Working in Beta: Testing Urban Experiments and Innovation Policy Within Dublin City Council

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Abstract This chapter describes Dublin City Council (DCC) Beta, an initiative developed as part of the City Council's Architects' Division to experiment, innovate and quickly test ideas directly 'on the street'. Through the detailing of a number of Beta Projects, it illustrates how a project is initiated, what the key processes are, what the role of the citizen is and how the outcomes of completed projects are measured and formalised. It also discusses the Beta Model, highlighting the opportunities and challenges that such a model present for other city governments. Ultimately, it addresses the question of how such an initiative can increase the potential for more inclusive, immediate and innovative approaches to urban problems in a context of risk-averse city governments with increasing constraints of both resources and finance alongside a growing demand for greater democratic authorship and ownership of the built environment.

Keywords Urban governance · Citizen engagement · Experimentation Urban innovation · Scalability

1 Introduction

> Beta testing is rarely done in the field of placemaking, which is ironic considering that the longest-lasting products we create are the places in which we live. (Ermacora and Bullivant 2015, p. 76)

While the means, and degree to which citizens participate in urban development projects has been under scrutiny at least since the late 1960 s when Arnstein categorised the levels of citizen participation in *A Ladder of Citizen Participation* (1969), over the past decade, local governments and city authorities around the world have come under renewed pressure to open up their processes and investigate new and

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alternative models for citizen engagement. A combination of factors that incorporate the shrinking budgets of local governments (Forlano 2013), a growing perception of declining social inclusion and cohesion (de Lange and de Waal 2013) and the rejection of traditional consultation processes in urban design projects (Beebeejaun 2016) have all contributed to a growing public appetite for alternative modes of citizen engagement in urban decision-making processes. Advancements in digital and networked media technology have also played a significant role in increased expectations from citizens for public engagement in matters pertaining to their local environment (Ermacora and Bullivant 2015). This includes the significant role of social media as a tool for facilitating citizen engagement and collaborative design in urban design projects (de Lange and de Waal 2013; Saunders and Baeck 2015), the emergence of social platforms that allow communities to form around concepts and causes (Ratti and Claudel 2016), as well the availability of new platforms for hosting dialogues between citizens and local government (Ermacora and Bullivant 2015), which have collectively contributed to 'a new definition of the urban public sphere' (de Waal 2014).

As a result of these changes, both citizens and city authorities have started to look for new ways to include citizens in urban decision-making and planning in more empowering, democratic and meaningful ways. The concept of *parklets* (Merker 2010)—the conversion of parking spots or other underused public space into tiny parks, complete with greenery and seating—illustrates a citizen-led initiative that has since been adopted as an official city programme. Parklets were originally a public space hack by the artists and urban interventionists group 'Rebar' in San Francisco in 2005, which allowed the group 'the freedom to experiment with our chosen medium—public space—without the risks inherent in public bureaucracy' (Bela 2015). When the city saw that they could create an avenue for businesses and residents to apply for a permit to convert underused street space into an amenity that served the community better, they adopted the strategy as an official city programme. Similarly, initiatives such as New Lots Triangle Plaza (New York City Department of Transportation 2011) in New York—a community requested public space project to enhance streets and support local businesses—also demonstrated this new collaborative approach to city-making, as it was implemented through the government in collaboration with a non-profit organisation and the local business owners.

Attempts by city governments to open up their processes have contributed to the emergence of urban innovation labs in different cities around the world (Crawford and Walters 2013; Saunders and Baeck 2015; Townsend 2013). Commonly, these labs have a direct connection to the public sector (city council, local government) and have been developed to challenge complex public issues that more traditional governmental structures seek to resolve. With the general aim of developing innovative solutions to urban problems, the labs are typically made up of designers, public officials, and local business and community members. An example of one such lab is 'New Urban Mechanics', an initiative based within city government in Boston that experiments with new designs and policies with a strong emphasis on civic engagement (Townsend 2013; New Urban Mechanics 2016). Lauded as a successful case in its ability to facilitate collaborations between various city government departments

and the public (Crawford and Walters 2013), New Urban Mechanics has also managed to expand into a network of civic innovation offices, whereby individually, each civic office builds partnerships between internal agencies and outside entrepreneurs to pilot projects that address residents' needs and then as a network, lessons are shared so that good practice can be scaled more rapidly (New Urban Mechanics 2016).

The above examples of citizen engagement originating from both citizen-led and government-led resources can be understood to exhibit some important common lessons and challenges. For example, the approach of implementing trial projects 'on the street' and seeking public opinion as exemplified by both the parklets and the urban innovation labs could be seen as viable alternatives to traditional citizen engagement measures. Indeed, in terms of the key outputs of urban innovation labs, citizen engagement is sometimes perceived to be as important if not more important than the actual innovation itself. This is illustrated through the case of the aforementioned New Urban Mechanics, for which the co-chair Chris Osgood has described the public engagement factor to be more important than the innovation itself, stated that the new offering 'should be a distant second, relative to improving new models of civic engagement or adding value to the lives of constituents' (Townsend 2013, 216).

But while the examples of implementing parklets and plazas illustrate the potential of hacks to the city's public space and demonstrate public engagement on a local level, there is debate as to whether a localised approach such as this diminishes the possibility of achieving cohesive city design. In '*The Fall of Public Man*', Richard Sennett argues that contemporary design for community has been based on an inability on the part of urban planners and designers to deal with the city as a whole. He debates that designing for small-scale community can undermine the city at large and encourage the establishment of isolated fractions. This splintering can make the city difficult to govern and can hinder participatory planning processes. He laments that '…today planners have largely given up hope on properly designing the city as a whole—because they have come to recognise both their own limits of knowledge and their lack of political clout' (Sennett 1977, 294). On the other hand, in describing the preferable scale for rolling out smart technology innovations, Anthony Townsend comments that historically a local scale has been the best approach for policy innovation as this scale makes it 'easier to engage participants and identify problems, and the impact of new solutions can be seen immediately' (Townsend 2013, 10). Clearly, there are outstanding questions concerning the systemic application and viable scalability of citizen and local government-led initiatives such as those mentioned here, as well as questions concerning the role of physical interventions themselves.

In this chapter, the case of Dublin City Council (DCC) Beta will be explored as a concrete instantiation of one such local government-led initiative. Stemming from the identification of a need for the city council to be able to innovate through the use of experimentation and to engage more actively with citizens, DCC Beta was initially proposed as a '10% Innovation Time Project' by a staff member of the City Architects' Division in 2012 and later became a formalised City Architects project

in 2015, before being discontinued in 2016. During that intervening time, DCC Beta was developed for the purpose of experimenting, innovating and quickly testing ideas directly 'on the street'. The next section of this chapter will explain the origins, the guiding principles and the general operations and processes of the DCC Beta. This will be followed by a section dedicated to describing three individual DCC Beta Projects as detailed case studies and finally, the chapter concludes with a discussion of the outcomes, successes and shortcomings of the DCC Beta platform.

2 The Story of DCC Beta

The need for city governments to rethink their processes and investigate alternatives to citizen engagement resulted in the emergence of local government-led initiatives such as the urban innovation labs. But within this type of initiative, there was also a need for new mechanisms to allow for experimentation with new ideas outside of the traditionally restrictive operations of local government. This challenge of overcoming commonly arduous planning hurdles and red tape led to the initiation of a new model for trialling small-scale projects in the city.

2.1 The Origins of DCC Beta

Conceived of as a means of bypassing the normal lengthy and bureaucratic process of implementing trial projects, Dublin City Council (DCC) Beta operated from 2012 to 2016 as part of the City Council's Architects' Division as a live mechanism to trial, assess and implement test ideas directly in the city. According to the DCC Beta website, 'Dublin City and Dublin City Council need to be able to easily and regularly freely discuss ideas and to innovate—and to innovate you need to be able to experiment and to then learn from those experiments, and which in turn enables greater discussion' (DCC Beta 2014).

The initiative was instigated as an individual response to the realisation of how difficult it was to trial ideas in the city council, and also the lack of personal motivation that results from the hierarchical structures in the institution. DCC Beta was also prompted by the observation that certain previously realised public realm projects by the city council that were described as trials (i.e. projects to be implemented on a temporary basis) but were in effect irreversible without major disruption. New ideas receive a cautious reaction in the city council, so a need was identified for a platform that allowed experiments to happen independently from other formal projects. In addition, DCC Beta also sought to find a place to discuss new concepts and not the specific location that prompted them.

In January 2012, DCC Beta was proposed as a '10% Innovation Time Project' by a staff member of the City Architects Division, the division of approximately thirty members of staff, which is responsible for promoting design and providing architec-

tural, urban and conservation design services to Dublin City Council (Dublin City Council 2016). DCC Beta operated on two primary levels. Firstly, it developed so-called Beta Projects—individual physical projects for testing micro-scale solutions to problems in the city that were usually supplemented by a high level of citizen and local business involvement. Secondly and in parallel with the development of Beta Projects, DCC Beta developed the Beta Model, as an approach to develop an 'innovation ecosystem' within DCC which would enable city council staff to become accustomed to the idea of experimentation and evidence-based learning within the city council.

The first Beta Project went live in March 2012. DCC Beta was primarily led by a single staff member from the City Council's Architects' Division while other members of staff had also been self-selecting themselves and getting involved with various Beta Projects as required. These 'diagonal slices' (i.e. not adhering to hierarchical structures) across the organisation formed non-grade-based teams with different competency staff addressing different parts of the problem and solution.

According to the DCC Beta Report (2016), the initiative had run fourteen projects in total, six of which were scaled to a certain degree and one that had become a formalised stand-alone project. Examples of the types of projects include the implementation of novel forms of bicycle parking solutions and hangars, the design and implementation of parklets, the trialling of rain box planters and the creation of platforms for public art initiatives. In addition, the Beta Projects had supported and informed the development of the Beta Model. This model was an attempt to establish an innovation ecosystem within the city council which would improve the capacity of city council staff to innovate and provide them the capability and road map to do so in a controlled environment. The Beta Model also aimed to improve the systematic accumulation of internal knowledge so that this knowledge could be shared efficiently across innovative projects and teams within the council.

2.2 Key Principles of DCC Beta

As part of its operation, DCC Beta relied on a number of key elements and principles which included using lean techniques, leveraging public feedback, adhering to decision classification and measuring itself. A dominant influence on DCC Beta was the Lean Startup, an influential book in start-up culture which promoted experimentation, iterative testing and validated learning as aspects of a successful methodology for developing businesses and products (Ries 2011). Techniques and elements of this Lean Startup process were adapted and tweaked by DCC Beta in order to better suit their use with the complex issues and opportunities that cities and local government tend to face. For example, one of the techniques was to use 'Lean Resourcing', which meant trialling projects only for as long as was required to test assumptions and to only make solutions as big as they need to be to effectively test the idea. Another Lean Startup technique borrowed by DCC Beta was to follow a 'Build-Measure-Learn' loop when trialling projects. This technique focuses on rapid iterations of product

development whereby emphasis is put on quickly building a product or prototype, measuring its effectiveness in the real world, and then learning from that experiment.

While approximately half of the Beta Projects originated as a result of suggestions from city council staff internally, the other half were made up of those suggested by the public via the DCC Beta website and social media channels and so public input and feedback played a pivotal role for both the origin and development of the individual Beta Projects. Social media channels were very active, and regular blogposts on the project website were designed to communicate the processes being developed as part of DCC Beta and to update the public on the status of specific Beta Projects. Through these media, public feedback was actively encouraged and commonly questions are asked of the public, for example, 'What do you think of the idea?' or 'How could you see the idea being used or changed?'. The use of project-specific hashtags on social media was also encouraged in order to generate debate and to aid people in following the conversation. Because Beta Projects were trialled 'in the real world' as soon as possible, this enables DCC Beta to see how an idea was actually performing in real life, and it also allowed the public a chance to give feedback and suggestions during the early stages of a project while it was still relatively easy to change direction.

As part of drawing up the process for DCC Beta Projects, one of the issues that emerged was the need to have a more coherent mechanism for prioritising project suggestions and defining which projects would be developed. For example, when the issue of on-street dumping was initially explored under DCC Beta, it became apparent that it was potentially a popular project with multiple high-quality suggestions coming from the public and city council staff, of how to address the problem. It also became clear that on-street dumping represented a 'wicked problem' (Rittel and Webber 1973), i.e. a highly complex problem with multiple feedback loops, which would require multiple different Beta Projects. In order to be able to deal with a complex challenge such as on-street dumping, DCC Beta would need to develop a mechanism for concurrently managing and prioritising multiple Beta Projects. Therefore, a framework was proposed by DCC Beta that enabled individual larger challenges (e.g. on-street dumping, housing) to be defined as a result of input from senior management of the city council, as well as elected officials and DCC Beta staff. Then, below each of these larger challenges would fall the individual Beta Projects by per suggestions from citizens and DCC Beta staff. This framework would allow for projects to be prioritised succinctly and transparently while communicating (internally and for the public) what projects were being undertaken. The framework also enabled senior management input into larger challenges while maintaining a hands-off approach to individual projects.

Arising from 'Build-Measure-Learn', another Lean Startup technique, a metrics system was also developed by DCC Beta and applied as a means of assessing Beta Projects once a trial had lapsed. In doing so, the metrics system provided evidence of the impact of individual Beta Projects, allowing DCC to make actionable decisions about each Beta Project and justifying requests for additional DCC resources to specific Beta Projects. This wide set of metrics was defined based on the experience of developing the individual Beta Projects in order to reflect both the experience of the public and the council. They included a number of hard metrics (e.g. cost, time

and resources, demand and transferability) as well as soft metrics (e.g. perception, engagement, sustainability and resilience). These soft metrics were based on qualitative feedback from the public as collected during the trial, for example, questioning how the project impacted on their perception of the area where it was trialled or what impact a project had on their sustainable travel choices.

2.3 The Process for Beta Projects

Beta Projects followed a rigid A–F process, as devised by DCC Beta staff for the purpose of applying a systematic methodology to each of the individual Beta Projects. Below is a brief description of the individual steps.

- *Step A: Awareness*—What is the issue or opportunity that needs looking at? Awareness of an issue can come in three different ways: 'bottom-up' (based on suggestions from citizens), 'middle-out' (based on everyday awareness of an issue or opportunity by Dublin City Council's staff) or 'top-down' (based on issues raised by Dublin City Council's management or Central Government/EU policy changes, etc.).
- *Step B: Baseline*—What's the situation around it as of today? How much is spent on the current solution? Are there other issues that directly or indirectly result out of the issue?
- *Step C: Create Knowing*—A + B above, what are all of the various ways this could be solved?
- *Step D: Decide*—Prioritisation of the various solutions.
- *Step E: Effect, Evaluate, Evolve*—Prototyping of solutions in order of priority to test all of the assumptions around it and application of evaluation metrics. As necessary, evolution of the idea over multiple iterations.
- *Step F*: *Formalise*—Once a solution has been found, it is formalised, usually in the form of an open report. In some cases, formalisation will also require that policy arrangements are adopted in order to formalise the idea, for example, to resolve any planning issues, financial/staffing/departmental issues, legal issues, procurement and council policies.

At the end of a Beta Project, a 'Beta Project Report Card'[1] is compiled, the objective of which is to let people know how the Beta Project went, what was measured, how feedback and suggestions were taken into account and what the outcomes of the project were.

By employing the above described metric system, the intention was that it would reveal a simple, clear, decision for DCC Beta staff at the end of each Beta Project. The decision would then fall under one of the four following classifications, as originally devised by DCC Beta:

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[1]For an example of a 'Beta Project Report Card', see https://dubcitybeta.files.wordpress.com/2015/11/beta-project-report-card-public-full-bike-hangar-version-1-1.pdf (accessed 01 June 2017).

- Pull (wouldn't appear to be a good solution in any way, time to pull it);
- Pivot (use what has been learned in order to make a major change in direction);
- Persevere (on right track, need to learn more);
- Policy (would appear to be a good solution, formalise as necessary—e.g. planning, hard infrastructure).

For example, a Beta Project might undergo three iterations before a good solution is found. The first two Beta Project Report Cards (as compiled and evaluated by DCC Beta staff) could report the need to 'Persevere' and then the final Report Card would report the need to move to 'Policy'. While on the one hand, this classification system ensured the provision of a clear and definite decision, it was also acknowledged by DCC Beta staff, that the system was not without its own limitations, in that there was often internal disagreement amongst DCC Beta and city council staff on which was the correct decision to take and who should have the executive power to decide.

3 Beta Projects

This section will detail the cases of three Beta Projects—the Bike Hangar, the Street Parklet and the Traffic Light Box Artworks—as examples of how the DCC Beta process was applied. These three examples serve to illustrate different cases that have undergone varying degrees of scaling and formalisation. The Bike Hangar is an example of a Beta Project that had completed a single iteration and the Street Parklet an example of a Beta Project that had undergone multiple iterations, while Traffic Light Box Artworks is a former Beta Project that has become part of a formalised policy. The case studies demonstrate a number of details including how the decision-making processes evolved, how the Beta Projects were assessed and the varying degree to which the public and external stakeholders had an influence on the project outcomes.

3.1 Case Study 1—The Bike Hangar Beta Project

The origins of this Beta Project stemmed from the identification by city council staff, of a need to better support people in storing their bicycles near their homes in a safe and convenient manner. Addressing this need also aligned itself to the Dublin City Council 2011–2017 Development Plan, which prioritised promoting cycling as a sustainable mode of transport in Dublin. The need to address this issue was further reinforced when in October 2013, DCC Beta held a public workshop in collaboration with 'City Intersections', an urban forum for the city of Dublin. The workshop gave people a chance to come up with their own Beta Projects by asking them three questions. The questions included: 'What is the problem or opportunity you see?', 'Why is it a problem for you personally?' and 'How might this issue be addressed?'.

Afterwards, members of the public explained their ideas and potential solutions and the idea of providing bike hangars emerged as one of the top items that people would like to have had addressed.

Subsequently, DCC Beta began to explore the idea of on-street bicycle hangars as a solution for residents to better store their bicycles. Because this was a city-wide issue, the focus of the research was around policy and if/how it should be done. Another major focus for the Beta Project was to test public reaction to the idea. A public call looking for a household to trial the proposed hangar was issued via social media in Autumn 2014. In addition to the call, a set of discussion points were published in relation to the proposed hangar, in order to provoke public discussion. In January 2015, on choosing a household and location for the Beta Project, a single Cyclehoop hangar was installed on John Dillon Street in Dublin's south inner city. This specific location was chosen on the grounds that the street generally had a low occupancy of its car parking provision and had a low rate of through traffic, as well as the fact that it was in close proximity to the relevant Dublin City Council staff. Six individuals from four households took part in this trial of a single bicycle hangar at this one location.

Following the installation, news reports on local and national media reiterated the call for feedback on the hangar from the general public. At a very early stage, a spokesman for the council stated that 100 submissions of feedback had been received since the first hangar was installed last week, and that 'almost all' were positive.[2] In addition, tours of the hangar were offered by DCC Beta staff to the public via social media during lunchtimes and evenings on three occasions. The bicycle hangar was removed at the trial end (as per the Beta plan), after 5 months.

The evaluation of this first iteration of the Bike Hangar Beta Project showed that the trial participants reported that using the hangar was a generally positive experience. It also showed that there would appear to be a large demand for this solution ranging from the city centre to the inner suburbs but that distance to the nearest hangar and aspects such as pricing could be expected to have an impact on this.

After submissions have been evaluated and discussed internally amongst the various city council departments, a decision of 'Persevere' was made with the scheme. This means that while the first iteration of Beta Project was successful, further learning is required as to how the hangar might work in alternative locations and another iteration of the trial would be developed before it would be considered as a policy.

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[2]Sam Griffin, "Public asked to get behind new bike 'hangars' in Dublin", http://www.independent.ie/irish-news/public-asked-to-get-behind-new-bike-hangars-in-dublin-30949725.html (accessed 01 June 2017).

3.2 Case Study 2—The Street Parklet Beta Project

As a result of a suggestion from a member of the public, this Beta Project began to look at the 'Street Parklet' concept—an idea which involved converting a parking space into a 'mini-park', very often to act as an additional resource space for a nearby business. In preparation for this Beta Project, the key staff member behind DCC Beta spoke to the organisers of Park(ing) Day Dublin[3] (a one-day festival that hosts parklets around the city) and also to a number of business proprietors who had expressed interest in the idea. It was decided to locate the first iteration of the Street Parklet Beta Project on a parking spot outside of a pub on Capel Street, a busy mixed-use street in the north inner city of Dublin. In selecting a site for the parklet, there was specific criteria including that the trial site would be reasonably visible/busy, that it wasn't too busy from a traffic and parking point of view, that the site would be watched over by an interested party and that a need for a parklet would be reasonably realistic—i.e. somewhere where people might like to be able to sit outside. This location was partly chosen as there was a lower level of pressure for car parking there than surrounding areas and through traffic was relatively low. As part of Park(ing) Day Dublin, a local landscape architect had previously proposed a one-day parklet at this location, and so he was chosen to design and install the parklet as a Beta Project.

The parklet was popular with the business management, and their customers and noncustomers appeared to have also felt welcome to sit at the parklet. The staff at the pub were very supportive of the parklet (both in seeking out its installation and also in its maintenance). Each night at closing, the pub staff removed the temporary seating and replaced it upon opening the following day. This first iteration of the Street Parklet Beta Project was in place for two weeks. Much of the feedback received indicated that it had a positive effect on the immediate area and that there was an unmet need in the city and opportunity for the city council to further explore policy on long-term parklet provision in the city. In terms of changes to the public realm, parklets appear to have the capacity to provide a more interesting street experience as they animate both sides of the footpath, in a way that pavement chairs and tables cannot. According to recommendations as set out in the Beta Project Report Card, 'as a result of observations, and conversations with, parents and children at the parklet, there may be ways that such a policy could find ways to encourage city-living by families or encourage parents to visit the city centre with their children, or as a draw for specific businesses in the city. This option should be further explored'.[4] In conclusion, it was decided that a series of longer trials in diverse locations and scenarios would be beneficial to better assess the potential impact of parklets on the local residential and business community.

Following this, in May 2015, a second iteration of the Street Parklet Beta Project was temporarily installed next to a cafe on South William Street, in the south inner

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[3] 'Park(ing) Day', http://www.dublinparkingday.org/parking (accessed 01 June 2017).

[4] 'Report Card Street Parklet', https://dubcitybeta.wordpress.com/2014/10/16/report-card-street-parklet (accessed 01 June 2017).

city of Dublin. The second iteration, which was in place for three months, featured a new parklet design that was designed, fabricated and installed by the city council's own joinery workshop and while in operation the parklet, was tended to (swept it in the mornings and watered the plants as necessary) by the nearby cafe. The parklet was designed to have a basic, generic, design so that the debate would be primarily about the concept rather than being overly focused on the aesthetics. Both iterations helped DCC Beta see what practical issues or opportunities might arise from parklets and inform any possible related policy. In terms of impact on the city, it appeared that the parklets were popular in both locations and that there was a certain level of demand from other businesses. Following subsequent evaluation of the second iteration, a decision was again made by DCC Beta staff to 'Persevere' with the parklet scheme, meaning that the idea was worth pursuing further but would require further iterations with trials in alternative locations before being considered as a city-wide policy.

3.3 Case Study 3—The Traffic Light Box Artworks Beta Project

This Beta Project was seeking to solve an ongoing maintenance issue due to tagging, graffiti and stickering of traffic light boxes and the ongoing need to repaint with associated costs. A secondary aim was the improved visual amenity and creation of locally referenced talking points. The solution proposed was that by putting artworks onto the boxes we could remove or alleviate the need for maintenance, while improving the public realm experience. The first iteration of this Beta Project took place in the Markets Area of Dublin as here there were eleven suitable traffic light boxes. There was an open call for expression of interest in painting these boxes with art and a defined brief was given. This Beta Project only looked at artworks on the boxes, and not any forms of commercial work or advertising. Once submissions had qualified (i.e. fit the criteria—which all submissions incidentally did), they were voted on by those who had participated and those with a stated interested who were invited to an open meeting. Eleven designs were selected from fifteen submissions. The boxes were then painted over an agreed period of time to maximise affect and the trial ran for twelve months from June 2012 to July 2013. Commentary on social media and from local business and residents was very positive. Some pieces were favoured over others, but this is naturally subjective.

On evaluation of this Beta Project, it was verified that the objective of reducing the amount of graffiti/tagging and the associated costs of removal which is a significant direct cost saving to Dublin City Council had been achieved. It was also evident that the Traffic Light Box Artworks were successful in adding to the visual amenity of streets and were very popular with both locals and tourists. In the light of this being a proven solution to addressing the maintenance issue of traffic light boxes, the decision taken was 'Policy', as per the DCC Beta decision classification, and plans were made to develop the necessary policy. The traffic light boxes Beta Project

was the first and only Beta Project to progress to this stage, an achievement which DCC Beta staff attributed to the fact that it was a positive and quite easily defined project.

However, it is worth noting that the decision to formalise the project and roll it out on a larger scale posed a new set of challenges for DCC Beta as the question now arose as to who should run the fully-fledged initiative. In the end, 'Dublin Canvas'[5] an independent community art project with a particular interest in the traffic light boxes artworks, volunteered to manage the project but the shift from a trial to a formalised project, demonstrated that DCC Beta still had a lot to learn in terms of scaling up initiatives and adopting appropriate business models.

4   Discussion

In discussing the outcomes of DCC Beta, the reasons for which DCC Beta could be seen as an approximated form of 'City Hacking' will be elaborated on. Additionally, the discussion features a summary of the valuable lessons that the experiences of DCC Beta can offer to other city governments who wish to develop a culture of innovation and experimentation. In conclusion, some of the notable shortcomings of the project are outlined and finally, further associated development and research for the institutionalisation of hackable city practices are suggested.

4.1   DCC Beta as an Approximated Form of 'City Hacking'

In the context of a conservative and risk-averse institution, the instantiation of both the Beta Model and the Beta Project suggests an attempt of developing an unconventional approach to traditional city-making from within the city government itself and so it could be argued that DCC Beta is a form of 'urban hacking'. More specifically, through the individual Beta Projects, DCC Beta is seen to embrace trial projects and to leverage the collective intelligence of the public in order to develop micro-scale solutions to urban problems, while the development of the Beta Model itself is seen as a genuine attempt to develop an 'innovation ecosystem' within the city council and therefore introduce a systematic methodology which enabled city council staff to cut through the institutional silos and to become accustomed to the idea of experimentation and evidence-based learning. By providing staff with the capacity and clear road map to innovate in a controlled manner, the Beta Model has the potential to overcome barriers to change while also ensuring the resilience of solutions that are being developed.

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[5] 'Dublin Canvas', http://www.dublincanvas.com/ (accessed 01 June 2017).

4.2 Lessons from DCC Beta

DCC Beta demonstrated that it was possible to temporarily implement projects in the city with an alternative approach in order to support iterative testing, better public engagement and to better manage risk through the use of the beta testing method. Whereby the traditional approach to testing out ideas and implementing projects can be costly and long drawn out (as every eventuality is attempted to be worked out in advance of implementation), DCC Beta allowed the city council to test new ideas in a different way that emphasised learning through small-scale experiments with the potential to scale up. This approach enabled a process of continual learning, reflection and evaluation which resulted in better insights and data on which a later project brief, or a tender, could be based.

In addition, DCC Beta leveraged the diverse wealth of local and expert knowledge that existed outside the city council through engaging with citizens and organisations in the development of the individual Beta Projects. The strong focus on maintaining a public discussion around the Beta Projects via on-street reports cards, blogposts and social media, allowed DCC Beta to tap into the collective intelligence inherent to the wider public while also making it easy for the public to have a say on the individual Beta Projects. Equally, by creating physical on-street prototypes, each Beta Project developed as a talking point between the city council and the public. And while Beta Projects were not classified as conventional or direct public engagement initiatives, by their very physical and visible nature, they were noted as being one of the council's most successful examples of citizen engagement.[6]

4.3 Potential Future Development and Research

Although the advantages of sourcing ideas from the public and greater citizen engagement are clear, one of the issues that emerged over the course of DCC Beta was the need for a coherent mechanism for prioritising projects. So, although on the one hand, the described framework for prioritising projects (which organised individual Beta Projects suggestions under large city-wide challenges) added a welcome structure to the hierarchy of projects and demonstrated how the city council were working on several large issues with short- and long-term solutions, on the other hand, it opens up significant questions about the decision-making behind the Beta Projects. And while DCC Beta placed a strong emphasis on taking into account suggestions, input and feedback from citizens, as well as the development of a metrics system (some of which were based on public feedback) to evaluate the Beta Projects, the decision-making processes around Beta Projects are firmly dictated by senior management or staff members of the city council. This restrictive level of participation inherent to DCC Beta is also noted by Cardullo and Kitchin, whereby they suggest that this type

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[6] 'Some Councillors want DCC Beta Projects Back', www.dublininquirer.com/2016/12/07/some-councillors-want-beta-projects-back (accessed 01 June 2017).

of participation is 'often instrumental rather than empowering in a political sense' (Cardullo and Kitchin 2017). Further development of DCC Beta might thus seek to incorporate a more transparent, open and democratic system for the purpose of decision-making connected to DCC Beta.

Another important issue that warrants further investigation as part of any future development of DCC Beta concerns scalability as arguably the real challenge in urban innovation and governance is providing a solid framework that allows ideas to take hold and grow. As Anthony Townsend acknowledges, 'the grass roots may be a source of new ideas, but what they need is someone who can design and deliver a robust infrastructure that is centrally planned to be safe, efficient, and reliable at a reasonable cost…Scaling up things that work at the grass roots is a challenge few have overcome' (Townsend 2013, 165).

The failure to scale DCC Beta is inevitably dually linked to the modest resources behind the project while in existence and the fact that in December 2016, a decision was made to discontinue DCC Beta. According to the City Architects Divisions, the official reasons for this discontinuation were due to the lack of resources and finance,[7] which is understandable considering the undeniable pressures on the City Architects Division in the context of the severe ongoing housing crisis. Since the discontinuation of DCC Beta, a subsequent pilot project called 'Framework' has been initiated as a joint initiative of Dublin City Architects Division and the American Institute of Architects to empower 'communities to improve their built environment through an open, collaborative and systematic approach'.[8] A subsequent report published as part of the Framework pilot presents a set of recommendations and while the pilot approach is arguably more integrated and holistic approach to one defined area of the city centre than that of the single intervention approach of DCC Beta, it is interesting to note that many of the 'lighter, quicker, cheaper' recommendations[9] include interventions which mirror those of the DCC Beta Projects, including the provision of parklets and low cost public art.

The conclusion of these recommendations is strong evidence that there is indeed a genuine need for the type of solutions as those which had previously been developed and trialled by DCC Beta. While it remains to be seen how and when these proposed recommendations would be implemented as per the Framework project, it does raise the question as to whether it is productive for local government to seek to reinvent the wheel in this way or instead, to commit adequate resources to and continue to invest in the development of existing mechanisms such as DCC Beta. On this note, the short-lived case of DCC Beta points to a need to further examine the broader factors of democratic decision-making in local government and institutional support for alternative urban innovation initiatives.

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[7]Some Councillors want DCC Beta Projects Back. www.dublininquirer.com/2016/12/07/some-councillors-want-beta-projects-back (accessed 01 June 2017).

[8]Framework Pilot Project http://www.pivotdublin.com/projects/framework-pilot/ (accessed 01 June 2017).

[9]Reimagining Dublin One. http://designframework.ie/wp-content/uploads/2017/03/Reimaging-Dublin-One-Document.pdf (accessed 01 June 2017).

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