problems faced by modern capitalist societies (Kattel et al., 2018). Simply put, entrepreneurial societies need entrepreneurial states.

One example of a policy tool through which governments are trying to steer the direction of innovation are challenge prizes. After falling out of favour for centuries (Williams, 2012), policy makers across the world are again looking at prizes in the hope that they can be used, amongst other things, as an effective means to incentivise actors beyond traditional policy fields to develop solutions to societal issues (Nesta, 2014). Despite an extensive grey literature on the benefits and shortcomings of such prizes, empirical research concerning their effectiveness is still largely missing (however, see Murray et al., 2012). The current paper addresses our gap in knowledge by examining one such challenge prize, “Solution 100”, organised by the Finnish Innovation Fund, Sitra, in 2016-2017, in action. By focusing on the teams that participated in the contest, and their interaction with the competition, the paper provides an empirical account of the practical dimensions of mission-oriented innovation. Situated in Finland, a country long considered a stronghold of the Nordic Welfare State model, the study serves as a practical example of one framework through which states that have traditionally been deemed innovative are currently trying to reimagine what welfare state governance could look like in the future. The paper thereby seeks to contribute towards bridging the gap that currently exists between debates on social innovation and social welfare reform (Sabato et al., 2017: 148).

The paper is structured as follows. We begin by situating mission-oriented innovation policy (MOIP) in ongoing debates about welfare state governance. Following Garland (2014, 2016), we define the welfare state as a specific mode of governing that deploys a specific set of social and economic techniques and particular forms of administration. We suggest that the MOIP framework, including its focus on dynamic capabilities in the public sector, can be read in parallel with and as a response to recent critiques of the welfare state. Next, we introduce Solution 100 and offer an account of the organiser's motivations, aims and broader vision for the challenge prize. After briefly describing our data and method of analysis, we move to our main empirical component, which focuses on the incubation phase of the challenge prize, and more precisely, on the different ways in which teams with different professional backgrounds engaged with the competition. Our major empirical finding is that challenge prizes impact participating private and public sector teams very differently, raising important questions about the design of the prize, particularly its evaluative criteria. From setting the challenge, to choosing mentors and judges, competition organisers are faced with a series of normative choices that influence what types of initiatives and capabilities will be set into motion by the competition. Simply put, the way you design a prize has implications for the solutions you get. We conclude the paper by briefly examining some of the dynamics that emerged when the social innovations produced during the challenge prize met existing governance structures. The occasionally major resistance encountered by the teams at this point raise crucial questions about the future role of innovation agencies, such as Sitra, in the context of mission-oriented innovation. Following Garland (2016), by its very definition, any changes to the welfare state mean, in effect, a reshuffling of institutional power relations, making major transformation a very difficult undertaking.

2. Context: Re-imagining a state of welfare?

Particularly in the Nordic countries, the welfare state is a central part of national identity that most people tend to have an opinion of. Those on the left regularly express fears that the welfare state is currently in the process of being dismantled, whereas those on the right often view it as a barrier to unleashing the personal enterprise that capitalist economies are seen to be dependent on (see for example, Danielsbacka and Kujala, 2015; Ehrnrooth, 2015). People on all sides of the political spectrum increasingly seem to agree, however, that the welfare state is in need of drastic reform. Many would now agree with Cottam's (2018) assertion that more money will not fix the welfare state, but instead, it must be reinvented from the bottom up.

But what, in fact, is the welfare state? Does the welfare state equal publicly funded health care and education, or is it something more profound? Most people, whilst having a strong opinion of the welfare state, tend to struggle when being asked to define it. An extensive tradition of scholarship maps out the history, characteristics, different variations and contemporary challenges to the welfare state (See for example Briggs, 1961; Esping-Andersen, 1990; Gough and Therborn, 2010; Mjøset, 2016; Pierson, 1998; Rothstein, 1998; Therborn and Roebroek, 1986). What the classical authors of the welfare state have in common is the idea that rather than an alternative to capitalist economies, the welfare state should in fact be understood as a fundamental aspect of modern capitalist governance.

Reviewing the vast literature on the topic, Garland (2014, 2016) provides a particularly useful sociological synthesis of what the welfare state is. According to Garland (2016: 4) no actually existing state, "is" a welfare state. Instead, when properly used, the concept "only ever refers to a specific form of governing and a specific sector of governmental activity". In effect, the welfare state is a historically formed "mode of exercising government power and a specific set of conceptions, institutions, and techniques with which to do so" (Garland, 2016: 6) at the core of which are the institutions "that insure against loss of earnings by reason of unemployment, ill-health, old-age, disability, and so on." (Garland, 2016: 8). Instead of a thing of the past, the welfare state is a "fundamental aspect of modern government – universally present in all advanced societies in one form or another" (Garland, 2016: 3) functioning as a "retrofitted set of gears, brakes and distributors, designed to steer the capitalist juggernaut along a more socially acceptable course" (Garland, 2016: 39). Garland (2016: 54) explains that the most profound discontinuity marking the welfare state's appearance in the aftermath of the two world wars was not new practices or institutions per se, but a fundamental change in the underlying rationality of government:

'What marked the welfare state off from its predecessors was an altered conception of the nature and purpose of governing and of the character of the objects — above all the economy and the population — to which government action was addressed. Welfare state government was distinguished by a new style of thinking about, and acting upon, the problems of unemployment, insecurity and uncertainty: an approach that — together with new technologies of social insurance, social provision and economic regulation — affected the whole economy and population, and proceeded on quite new principles.'

For example, whereas previously the general view had long been that the economy was a zero sum game, where public spending was automatically a drag on the productive economy, from the early 20th century onward unemployment started being seen not simply as a personal problem, but rather a structural issue that could be effectively tackled with government spending (Garland, 2016: 54). Garland (2016: 56) explains that the welfare state “socialized processes of control and of provision, organized them on a national scale, and made them public responsibilities” and was thus made possible by “a new form of macroeconomic and macrosociological governance [...] a ‘statification’ and systematization of governing practices that were previously local, private, and piecemeal.” It professionalised and routinised interventions that were previously left to volunteers and amateurs. At the start of the 20th century there was thus a “marked shift in thinking about government’s capacity to manage the economy and the benefits of so doing.” (Garland, 2014: 336).

Following Garland, therefore, the welfare state can be thought of as a distinctive “governmentality” (Foucault, 2007), that is to say mentality or rationality of governing. Importantly, it is a rationality which acknowledges that left to its own accord, the capitalist economy produces social circumstances which are unbearable to most members of society, and that the state must therefore play a role in regulating both social and economic life. A century after its formation, this interpretation of the role and function of government continues to assert a massive influence on societies particularly in the west. More recently, after a period of hegemony of perspectives drawn from neoclassical economics, which focused on limiting the role of the state, a new consensus has started to emerge around the idea that relationship between the state and the economy must urgently be rethought yet again (Kattel, 2018; Kattel et al., 2018).

Indeed, especially since the latest financial crisis, many have expressed deep concerns about how the state has been conducting its aforementioned responsibility. As has already been mentioned previously, one framework that has gained increasing traction recently is what has come to be known as mission-oriented innovation. Drawing on an extensive reading of economic history, Mazzucato (2013, 2017, 2018) argues that economic growth not only has a rate, but also a direction, one that governments can and must actively seek to influence. This can be achieved, Mazzucato (2017: 2) suggests by “identifying and articulating new missions that can galvanise production, distribution and consumption patterns across various sectors” and by making these the core pillars of government industrial strategies. In effect, Mazzucato explores the idea that just as President Kennedy in the sixties called for an ambitious program to put a man on the moon, a mission that quickly attracted both public and private investments, and which “spill over effects” include many of the technologies that we rely on today, modern states must take an active role in steering the economy towards socially desirable goals with clearly stated missions. What this requires is a re-conceptualisation of the role of the public sector, whereby public sector organisations, just like private companies, are allowed to acquire and foster “dynamic” capabilities, or to put it plainly, to experiment, fail, and to learn from failure. Mazzucato (2017: 15) repeatedly underscores the potentially crucial role of innovation agencies, such as Sitra, in driving mission-oriented innovation, and mentions prizes as one potentially effective funding instrument, amongst many others, in encouraging multiple solutions to missions (Mazzucato, 2017: 17–18).

In general, much of the aforementioned debate surrounding mission-oriented innovation and associated policy instruments has remained more conceptual rather than empirical. For example, despite an extensive grey literature on the benefits and shortcomings of such prizes (see for example, Patel, 2013; Starr, 2013; Youn, 2013), empirical research concerning their effectiveness is still largely missing (however, see Foray et al., 2012). In order to begin to address this gap, in this paper we mobilise the concept of institutional logic (Thornton and Ocasio, 1999), to explore a notable public sector-driven challenge prize. Kattel and Mazzucato (2018: 5) explain that whereas the past half a century has seen the emergence of a genuine tradition of analysing dynamic capabilities in businesses, nothing quite similar exists for the public sector. Thus, in this paper we focus our attention particularly on the teams that participated in the competition. By doing so, we examine whether challenge prizes can function as an effective means to foster the dynamic capabilities needed, both within the private and the public sector, to deliver mission-oriented policies. Specifically, we focus on the question of how teams with different professional backgrounds – holding contrasting cognitive models in relation to social problems and innovation – engage with the particular logic of a challenge prize. As Mazzucato (2017) explains, successful national systems of innovation are ones where different sectors of society work effectively together to produce innovations. While challenge prizes often explicitly aim to stimulate such cross-section innovation, our findings indicate that their design can pose severe obstacles to making this goal a reality. Given especially the recent resurgence of government interest in prizes, it is imperative to move beyond conceptual debates to unpacking their dynamics in practice (Kay, 2012). Are challenge prizes an effective way to set shared missions, and to steer innovation activity across sectors towards achieving them? Can prizes function as an effective means to foster the dynamic capabilities needed within organisations for (welfare) states to become entrepreneurial? What, in more general terms, do the micro-politics of mission-oriented innovation consist of? Before examining the competition dynamics in detail, we begin our empirical investigation by introducing Solution 100, by situating it within the context of increasing calls for an experimental culture in government, and by unpacking the institutional logics encapsulated by it.

3. The challenge prize Solution 100

3.1 Introducing Solution 100

Challenge prizes have a long history as government tools to spur innovation. Notable early prizes include the Longitude Prize (launched to encourage the invention of new methods to calculate longitude at sea for the benefit of British navy and merchant operations, awarded in 1765), the Academy of Besancon's Prize for Substitute Foods (awarded in 1773, making the potato into a popular human foodstuff in Europe) and the French Society for the Encouragement of Industry Prize (awarded in 1826 and spawning the commercial hydraulic turbine) (Nesta, 2014). After falling out of favor for centuries, government interest in prizes began to re-emerge in mid-2000s, sparked by the success of prizes such as the Ansari X PRIZE that pledged \$10 million to the first group to launch a private manned and reusable space vehicle into space twice in two weeks (Kay, 2012). Subsequently, the Obama administration sought to advance the application of prizes as a key innovation tool across all policy areas, including medicine and energy (Nesta, 2014: 8). At this point, challenge prizes began to gather popularity internationally, with the UK emerging as a forerunner in Europe.

Influenced by the aforementioned developments, the Finnish Innovation Fund, Sitra, decided to organise the challenge prize Solution 100 in 2017 in celebration of Finland's centennial. Sitra, which was established in 1967 by the Parliament to mark Finland's 50th anniversary, is "commissioned with the task of probing the future and promoting qualitative and quantitative economic growth." (Sitra, 2019). Whereas initially Sitra functioned more clearly as an investment fund, in recent years it has taken on the role of a think-tank type thought leader. The relative weighting of these two functions has been an ongoing debate within Sitra, and the size, and usage, of its endowment (771 million in 2017) has generated some public scrutiny in Finland in recent years. According to its most recent vision statement (Sitra, 2019), Sitra aims at:

'Creating preconditions for reform, spurring everyone towards making a change and providing opportunities for co-operation. What this means in practice is that Sitra investigates, explores and develops operating models in close co-operation with other responsible operators to support public administration.'

Solution 100 can be viewed as one attempt to put Sitra's organisational vision into practice. Furthermore, it can be understood as part of a larger initiative by the previous Finnish Government (2015-2019) to embrace experimental methods and mindsets in government (Experimental Finland, 2019). Some have viewed Finland as a forerunner in introducing experimental cultures and mindsets into government.

Explaining their motivation for the competition, the organising team of Solution 100 highlighted Sitra's broader goal to supplement their thought leadership role in Finland by becoming more adept and effective in facilitating hands on experiments. Inspired by Mazzucato's (2017) (who serves as a member on Sitra's advisory board) writings on mission-oriented innovation, amongst others, a crucial part of Sitra's organisational vision is to establish itself as a facilitator of cross-sectoral partnerships and initiator of new initiatives. Within this context, challenge prizes were perceived as a potentially useful format. The organising team explained:

'We've been confronted with the question of how we could transform parts of our processes so that they would include more of the practical search for new solutions and innovations, beyond our role as thought leaders. After that we came across Nesta's Longitude Prize, which is probably the most crucial benchmark, from which we began to explore the world of challenge prizes in more depth.'

After having recognised the potentially good fit between a challenge prize and Sitra's broader organisational agenda, the question of legitimacy quickly became a key concern. Thereafter, crowdsourcing was agreed as a method to build legitimacy around what was an unusually high financial investment on the part of Sitra (the final prize itself was 1 million euros). Having agreed upon crowdsourcing as a method for defining the challenge for Solution 100, the challenge prize progressed through three phases over a two-year period. First, at the start of 2016 members of the general public were asked through an open online vote what they perceived as the most important social challenge affecting Finland's future, after which the following challenge formulation was agreed upon:

'Skills to a more effective use. To develop a solution that allows for the more effective identification and utilisation of expertise and capabilities in a world where people and information move increasingly across national boundaries.'
(Sitra, 2018)

Mazzucato (2017: 10–11) notes that the question of who gets to set missions is a key concern that requires more thought and that ideally, missions should be both concrete and broad enough to allow bottom-up experimentation, discovery and learning. In the case of Solution 100, mobilising the crowdsourcing method to assist in setting the challenge was far from a straightforward task, consisting of numerous interactions with an expert panel and significant amount of editorial work.

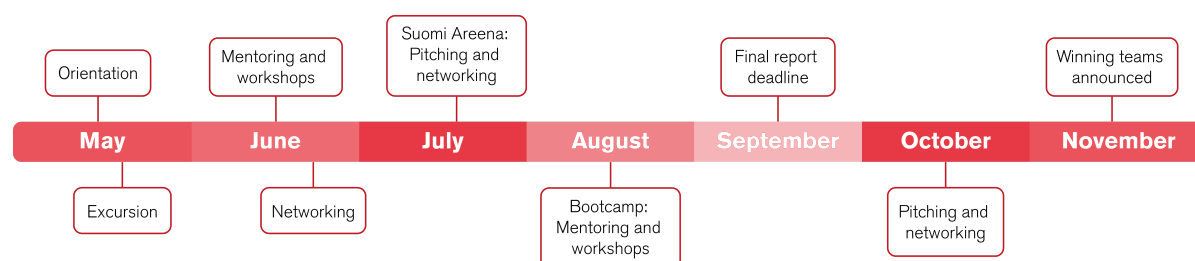
After having established the challenge formulation, the organising team set four official goals for the competition. Their first goal was to help find solutions to the defined challenge by supporting teams during and immediately after the competition. Secondly, the organising team wanted to raise public awareness and debate in Finland around the challenge. Third, the organising team wanted to use the competition format to promote Sitra's visibility and fourth, to use it as an opportunity to test the tool and thereafter advise other public bodies regarding its usefulness. In addition to the official goals, the organisers wanted to test the competition format's effectiveness in mobilising a wider variety of actors into solving social issues. The organisers also consciously prioritised different goals during different parts of the competition. Whereas in the beginning phase their focus was more on generating public debate around the competition and the challenge, later on their focus shifted towards helping teams to network with public and private partners, thereby promoting, in their words, "the creation of a social innovation ecosystem in Finland".

In the next stage, Sitra launched a public call in late 2016 for teams with diverse backgrounds to develop solutions to the challenge. The call was open for anyone to submit their proposal, but the requirement was that the team had a preliminary solution idea in mind, and that at least three

members of the team could commit to actively participating in workshops and excursions. In total, 231 teams applied, out of which 15 teams were selected for the final competition phase. The participating teams came from diverse sectors and backgrounds. In sum, the 15 participating teams comprised 75 team members, with an average of 5 team members per team. There were 33 female and 42 male participants, with an average age of 43. In line with the challenge definition, the teams generated solutions that would enable more effective identification and utilisation of expertise and capabilities. The solutions covered a broad spectrum of applications ranging from educational to organizational applications. In broad terms, the educational solutions offered solutions for improving current educational practices, strengthening the diversity of knowledge in society, as well as improving individuals' hiring opportunities, while the organisational solutions were aimed at improving the way work is organized and improving individuals' hiring opportunities. Commonly, these two were intertwined or further included broader cultural targets, such as generating larger cultural shifts in society which would strengthen the utilisation of expertise and capabilities in Finland.

The final competition phase of Solution 100 consisted of a six-month incubation period, during which the 15 teams received various forms of support, such as mentoring and workshop sessions, excursions, boot camps, opportunities to pitch and present their ideas, while competing to develop the most promising practical social innovation. In addition, the teams received financial support, including 8000 euros for the development of their social innovations, as well as additional travel funding for arranged events including an excursion to learn from social innovators in Amsterdam. The aim of the arranged activities was to provide the teams with new perspectives, coaching from experts and development support, each designed to fit the unique needs and stages of the teams' ideas. Finally, the teams also received homework, such as conducting pilots with real users during the competition in order to expose their ideas to actual users to reveal areas in need of further development. Figure 1 highlights the various activities and timeline of the six-month incubation period. Our research focused on this incubation period, where we followed the teams closely from the start to the end of the competition (and beyond).

Figure 1. Activities and timeline of Solution 100 (Sitra, 2018)



3.2 Unpacking the institutional logics of Solution 100

Critical commentators have suggested that the social innovation discourse, that challenge prizes are part of, too often focuses on identifying and promoting solutions that are practical within the framework of the current economic order, rather than on understanding the structural issues and conflicts that inevitably lie beneath the current social problems in need of addressing (Fougère et al., 2017). Others fear that with its emphasis on economic growth and job creation, the social innovation agenda is being used as a tool to reinforce a dynamic of welfare state reform in the direction of retrenchment (Sabato et al., 2017).

An alternative way to approach Solution 100, is to view it as part of a national system of innovation, where different systems and logics must work together to produce innovations (Mazzucato, 2017). Within such a framework, Solution 100 can be viewed as an intra-institutional system built around competing institutional logics (Friedland and Alford, 1991). In brief, institutional logics entail different expectations for social relations and organisational behaviour (Friedland and Alford, 1991; Thornton and Ocasio, 1999). More specifically, institutional logics can be understood as “the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality.” (Thornton and Ocasio, 1999: 804). According to Thornton (2004) societies are built around six distinct institutional logics: market, corporation, profession, family, religion and state. Each sector incorporates a different logic, with a series of taken-for-granted rules that are either structural, normative, or symbolic (Thornton and Ocasio, 1999).

Examined through the framework of institutional logics, it can be argued that multiple institutional logics came together and collided in Solution 100. First, the participating teams came from different sectors, which was likely to result in different motivations and behavior during the competition. Second, the competition’s aim to produce social innovations, by definition includes multiple logics. For instance, while the main goal of Solution 100 was to address a societal problem, it sought to do so by simultaneously producing financially sustainable solutions and economic opportunities. These competing logics were present both in the structure of the incubation support provided by Sitra and in the three evaluative criteria used by the competition jury to judge the social innovations put forward by the teams, which consisted of societal impact, innovativeness and implementability defined as “financial sustainability in the long term” (Sitra, 2018). When asked about their understanding of social innovation, the organising team noted the following:

‘Our definition has certainly evolved during the competition. In very simple terms, a social innovation is something that is beneficial for both the individual and society as a whole. Increasingly, however, I emphasise that social innovations need to take into consideration the externalities that they produce. They must consider, and be able to effectively communicate what their impact is on both the individual and society more broadly conceived, for example in terms of cost savings.’

When asked to specify how social innovations differed from purely market based innovations, the organising team explained that:

'Rather than who created it, the question must be who it creates value for. So, if an app developed in the private sector effectively tackles food waste, then in my opinion it creates public value instead of just value for the shareholder. Furthermore, I think it's important not to differentiate too strictly between technological solutions and broader social programs, such as the famous maternity package in Finland. All innovations seek to solve a problem, and they can be defined by what type of a problem they are seeking to solve.'

Reflecting on the competition criteria further through the framework of institutional logics (Saz-Carranza and Longo, 2012; Thornton, 2004), we suggest that societal impact is more aligned with dominant public sector logics, whereas the concern with implementability is closer to private sector logics. As visualized by Mazzucato and Penna (2016), these two logics (i.e. societal and economic) may be viewed as opposing ends of a national system of innovation. In line with Saz-Carranza and Longo (2012) and Thornton (2004), we view the societal logics closely aligned with the dominant public sector logic (the state) and the economic logic closely aligned with the dominant private sector logic (the market). While self-interest, efficient transactions and learning through competition serves as basic norms and strategies of the market based logic, the public sector logic is defined by notions of citizenship, the production of a common good and learning through popular opinion polls (Saz-Carranza and Longo, 2012). In the empirical section that follows, we investigate how these competing logics, and the requirement to combine them, were experienced by the different teams that participated in Solution 100. First, however, we briefly note how we gathered our data and proceeded in analysing it.

4. A note on data and method of analysis

With permission from Sitra to participate in all the events that were part of Solution 100, and to interview the participating teams, we had unique access to the competition dynamics. Our longitudinal data collection covers the incubation period from its start in May 2017 to its end in November during the same year. In this period, we collected interview, survey and observational data. Our interview material comprises 90 interviews with the 15 teams that participated in the competition in addition to 5 interviews with the organising team from Sitra. Our aim was to form a dynamic and granular picture of the teams and their idea development process, paying particular attention to the competition's impact. As mentioned previously, we decided to focus our attention on the teams that participated in the competition in order to examine whether challenge prizes can function as an effective means to foster the dynamic capabilities needed, both within the private and the public sector, to deliver mission-oriented policies. After all, it can be argued that teams are now perhaps the key organisational constellation of any bureaucracy, and thus form a natural locus point for dynamic capabilities. Furthermore, teams and their idea development processes have so far only rarely been examined in social innovation research.

We interviewed each participating team six times at an interval of five to six weeks. In each interview, we surveyed the state of the team's social innovation idea, their understanding of the social problem being addressed, their relevant interactions and episodes of collaboration with partner organisations and other teams, and their reactions to competition activities, in addition to many other items. In terms of interactions, we focused both on intra-team activities as well as interactions with competing teams, experts and mentors, and events and activities external to the competition. We also asked the teams to respond to 14 online questionnaires, the purpose of which was to survey relevant and useful conversations that the teams had engaged in during a given week (and that were therefore still fresh on their mind). In the interviews, we asked the teams to elaborate on some of the key conversations that they had noted down in the questionnaires. Finally, we attended half of the events organised by Sitra as part of the incubation phase, making ethnographic observations about their general outcomes, the nature of mentoring conversations, the teams' progress and their attitudes and feelings towards the competition. In our interviews with the organising team (part of which were covered in the previous section), we focused on their motivations, aims and broader vision for the challenge prize, as well as on reflections about the process and their role, in particular, as the competition progressed.

For the current paper, we conducted a detailed analysis of a subsample of six teams. We selected teams in accordance with the principles of theoretical sampling (Glaser and Strauss, 1967) in that all the chosen teams could be clearly categorized as either private- or public sector teams. Our selection criteria were based on the assumption that the two groups embrace different institutional logics, as described in the previous section. We anticipated that the different groups would encounter the logics of the competition differently, and would therefore be differently impacted by it. While we recognize that there were other logics among the participating teams (for instance some teams composed mainly of academics were closely aligned with the "professional logic", listed as one of the key institutional logics by Thornton (2004)), we argue that these two logics were the primary drivers of the challenge prize, and we therefore wanted to examine how teams that were closely aligned to one of the two competing logics encountered and reacted to

the competition, where a key criteria for success was the ability to combine the two. We acknowledge that our sampling criteria may provide an overtly simplistic view of the competition dynamics. At the same time, however, a focus on extreme cases facilitates theory development by providing contrasts and visibility into divergent patterns (Eisenhardt and Graebner, 2007).

Following an extensive single-case analysis that resulted in the four major themes listed in Table 1, we conducted a comparative multi-case analysis across the six teams. Our single case analysis revealed notable differences between the teams in how they carried out their development process, their attitudes towards social innovation, their reaction to feedback, and their perception of the value gained from the competition. As recommended by Eisenhardt (1989), we searched for patterns of within-case similarities and cross-case differences by comparing the identified themes in each team. These comparisons enabled us to reconcile why the competition impacted different teams in different ways, and the explanation repeatedly returned to whether the team had been categorized as a private sector- or public sector team. For instance, in the early stages of the incubation, whereas private sector teams were more concerned with quickly moving towards piloting and product development, public sector teams spent an extensive amount of time forming a deep understanding of the social issue being addressed. We present the results of our analysis in the next section.

5. Encountering the institutional logics of Solution 100 at the team level

In order to explore the different ways in which teams with different professional backgrounds engaged with the institutional logics of Solution 100, we chose a sub-sample of six teams for a detailed analysis. Since we deliberately picked teams representing two distinct fields, three from the private sector, and three from the public sector, we expected that the various institutional logics inherent in different sectors would have an impact on how the teams interacted with the competition.

Through our single and cross-case analysis we identified four different themes related to how the private and public sector teams interacted with the competition. Through these, the competition steered the direction of the private and public sector teams' innovation process in different ways. The four identified themes are highlighted in Table 1 and consist of:

- the teams' development process,
- their attitudes towards social innovation,
- their reaction to feedback, and,
- their perception of the value gained from the competition.

In what follows, we review the four themes providing empirical examples for each.

Table 1. Contrasting institutional logics between private sector and public sector teams during Solution 100

	Private sector teams	Public sector teams
Development process	Solution-driven	Problem-driven
Attitude toward social innovation	Embraced it	Problematised it
Reaction to feedback	Filtered it	Confounded and/or demoralised by it
Value gained from competition	Opportunities to reframe and test solution	Began learning start-up mindset and working practices

5.1 The development process: Solution vs problem driven

An immediate difference between private sector and public sector teams could be observed in their respective development processes. Whereas private sector teams often started with at least a vague idea of the solution they wanted to develop, public sector teams typically spent an extensive amount of time trying to form a deeper understanding of the problem they wanted to address. These differences in approach impacted dramatically upon what activities the teams prioritised, particularly in the early stages of the competition.

The sense of urgency is exemplified by private sector team a, who expressed to us very early on their “need to get down to business immediately so that we will have something concrete to show when we hand in our final assignment”. This, combined with a mentality that “we are all committed to this project regardless of whether or not we win the competition” led the team to engage in an intense hands-on partnership with a government agency, whereby the team provided a novel technological solution to automate parts of the government agency’s operations. Another private sector team, private sector team b, explained to us that the incubation phase has “allowed us to take our solution through a standard product development cycle”. In other words, the six-month incubation format, where solutions are developed with rapid pace, was a logic that the private sector teams recognised and felt at ease with immediately.

In sometimes stark contrast, the same urgency to move quickly towards product development could not be observed in public sector teams. Instead, they often expressed a conviction that introducing a new innovation to the public sector was a slow and complex process, and that considerable effort was needed to comprehend the dynamics of the social problem being addressed. One team, public sector team a, talked about how their strategy was to “take a research-evidence based approach and bring scientific evidence to the final assignment”. Consequently, the team spent the majority of their time during the competition researching the problem that they were going to solve “once they had won the competition”, as they put it. Another public sector team, public sector team b, reasoned around their similarly extensive focus on problem-definition that:

‘Coming up with a technical solution is not enough, but we need a lot of understanding of the problem and a lot of stakeholders to be able to influence the rigid societal structures [...] It is not until we have this deep understanding of the problem and a broader network that we can build the solution with the million dollar grant from the competition.’

Reflecting on their development process at the end of the competition, public sector teams often noted how they had ended up running out of time with developing their solutions. As a consequence, they commonly struggled with the evaluation criteria of implementability in the competition, and failed to demonstrate a readiness to move their solution forward no matter the results of the competition. Whereas private sector teams regularly reported a desire to develop their solutions irrespective of the competition, public sector teams spoke in the past tense, explaining that their solution could only be properly developed after the competition had been won.

5.2 Attitude towards social innovation

As noted in the previous section, one of Solution 100's key competition criteria was implementability, defined as financial viability beyond the potential prize money. From the very beginning therefore, teams had to devise business models as part of their solutions. Social innovation, although a multifaceted concept characterised by a significant degree of flexibility, has sometimes been associated with entrepreneurial perspectives where social challenges are viewed not only as risks but also as sources of economic opportunity (Sabato et al., 2017: 155).

Almost without exception, private sector teams embraced the opportunity to combine business and societal impact. Through the incubation support, these teams were introduced to new frameworks and concepts to reframe their solutions with. Private sector team a, devised of members almost exclusively from the world of business, reflected on the competition:

'And then there is this social impact thinking that makes us consider the broader effects of our work. This has been a wonderful process that I've come to like very much; the point is we are developing a social programme as well as a business.'

In sum, private sector teams felt invigorated by the fact that they were contributing to solving a social issue, while feeling at ease with developing a viable business model as a base for that. In sometimes stark contrast, public sector teams were more confounded or even demoralised by the idea of having to consider business models as part of their solutions. Public sector team b expressed later on in the competition how it had initially come as a shock to have to consider business models as part of their solution:

'After the latest event we've been thinking a lot about whether this competition is the right funding channel for us. Initially we thought this would be a genuine social innovation competition, but that idea is gone by now. For all the work we've put into this, we could probably find an easier source of funding. Maybe we've understood the idea behind this competition all wrong, because it seems to us more like a funding channel for start-ups rather than a real social innovation competition. We've been puzzled when mentors advise "to think about who is going to pay for what" and "this is a business" for many times for sure. We thought we had come here to solve a social problem.'

Indeed, the team repeatedly talked about how they felt demotivated and misplaced in the competition due to the dual focus on business and social impact, a perception very much shared by other public sector teams. In addition to having contrasting views on social innovation, private- and public sector teams differed sometimes significantly in how they related to the public sector more generally. Private sector teams often argued for the necessity of their solution as an outcome of the inability of the state to deal effectively with a social problem. They often explained that what they wanted to do with their solution was to "disrupt" current dysfunctional governmental structures.

Public sector teams, in contrast, building on a deep understanding of governance structures in Finland, often expressed a desire to build upon and improve existing models within the public sector. Public sector team c explained their focus:

'All of these existing models are a really excellent foundation, and it is on top of them that we wish to build our solution [...] So there isn't really anything that ground-breaking about our solution, but what we are doing is far more systematic and structured than what has been attempted before [...] Our solution is not a pilot or a product, but instead, an operating model that will be rooted in to the existing education system [...] short term projects or pilots do not change established cultures, only structured approaches can achieve genuine impact.'

5.3 Reaction to feedback

Another marked difference between the two groups could be observed in how they related to the feedback given to them, by mentors, judges and competition organisers, during the incubation. Private sector teams, perhaps more used to pitching their ideas to investors and other audiences, did usually not have an issue with the content of the feedback or the manner in which it was communicated. Instead, they seemed effective in filtering it, and selectively taking on board those aspects of it that they deemed useful. Reflecting on the feedback received from the competition judges, private sector team a, commented:

'I would say that the judges were fairly critical towards everyone. I think that they did a good job. They had really set out to spot the weaknesses in the solutions. Personally, I'm fairly used to being heavily criticised. Once you've taken a good beating a couple of times, it doesn't hurt that bad anymore. Of course, I do understand that criticism can sometimes hurt. But if I think about it, we are all adults here, and we are talking about a very significant amount of public investment. It's therefore very understandable to me that they've reviewed the solutions with a microscope.'

Private sector team b, similarly brought up the issue of harsh critique in relation to an instance where they had been criticised by a mentor for their decision to start collaborating with a public entity:

'The tensest situation was a mentoring session during the social impact bootcamp. He completely put our idea down whilst explaining that it was not worth getting into business with the public sector, since these issues with social impact will remain interesting only for a couple of years and no more. In the end we decided that this was only one person's opinion and decided to proceed with our initial idea as planned.'

This and other examples demonstrate how private sector teams were rarely demoralised by strong feedback, but instead, were able to filter it and take on board suggestions selectively.

Public sector teams, in contrast, often struggled with the feedback received. In particular, they had difficulties coming to terms with contrasting pieces of advice, demonstrated by the following excerpts from public sector team c:

'Each feedback session resulted with us entirely revising our solution [...] we started to feel really exhausted with constantly having to shift our focus, ending up almost entirely losing the thread at some point.'

'It was an upsetting moment for us when, after having done a significant amount of work on our solution, we introduced it to someone who speaks a totally different language and looks at things purely from a business perspective. He challenged us, but not in a good way.'

Such experiences often led public sector teams to question their suitability for the competition. Another public sector team, public sector team a, was continuously discouraged by the feedback received during the incubation, shifting their focus after each mentoring session. Having been initially highly motivated, the teams felt deeply demoralised by the final feedback from the competition judges:

'We initially wanted to develop a mobile application. However, throughout the competition we received advice that the application would not be enough. But then when the result came, it seemed like it had been fine for everyone else to have a simple technical solution. We don't feel like we have been treated equally to others, and probably this competition wasn't for us. If there's one thing I've learned it's not to pay attention to everyone's advice!'

In other words, instead of evaluating the feedback based on their own unique expertise, they too often took it literally. In effect, they were so strongly influenced by the competition that it was no longer productive for them. In general, therefore, when public sector teams met institutional logics that contrasted with their own, the experience discouraged them and sent them into a negative spiral.

5.4 Value gained from competition

Much of the perceived value gained from the competition was shared across private and public sector teams. Universal to all, was that the competition opened up new networks and contacts with important user, stakeholder and sponsor groups. Furthermore, the prestigious competition increased the teams' legitimacy in the eyes of the media and potential partners and customers. The teams reported for instance having noticed that various stakeholders and prospective customers found them much more credible having been admitted into the well-known and prestigious challenge prize. Some teams reported that their enquiries would never have had led to anything, were it not for the prestige gained from the competition. In addition, the competition provided a framework for the teams to move proceed in a structured way, which teams from both groups dearly valued.

In addition to the shared benefits, fundamental differences also existed between the two groups. In general, for private sector teams, the competition provided an opportunity to reframe and test a solution, particularly from the viewpoint of societal impact, which they had often already been developing before. Private sector team a explained:

'We have been given the opportunity to really condense and define our idea better than before. As a result, a new product has emerged. Artificial intelligence is such an extensive field that our company could, in theory, work with a very wide range of possibilities, but we've been encouraged to really reflect on what would be the one product that we should offer. And it seems to be taking off very nicely indeed.'

Similarly, private sector team c, repeatedly reflected upon how they had reframed their solution as a result of the feedback received within the framework of the competition and also outside of it. In other words, they had no issues with presenting their idea in public and to challenge and test their idea with different audiences. As a result, their idea and their ability to communicate it effectively developed progressively during the competition. At the end of the incubation, the team reported having reached a certain confidence level with their solution, and that they were ready to move from piloting and prototyping to production. A similar pattern could be observed in other private sector teams. For instance, private sector team b continuously iterated their solution as a result of competition sessions and co-creation projects together with a public sector customer. By participating in the competition, the team got a major first customer, a large governmental agency in Finland, which then opened the door to other customers in the public sector. The team explained to us that after the competition "customers were just waiting for us to be ready to jump into production".

While private sector teams moved quickly to a production phase, public sector teams, in contrast, commonly went through the competition without running any concrete pilots with actual prototypes - thereby failing to reframe and test their solution effectively. While this may be partially due to their more intense focus on problem specification, public sector teams were often also more closed, not taking full advantage of the incubation support offered. Public sector teams were furthermore rarely interested in collaboration or idea sharing with competing teams. In the end, public sector teams reflected on the competition as an opportunity to learn new skills, practices

and the startup mentality, which could prove hugely beneficial in their day to day work in the future. Public sector team c explained:

'[...] we have learned about many things that the world of research does not deal with very much. Pitching and all the other things related to communications and being in the spotlight and visible in the media — these are all invaluable and will soon spread to the realm of academic research too.'

The competition therefore potentially enacted cultural change in the public sector by arming employees with new skills and mindsets.

Furthermore, it can be suggested that competition improved public sector teams' knowledge and capabilities to take their idea forward in the future, albeit not in the immediate manner as was the case for private sector teams. Further demoralised by the enormous resistance met at the point where they tried to introduce their social innovation to the Finnish public sector after the competition, one team noted that Solution 100 should be ran in Finland state wide:

'I've sat in different seminars for 25 years. At regular intervals someone from abroad comes along and tells people that you should be doing this. Then everyone is like great, let's start doing that. But by the end of the day nothing changes. Instead, the same people sit there doing things exactly the same way as they've always done them. Sitra should organise these things for all civil servants and state organisations in Finland, because that is the only way to enact real change. It's all good for us to sit here when everyone is open to change and doing things in a new way. But in the end civil servants will put down every single suggestion, because they do not genuinely want change. If Sitra wants social change, it must start organising these competitions for the entire public sector.'

6 Conclusion: What role should innovation agencies play in the future?

In this paper, we have sought to contribute to discussions about mission-oriented innovation, dynamic capabilities in the public sector, and welfare state governance by exploring empirically the challenge prize Solution 100. Our investigation has revealed that prizes, sometimes assumed to be simple tools to spur innovations, in fact involve complex issues of prize governance. Our analysis demonstrates that challenge prizes impact private and public sector teams very differently, raising critical questions about the format, particularly in relation to its evaluative criteria. From setting the challenge, to choosing mentors and judges, competition organisers are faced with a series of normative choices that influence what types of initiatives will be set into motion by the competition. Simply put, the way you design a prize has implications for the solutions you get. Although further research is required to assess whether the educational benefits of the challenge prize for public sector workers can lead to permanent changes in public sector cultures and mentalities, our findings suggest that challenge prizes can function as one potential avenue for fostering dynamic capabilities (of a particular kind) in the public sector. In light of this finding too, future prize organisers must reflect deeply on the types of cultures and mentalities they wish to promote in their prize design. Private sector cultures and mentalities, as demonstrated also by our research, certainly have their limitations when it comes to addressing societal issues.

Such insights raise the important question whether competition organisers should in the future seek to accommodate more effectively for both private and public sector logics in their design. More generally, what logics should competitions seek to promote and reward in order to enact genuine social change? A general risk exists that competitions end up promoting solutions which, albeit fitting well into the framework of the current economic order, are powerless in tackling the deeper structural issues that inevitably lie at the root of societal problems. Should competing teams for example be made more aware of the potential negative impacts of their social innovations to ensure that challenge prizes reinforce a dynamic of welfare state reform instead of retrenchment? (Fougère et al., 2017: 839–840). Follow up research is needed to assess whether the social innovations produced during Solution 100 were able to institutionalise into, or indeed replace, existing governance structures of the Finnish welfare state.

A final set of questions thus concerns the future role of innovation agencies such as Sitra. If innovation is always political, does participating more actively in the innovation process inevitably come with the risk of being perceived as aligning too closely to either side of the political spectrum? Our findings indicate that social innovations can face major resistance from existing governance structures often highly resistant to change. How actively and in what manner should innovation agencies, such as Sitra, participate in promoting broader societal change? If structural changes to the welfare state are, as many now argue, imminent, does this mean that innovation agencies must focus more actively on supporting the diffusion, rather than invention of innovations? How could this be achieved whilst remaining politically impartial? Clearly, understanding how public institutions can engage a wide variety of stakeholders in defining the

direction of travel is one of the key areas of concern for any government wishing to pursue mission-oriented policies.

References

- Briggs, A. (1961). The Welfare State in Historical Perspective. *European Journal of Sociology* 2(2): 221–258.
- Cottam, H. (2018). *Radical Help: How We Can Remake the Relationships between Us and Revolutionise the Welfare State*. Virago.
- Danielsbacka, M. and Kujala, A. (2015). *Hyvinvointivaltion Loppu: Vallanpitäjät, Kansa Ja Vastavuoroisuus [The End of the Welfare State? The Establishment, the People and Reciprocity]*. Tammi.
- Ehrnrooth, J. (2015). *Hyvintoimintayhteiskunta [The Well-Doing Society]*. Kirjapaja.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *The Academy of Management Review* 14(4): 532–550. DOI: 10.2307/258557.
- Eisenhardt, K. M. and Graebner, M. E. (2007). Theory Building From Cases: Opportunities And Challenges. *Academy of Management Journal* 50(1): 25–32. DOI: 10.5465/amj.2007.24160888.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Polity Press.
- Experimental Finland. (2019). *Kokeileva Suomi [Experimental Finland]*. Available at: <https://kokeilevasuomi.fi/en/frontpage> (accessed 29 April 2019).
- Foray, D., Mowery, D. C. and Nelson, R. R. (2012). Public R&D and social challenges: What lessons from mission R&D programs? *Research Policy* 41(10). The need for a new generation of policy instruments to respond to the Grand Challenges: 1697–1702. DOI: 10.1016/j.respol.2012.07.011.
- Foucault, M. (2007). *Security, Territory, Population: Lectures at the College de France, 1977-78*. Basingstoke: Palgrave Macmillan.
- Fougère, M., Segercrantz, B. and Seeck, H. (2017). A critical reading of the European Union's social innovation policy discourse: (Re)legitimizing neoliberalism. *Organization* 24(6): 819–843. DOI: 10.1177/1350508416685171.
- Friedland, R. and Alford, R. (1991). Bringing Society Back In: Symbols, Practices and Institutional Contradictions. In: Powell W and Dimaggio P (eds.) *The New Institutionalism in Organizational Analysis*. University Of Chicago Press, pp. 232–263. Available at: <http://www.amazon.ca/exec/obidos/redirect?tag=citeulike09-20&path=ASIN/0226677095> (accessed 13 February 2019).
- Garland, D. (2014). The Welfare State: A Fundamental Dimension of Modern Government. *European Journal of Sociology / Archives Européennes de Sociologie* 55(3): 327–364. DOI: 10.1017/S0003975614000162.
- Garland, D. (2016). *The Welfare State: A Very Short Introduction*. Oxford: Oxford University Press.
- Glaser, B. G. and Strauss, A. L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Aldine.
- Gough, I. and Therborn, G. (2010). Global futures of the welfare state. *Oxford handbook of comparative welfare states*: 703–720.
- Kattel, R. (2018). What makes states entrepreneurial? In: UCL IIPP Blog. Available at: <https://medium.com/iipp-blog/what-makes-states-entrepreneurial-7dd397d1fc70> (accessed 13 February 2019).
- Kattel, R. and Mazzucato, M. (2018). Mission-oriented innovation policy and dynamic capabilities in the public sector. UCL Institute for Innovation and Public Purpose Working Paper, IIPP WP 2018-01. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2018/jul/mission-oriented-innovation-policy-and-dynamic-capabilities-public-sector> (accessed 7 November 2018).
- Kattel, R., Mazzucato, M., Ryan-Collins, J. and Sharpe, S. (2018). The economics of change: Policy and appraisal for missions, market shaping and public purpose. UCL Institute for Innovation and Public Purpose Working Paper, IIPP WP 2018-06. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2018/jul/economics-change-policy-and-appraisal-missions-market-shaping-and-public> (accessed 15 January 2019).
- Kay, L. (2012). Opportunities and Challenges in the Use of Innovation Prizes as a Government Policy Instrument. *Minerva* 50(2): 191–196. DOI: 10.1007/s11024-012-9198-2.
- Mazzucato, M. (2013). *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. London: Anthem Press.
- Mazzucato, M. (2017). *Mission-Oriented Innovation Policy: Challenges and Opportunities*. UCL Institute for Innovation and Public Purpose Working Paper, IIPP WP 2017-01.
- Mazzucato, M. (2018). *The Value of Everything: Making and Taking in the Global Economy*. London: Allen Lane.

- Mazzucato, M. and Penna, C. (2016). *Mission-Oriented Finance for Innovation: New Ideas for Investment-Led Growth*. London: Policy Network/Rowman & Littlefield.
- Mjøset, L. (2016). The Nordic route to development. In: Reinert ES, Ghosh J, and Kattel R (eds.) *Handbook of Alternative Theories of Economic Development*. Edward Elgar Publishing Ltd, pp. 533–569. Available at: https://www.elgaronline.com/view/edcoll/9781782544661/9781782544661_00037.xml (accessed 23 August 2019).
- Murray, F., Stern, S., Campbell, G. and MacCormack, A. (2012) Grand Innovation Prizes: A theoretical, normative, and empirical evaluation. *Research Policy* 41(10). The need for a new generation of policy instruments to respond to the Grand Challenges: 1779–1792. DOI: 10.1016/j.respol.2012.06.013.
- Nesta. (2014). *Challenge Prizes: A practice guide*. Available at: <https://www.nesta.org.uk/publications/challenge-prizes-practice-guide> (accessed 14 February 2018).
- Patel, M. (2013). Why Open Contests Work. *Stanford Social Innovation Review*. Available at: https://ssir.org/articles/entry/four_reasons_why_open_contests_work (accessed 21 November 2017).
- Pierson, C. (1998). *Beyond the Welfare State? The New Political Economy of Welfare*. Penn State Press.
- Rothstein, B. (1998). *Just Institutions Matter: The Moral and Political Logic of the Universal Welfare State*. Cambridge University Press.
- Sabato, S., Vanhercke, B. and Verschraegen, G. (2017). Connecting entrepreneurship with policy experimentation? The EU framework for social innovation. *Innovation: The European Journal of Social Science Research* 30(2): 147–167. DOI: 10.1080/13511610.2017.1282308.
- Saz-Carranza, A. and Longo, F. (2012). Managing Competing Institutional Logics in Public–Private Joint Ventures. *Public Management Review* 14(3): 331–357. DOI: 10.1080/14719037.2011.637407.
- Sitra. (2018). *Competition criteria for Solution 100*. Helsinki: Sitra.
- Sitra. (2019). *History - Sitra*. Available at: <https://www.sitra.fi/en/topics/history/> (accessed 29 April 2019).
- Starr, K. (2013). Dump the Prizes. *Stanford Social Innovation Review*. Available at: https://ssir.org/articles/entry/dump_the_prizes (accessed 21 November 2017).
- Therborn, G. and Roebroek, J. (1986). The Irreversible Welfare State: Its Recent Maturation, its Encounter with the Economic Crisis, and its Future Prospects. *International Journal of Health Services* 16(3): 319–338. DOI: 10.2190/DNXX-MU7P-9MJ6-DLA2.
- Thornton, P. H. (2004). *Markets from Culture: Institutional Logics and Organizational Decisions in Higher Education Publishing*. Stanford University Press.
- Thornton, P. H. and Ocasio, W. (1999). Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958- 1990. *American Journal of Sociology* 105(3): 801–843. DOI: 10.1086/210361.
- Williams, H. (2012). Innovation Inducement Prizes: Connecting Research to Policy. *Journal of Policy Analysis and Management* 31(3): 752–776. DOI: 10.1002/pam.21638.
- Youn, A. (2013). Dump the Stupid Prizes, Multiply the Rest. *Stanford Social Innovation Review*. Available at: https://ssir.org/articles/entry/dump_the_emstupid_prizes_em_multiply_the_rest (accessed 14 February 2018).

The IIPP Working Paper and Policy Report series

- IIPP WP 2017-01 [Mission-Oriented innovation policy: Challenges and opportunities](#). Mariana Mazzucato
- IIPP WP 2017-02 [Thinking about technology policy: 'Market Failures' versus 'Innovation systems'](#). Richard R Nelson
- IIPP WP 2017-03 [Technological capacity in the public sector: the Case of Estonia](#). Veiko Lember, Rainer Kattel, Piret Tõnurist
- IIPP WP 2017-04 [Rethinking value in health Innovation: From mystification towards prescriptions](#). Mariana Mazzucato, Victor Roy
- IIPP WP 2017-05 [Patient strategic finance: Opportunities for state investment banks in the UK](#). Mariana Mazzucato, Laurie Macfarlane
- IIPP WP 2018-01 [State investment banks and patient finance: An international comparison](#). Laurie Macfarlane, Mariana Mazzucato
- IIPP WP 2018-02 [Putting austerity to bed: Technical progress, aggregate demand and the supermultiplier](#). Matteo Deleidi, Mariana Mazzucato
- IIPP WP 2018-03 [The bit and the rainforest: Towards the evolutionary theory of policy capacity](#). Erkki Karo, Rainer Kattel
- IIPP WP 2018-04 [Financing green growth](#). Semieniuk Gregor, Mariana Mazzucato
- IIPP WP 2018-05 [Mission-oriented innovation policy and dynamic capabilities in the public sector](#). Rainer Kattel, Mariana Mazzucato
- IIPP WP 2018-06 [The economics of change: Policy and appraisal for missions, market shaping and public purpose](#). Rainer Kattel, Mariana Mazzucato, Josh Ryan-Collins, Simon Sharpe
- IIPP WP 2018-07 [Movements with missions make markets](#). Charles Leadbeater
- IIPP WP 2018-08 [Bringing the helicopter to ground: A historical review of fiscal-monetary coordination to support economic growth in the 20th century](#). Josh Ryan-Collins, Frank van Lerven
- IIPP WP 2018-09 [Estonia's digital transformation: Mission mystique and the hiding hand](#). Rainer Kattel, Ines Mergel
- IIPP WP 2018-10 [The people's prescription: Re-imagining health innovation to deliver public health](#). UCL Institute for Innovation and Public Purpose, Stop Aids, Just Treatment, Global Justice Now
- IIPP WP 2018-11 [Credit where it's due: A historical, theoretical and empirical review of credit guidance policies in the 20th century](#). Dirk Bezemer, Josh Ryan-Collins, Frank van Lerven and Lu Zhang
- IIPP WP 2019-01 [Supermultiplier, innovation and the ecosystem: A stock-flow dynamic model](#). Matteo Deleidi, Riccardo Pariboni, Marco Veronese Passarella
- IIPP WP 2019-02 [A mission-oriented framework for the Scottish National Investment Bank](#). Mariana Mazzucato, Laurie Macfarlane
- IIPP WP 2019-03 [A framework for mission-oriented innovation policy roadmapping for the SDGs](#). Mariana Mazzucato, Laurie Macfarlane
- IIPP WP 2019-04 [A Mission-Oriented UK Industrial Strategy](#). UCL Commission for Mission-Oriented Innovation and Industrial Strategy (MOIIS)
- IIPP WP 2019-05 [Putting value creation back into 'public value': From market fixing to market shaping](#). Mariana Mazzucato, Josh Ryan-Collins
- IIPP WP 2019-06 [The macroeconomic impact of government innovation policies: A quantitative assessment](#). Matteo Deleidi, Vincenzo De Lipsis, Mariana Mazzucato, Josh Ryan-Collins, Paolo Agnolucci

- IIPP WP 2019-07 [Financial and legal barriers to the creation and operation of a British national investment bank](#). Rob Calvert
Jump, Natalya Naqvi
- IIPP WP 2019-08 [Public investment fiscal multipliers: An empirical assessment for European countries](#). Matteo Deleidi,
Francesca Iafrate, Enrico Sergio Levrero
- IIPP WP 2019-09 [Socialising the risks and rewards of public investments: Economic, policy and legal issues](#). Andrea Laplane,
Mariana Mazzucato
- IIPP WP 2019-10 [Neither crowding in nor out: Public direct investment mobilising private investment into renewable electricity projects](#). Matteo Deleidi, Mariana Mazzucato, Gregor Semieniuk
- IIPP WP 2019-11 [Social structures of accumulation in Greece, 1980-2014](#). Angeliki Papadopoulou, Giorgos Gouzoulis
- IIPP WP 2019-12 [Innovation bureaucracies: How agile stability creates the entrepreneurial state](#).
Rainer Kattel, Wolfgang Drechsler, Erkki Karo
- IIPP WP 2019-12 [Innovation bureaucracies: How agile stability creates the entrepreneurial state](#).
Rainer Kattel, Wolfgang Drechsler, Erkki Karo
- IIPP WP 2019-13 [Climate-related financial policy in a world of radical uncertainty: Towards a precautionary approach](#).
Hugues Chenet, Josh Ryan-Collins, Frank van Lerven
- IIPP WP 2020-01 [The public economy: Understanding government as a producer](#). June Sekera
- IIPP WP 2020-02 [The entrepreneurial \(welfare\) state? Tackling social issues through challenge prizes](#). Ville Takala, Emma
Nordbäck and Tuukka Toivonen

All Working Papers are available to download at the Institute for Innovation and Public Purpose website: ucl.ac.uk/iipp

ucl.ac.uk/iipp

 [@IIPP_UCL](https://twitter.com/IIPP_UCL)

UCL Institute for Innovation and Public Purpose
Gower Street, London, WC1E 6BT

General enquiries:

iipp-research@ucl.ac.uk

Tel: +44 (0)20 3108 6961

