



# **DEVELOP AND DELIVER**

## **Making the case for social R&D infrastructure**



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Canada

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# Executive Summary

*“Social innovation is, at its core, an inherently practical activity in which benefit must be demonstrated in a relatively short period. These benefits must be obtained at a relatively low cost and be culturally and technologically appropriate. One important aspect of Benjamin Franklin’s success [as a social innovator] was the careful orchestration of what he might have termed experiments. Use of this strategy was evident in the founding of subscription libraries and the paving and lighting of Philadelphia.”<sup>1</sup> ~ Michael Mumford*

Innovation is Canada’s policy frame du jour. After ‘ifs’ ‘ands’ and ‘buts’, ‘innovation’ was the word most used in the 2017 federal budget. If innovation is a catalyst of economic growth, then social innovation is a catalyst of inclusive growth. There’s growing consensus that GDP isn’t the only measure that matters. Wellbeing does too. And yet, social innovation is even less understood and incentivized than business innovation. What will it take to spawn Benjamin Franklins in Canada? How can Canada move beyond good intentions to real social impact?

We make five arguments:

- (1) Innovation means adding value to people’s lives. Ideas do not equal innovations. Unfortunately, current policy emphasizes ideas, not their development or their diffusion.
- (2) To transform lives on the margins, public and private funders will need to invest along the entire development continuum from research to invention to innovation.
- (3) Capital, talent, connections, and data underpin the path from research questions to insights to practices that add social value.

- (4) Social service organizations operate within a particularly competitive and risk adverse context with limited access to capital, talent, data, or networks.
- (5) The federal government’s social innovation toolbox does not help social service organizations overcome these contextual barriers. By rethinking notions of fairness and accountability, government might help unlock greater creativity, learning, and ultimately, impact.

There is a big opportunity space. We offer ten suggestions – some big, some small – for how the federal government can step into this space.

First, a note about perspective and voice. The ‘we’ in this paper refers to a partnership of three community living providers in metro Vancouver, one multi-service community organization in Toronto, and an international social design firm. The five of us have come together to invest in shared R&D, invent new practice models, and over time, with grit and luck, transform outcomes. We will cite our joint work as case studies to illustrate what it takes to move closer to both root and branch change.

<sup>1</sup> Michael D. Mumford (2002). “Social Innovation: Ten Cases From Benjamin Franklin.” *Creativity Research Journal*, 14:2, 253-266.

# Chapter 1: Setting the scene



*“It’s the same s--, just a different day.”*

Dustin was at the street corner sipping a tallboy. He did not bother with the paper bag. There was no need to hide; the street was where he felt most at home.

For thirty years, Dustin has made a living from pan-handling, social welfare benefits, and service usage. He spends his time at the drop-in centre on the corner checking-in with caseworkers, but mostly watching the drama unfold. “It’s like a soap opera here, it really is.”

Despite changes to the social policy context, little has changed for Dustin. As a beneficiary of Housing First policies, Dustin holds keys to a one-bedroom apartment. Still, he sleeps rough. He is a regular presence in the emergency room. Not because he likes doctors, but because his chronic joint pain flares up night and day.

Dustin is very likely to be part of the one-percent of Canadians who account for one-third of health care costs.<sup>2</sup> He is also a ‘super user’ of social assistance and justice services.<sup>3</sup> Dustin’s experiences are not the average Canadian’s experience – 11.9% of people live below the poverty line – slightly higher than the 11% OECD average. Although poverty

rates are now declining and there has been a 30% increase in median family incomes, more and more Canadians struggle alongside Dustin with the costs and stressors of daily life.<sup>4</sup>

The 2016 Canadian Index of Wellbeing (CIW) concludes that, *“The gap between economic growth and wellbeing is widening. Since 1994, GDP has been rising several times faster than the CIW. Our wellbeing consistently lags behind GDP, demonstrating what we already intuitively know, and now have evidence to support: a good life is not just about our economy.”*

Jean-Yves Duclos, the Federal Minister of Families, Children and Social Development, shared a similar message in a 2016 speech. To get to better lives, he argued, economic development must be coupled with both sustainable development and inclusive development. He went further: If innovation is a driver of economic growth, then social innovation is a driver of inclusive development – of a Canada where all citizens, Dustin included, are thriving and not just surviving.

*“In university, I learned that GDP can be defined as a function of the variables A,*

<sup>2</sup> <http://www.cbc.ca/news/health/health-care-high-cost-users-1.3398628>

<sup>3</sup> The term super user describes people, who despite high service utilization still experience poor outcomes .

<sup>4</sup> Canadian Index of Wellbeing. (2016). “How are Canadians Really Doing?” Waterloo, ON: University of Waterloo.

*K, and L. L represents labor... K represents private and public infrastructure. But, I'd like to focus on what I consider to be the most mysterious element: A. A is often defined by economists as technological innovation. But there's more than technological innovation; there's also social innovation...<sup>5</sup>*

Canada's 2017 budget further ensconces innovation as the dominant policy frame.

*"Done right, innovation not only helps to strengthen and grow the middle class, it opens up possibilities for improving our quality of life: better, more effective health care; smarter, more connected cities; and cleaner, more sustainable energy, among many other examples. An innovative Canada is a healthier, stronger, more prosperous Canada..."<sup>6</sup>*

The big question, then, is: what is innovation done right, let alone, *social* innovation done right? What does it say that wellbeing outcomes are stagnating in spite of greater social welfare spending?

In this paper we will argue that, to date, social innovation within the social welfare sector has been confused with social service improvements. The policy levers and financial incentives have emphasized optimization rather than transformation. Innovation dollars still largely flow to program delivery. There has been little investment in developing breakthrough social interventions or in diffusing the conditions required for those interventions to create real value for real people like Dustin.

This argument is not specific to social innovation. Two of Canada's top business thinkers offer similar assessments of the country's innovation capacity. Dan Breznitz, Munk Chair of Innovation Studies at the University of Toronto, writes:

*"Here is Canada's problem: We are failing at commercialization of ideas across the board in all industries, and in all sizes and ages of companies. Only 2.2 per cent of our firms even engage with innovation, and business R&D spending has been systematically declining for 15 years. If there is a global gold medal in innovation failure, then sure, Canada owns the podium."<sup>7</sup>*

It's not that Canada lacks good research and good ideas. It's that good ideas are a necessary but insufficient condition for innovation.

Roger Martin, former Dean of Rotman School of Management, says Canada's innovation policy doesn't work because it fails to differentiate between the two.

*"Innovations are often built from inventions. Mobile telephony required new findings in cellular technology... But we should not assume that inventions naturally lead to innovation. And even if they do, that often takes a long time. As scientist and designer William Buxton put it, 'Innovation is far more about prospecting, mining, refining, and adding value to gold than it is about alchemy.'<sup>8</sup>*

Prospecting for ideas, mining, refining, and adding value to them is particularly foreign to the social welfare sector. Indeed, while the same weaknesses are evident in both innovation and social innovation policy, what is specific to social services is the degree to which innovation rubs against its operating structures, contractual obligations, cultural norms, and workforce skills.

The social welfare sector is made up of more than 19,000 organizations employing over 100,000 frontline workers. These are the caseworkers, social workers, housing workers, addiction workers, aged care workers, disability support workers, and employment workers hired to care for people, not reinvent the model of care, nor innovate from the perspective of end users like Dustin.

If we want to get to new social products, processes, services and systems that add value to people's lives then we need to re-purpose the social welfare sector and add a development not just a delivery function. Rather than just offer one-off grants for new ideas, investment is needed along the entire development continuum from research to invention to innovation.

<sup>5</sup> Retrieved from: <http://news.gc.ca/web/article-en.do?nid=1131609>

<sup>6</sup> #Budget 2017. (2017). "Building a strong middle class."

<sup>7</sup> Dan Breznitz. (2016). "Canada's Innovation Agenda." *The Globe and Mail*, April 23.

<sup>8</sup> Roger Martin. (2010). "What is innovation really?" Institute for Competitiveness and Prosperity.

## Chapter 2: Definitions



We can define social innovation as both the generation and implementation of new ideas about how people organize interpersonal activities and interactions to improve social outcomes.<sup>8</sup>

A well-known commercial innovation serves as an instructive example. The 4-inch iPod transformed the music industry and the consumer music experience. When it was unveiled on October 23, 2001, it was the culmination of years of basic research & design, of creative combinations of old inventions (e.g. firewire technology) with new inventions (e.g. the scroll wheel controller), and a clever new platform (iTunes) coupled with a value chain that upended traditional music licensing & business models.

What has been the equivalent transformation within the social welfare sector? Arguably, de-institutionalization had transformative potential for people living with cognitive disabilities. A social model of disability replaced the biomedical model; inclusion,

rights and identity overtook the dominant medical perspective of defectiveness and segregation. But, these big ideas have not translated, at scale, into new patterns of interaction. Statutory and contractual obligations, labour relations, professional training, and compliance cultures are influential institutional features that have persisted within group homes & day programs.

Without an R&D to innovation function, the community living sector was unable to seize the opportunity to reinvent itself. Statcan numbers confirm just how little systematic R&D happens within non-profits. In 2015, non-profit organizations allocated \$148 million to in-house R&D compared to \$15.5 billion set aside for R&D by for-profit enterprises.<sup>9</sup> Yet 90% of non-profit R&D went to medical, engineering, and health sciences. A mere 10% went towards research within the social sciences and humanities. Without a robust pipeline of new knowledge or ways to apply it, there's little wonder Dustin's service experiences have not changed in 30 years. Instead, social policy interventions masquerading as new are often recycled variants of the old.

We can think about R&D, then, as the experimental process of gaining fresh insights to solve problems and find opportunities. Invention is the creative process by which new insights and personal experiences are harnessed to develop original products, tools, processes, and technologies. R&D and invention bleed into one another. Innovation happens when people use and find value in those inventions - and when rules, networks, and resources shift to enable adoption and diffusion. Where invention is driven by the inventor, innovation must be informed by users. Only by understanding what people and systems need can innovators find the levers for change. Table 1.1 offers a set of definitions.

<sup>8</sup> Michael Mumford. (2002). Social Innovation: Ten cases from Benjamin Franklin. *Creativity Research Journal*.

<sup>9</sup> Retrieved from: <http://www.statcan.gc.ca/daily-quotidien/160815/dq160815a-eng.htm>

<sup>10</sup> Roger Martin. (2010). "What is innovation really?" *Institute for Competitiveness and Prosperity*.

	<b>Research &amp; Development</b>	<b>&gt; Invention</b>	<b>Innovation</b>
Definition	The process of acquiring know-how to help solve problems or exploit opportunities.	The creation or discovery of some new 'thing' to the world. <sup>11</sup>	Catalyzing new products, processes, or systems so that they add value to people's lives. <sup>11</sup>
Informed by	Practitioners and academics	Entrepreneurs and inventors	Consumers and end users
What does it look like in the social, health, & education sectors?	New data and actionable insights into human behavior and social systems	New professional practices, social programs, tools, and technologies	New rules, routines, cultures, networks, and resource flows that facilitate use
Example	Road death data, experimental studies, early mock-ups and prototypes	The retractable seat belt	Regulation and education leading to a 95% usage rate of seatbelts and a 47% reduction in deaths in Canada <sup>13</sup>

**Table 1:1:** Definitions

The discontinuity between R&D, invention, and innovation has long bedeviled policymakers. Back in 1945, United States President Franklin D. Roosevelt tasked his Science Director Vannevar Bush to re-imagine the future of innovation. Roosevelt wanted to leverage the value of wartime research, writing, *“The diffusion of such knowledge should help us stimulate new enterprises, provide jobs for our returning servicemen and other workers, and make possible great strides for the improvement of national wellbeing.”*<sup>12</sup>

Post war, R&D practice spread outside academic and military institutions and into private industry. Still, best practice was to separate research and ideas. Scientists in white lab coats staffed commercial research laboratories, and then handed over their insights to separate product design and engineering teams to dream up inventions. This bifurcated model produced some big scientific discoveries – AT&T’s Bell Labs won

six Nobel prizes for their inventions. But, as the Economist describes, that R&D model no longer works for the fast-paced, information rich, and service oriented economy of today. Eric Schmidt, the Executive Chairman of Alphabet, notes that, “The lesson learnt is that you don’t isolate researchers. The smart people on the hill method no longer works. Researchers have become intellectual mercenaries for product teams: they are there to solve immediate needs.” Drawing on examples from Google, Microsoft, Xerox and others, the Economist concludes that:

*“The fusion of research and development is meant to solve the central shortcoming of [Vannevar] Bush’s plan: how to turn ideas into commercial innovations. Great ideas may moulder without a way to develop them...Inside large companies the transfer has been so difficult that it provided a huge incentive to join the two churches of “R” and “D” together.”*<sup>14</sup>

<sup>11</sup> Roger Martin. (2010). “What is innovation really?” Institute for Competitiveness and Prosperity.

<sup>12</sup> “The Rise and Fall of Corporate R&D: Out of Dusty Labs.” (2007). *The Economist*, March 3-9, pp.74-76.

<sup>13</sup> <https://www.tc.gc.ca/eng/motorvehiclesafety/tp-tp15145-1201.htm>

<sup>14</sup> Anna Spiwak. (2017). “Public access to federal R&D.” *R&D Mag*, February 17. <https://www.rdmag.com/article/2017/02/public-access-federal-r-d>

Social service organizations have not experienced this R&D evolution. They are still largely post-war institutions *without* an R&D big bang. Not only is there little to no internal R&D spending, there are few mechanisms for drawing on external research. Most social research unfolds in university settings, within single-issue departments where faculty members are rewarded for authoring papers in peer-reviewed journals. Despite growing recognition of the research-to-practice gap, about 30% of social science and 80% of humanities articles are never cited, let alone applied in the field.<sup>15</sup>

Meanwhile, on-the-ground practitioners have few ways to turn their observations into an actionable knowledge base. Professors Anthony Bryk and Louis Gomez argue that the way frontline practitioners are trained exacerbates both the research-to-practice and practice-to-research gap. Although they focus on teachers, their observations are even more apt for social service workers who have less formal education.

*“The pre-service preparation and socialization of teachers into the professional is typically devoid of significant exposure to educational statistics, research design, and measurement topics. The teacher education programs and applied research activities within schools of education are entirely separate enterprises. Not surprisingly, then, the research developed in the academy tends to be viewed by practitioners as primarily for other researchers.”<sup>16</sup>*

There are notable exceptions. Skills Society, a disability service provider in Edmonton, has formed a partnership with the University of Alberta’s Community Service Learning program. Students and practitioners collaborate on projects and jointly publish findings. And yet the short-term nature of student projects means those good ideas risk falling into the development chasm, without a

clear pathway to move from R&D to codified invention to diffused innovation.

Here is where entrepreneurs from the commercial sector could play a useful role in helping to move forward ideas. By definition, entrepreneurs are risk-takers, adept at identifying market gaps and opportunities. But unlike in the health and education sectors, there isn’t a robust or diverse commercial sector within social services. Schools, parents, hospitals, and patients buy all sorts of related products and services – from textbooks to classroom technologies to medical devices to enrichment programs. Social service clients, by their very nature, are priced out of most marketplaces. Social service providers do not always fare much better. They may buy business consultancy & facilitation services, but not typically user-facing tools. There isn’t that much choice. There are few products and services out there for people living on the margins like Dustin – which is, yet another indicator of their marginalization. That manifests into social service providers lacking ready, entrepreneurial-inclined partners with which to progress along the R&D to invention to innovation continuum.

Our partnership is another exception. In 2014, three community living providers in British Columbia - Burnaby Association for Community Inclusion, Kinsight, and posAbilities - reached out to InWithForward, a social design firm, to explore a research question: what was the experience of social isolation amongst adults living with cognitive disabilities, and what could be done about it? Rather than study social isolation within an academic context, a team of researchers, designers, and community living staff moved into a mixed market housing complex and undertook 12-weeks of ethnographic research and participatory design. Ethnographic research results in ‘thick’ data rich with user insights. Co-design sessions with individuals

<sup>15</sup> Vincent Larivière and Yves Gingras. “The decline in the concentration of citations, 1900–2007.” (2010). Retrieved from: <https://arxiv.org/ftp/arxiv/papers/0809/0809.5250.pdf>

<sup>16</sup> Anthony Bryk and Louis Gomez. (2008). “Ruminations on Reinventing an R&D Capacity for Educational Improvement.” Prepared for the American Enterprise Institute Conference, p.4.

and families enabled us to move from insights to visualized ideas. Eleven named inventions emerged. Conversations with policymakers helped us understand system priorities and pain points. One of the eleven inventions, Kudoz, seemed to meet both user and system needs - at least on paper.

Kudoz is an adult learning platform matching adults with cognitive disabilities to one-hour experiences hosted by passionate community volunteers. Adults log onto an online platform and choose experiences to fill their days and prevent intellectual stagnation. These experiences widen interests, build soft skills, and connect adults to new hobbies, volunteering & employment opportunities. Three years after the initial R&D investment, Kudoz has moved from an idea to a fledgling innovation: 500 community members have signed-up as hosts, 120+ adults with disabilities have used the platform, and 85% of end users have experienced at least one significant change in their skill level, social network, time usage, and mental health. Getting Kudoz up and running has required shifts to the broader eco-system: to health & safety routines, to HR practices, to procurement processes, to community networks and business partnerships. Yet, the innovation is far from widely adopted or diffused.

Unlike the iPod, end users are not buyers, and therefore do not drive adoption or diffusion rates. Funders do. Funders may have a different set of interests than end users, and face political timelines that alter their decision-making. Bryk and Gomez describe how, more often than not, funders look to quickly buy tools and implement programs to respond to immediate policy demands, rather than to the results of field research and user testing. Their notable exception includes School District 2 in New York where sustained local leadership, in a stable political environment, protected the space for a new literacy instruction system to take root and fundamentally change teacher practice and student outcomes.<sup>17</sup>

<sup>17</sup> Ibid

#### **Core problem**

Too many adults with cognitive disabilities face experience poverty: they lack access to lifelong learning opportunities and to social networks that can bridge them to employment & volunteering in the community.

#### **Target users**

Young adults (19-30) entering the disability service system.

#### **Elements of solution**

- New roles: Hosts are community volunteers who share their passions in one-hour learning experiences.
- New technology: An online catalogue that allows adults with disability to choose from offline learning experiences.
- New metrics: Tracking shifts in soft skills, goal orientation, and social connections: the factors underpinning employability.

#### **Results**

Kudoz engages 500 community members as hosts and nearly 100 adults with cognitive disabilities. 150 hours of 'free' support is catalyzed every month, or the equivalent of 550K/year in revenue. 85% of adults with disabilities have experienced at least one significant change: that is, a change in their motivation, soft skills, social relationships, and self-efficacy.

#### **Timeline**

Kudoz is the product of two years of concentrated R&D, starting with 3-months of original ethnographic research with 50 individuals and a year of prototyping with 100 users. Over 2017-2018, Kudoz is raising capital for scale.

#### **Partners and Funders**

Kudoz is powered by three non-profits: posAbilities, Burnaby Association for Community Inclusion, and Kinsight as well as InWithForward, a social design organization. Community Living British Columbia and the Vancouver Foundation have provided flexibility and dollars.

#### **Team**

Behind Kudoz is an interdisciplinary team that includes a service designer, interaction designer, sociologist, evaluator, teacher, and frontline disability worker.

#### **Sidebar: Kudoz**



# Chapter 3: Conditions

How do we progress the social innovation narrative beyond one-off (usually incremental) stories of change? The exceptional examples hint at some of the conditions for innovation: sustained leadership, political and financial stability, partnerships, and robust methods. The broader literature on the R&D to innovation

continuum offers up a comprehensive set of enabling factors at the individual, team, organizational, and environmental levels. We first explore what we know about these factors and then reflect on their expression within a social welfare context.

	Research & Development > Invention		Innovation
Individual	Scientific skills, deep content expertise	Lateral thinking, making, building, design	Marketing, strategy, movement building, operational, negotiation skills
Team	High intellectual freedom, high uncertainty tolerance	High task flexibility, high ambiguity tolerance	High execution, high collaboration
Organizational	Inquiry focused; rewards curiosity	Product focused; rewards creativity	Feedback focused; rewards pivots
Environmental	Access / proximity to universities, data specialists	Access / proximity to industry, manufacturing	Access / proximity to end users, policymakers
Resource flows	Infrastructure, tax credits, research grants	Patents, prizes, seed grants	Venture capital, growth capital
Cultural	Learning orientation; long-term focused but with high urgency		

**Table 1:2:** Enabling factors

Researching, inventing, and innovating are intensely human processes requiring agency, motivation, creativity, and grit. Encouraging such self-efficacy takes cultures that can both grow people’s potentiality over time and inculcate a sense of purpose now.<sup>18</sup> Rather

than rigid roles and hierarchical structures, flat structures with open communication, flexibility, and time for learning seems to grease the wheels for disruption and change. These are structures that strike the optimal balance between long-termism and urgency

<sup>18</sup> Constantine Andriopoulos. (2001). “Determinants of organizational creativity: a literature review.” *Management Decision*, 39(10), p.834-840.

to act; between emergence and clarity; between ambition and feasibility. Where exactly the balance lies depends on where in the R&D to innovation continuum you are.

On the R&D side, the balance tilts towards high uncertainty and emergence. There are far more questions than answers. Individuals require the scientific and technical skills to doggedly pursue those questions, plus the freedom to go down multiple problem-solving pathways, some of which are likely to be dead ends and roundabouts. Experimental and analytic data propels R&D teams forward. Rather than just reward results, organizations with real R&D capacity reward curiosity, trial, error and more trial. They are located in contexts where they can leverage academic expertise and draw on relevant research networks and data. Indeed, physical infrastructure is a condition of quality R&D - whether that is a laboratory, specialized technology, super high speed Internet, etc. Organizations need investment in these kinds of capital expenses plus access to specialized human resources.

Contrast R&D with the innovation side of the continuum, and the balance shifts towards clarity and concreteness. To take forward and embed inventions is less about research skills and more about activating resources, mobilizing people, building systems, and developing new narratives. Individuals with an interdisciplinary set of skills are needed. The focus shifts from the new 'thing' to how people interact with those new 'things.' User feedback data should propel innovation teams forward, setting an iterative rhythm to the work. Teams are rewarded for their response to feedback and the way in which users engage and derive value from what's been created. This requires a fundamentally different organizational logic: one that's less about self-validation and more about influencing the preferences of systems and users. Acting on user feedback requires that organizations have resource flexibility, with the capacity to pivot strategy and redirect dollars. Often, that means removing regulatory and legislative barriers that were

designed in different eras under different assumptions. Access to markets and to capital is a critical condition for growth.

In the middle of the R&D to innovation continuum sits invention. Individuals proficient at inventing can operate in a climate of high ambiguity, where they can both entertain multiple possibilities and close down unproductive paths. Where analytical and technical skills are critical for deepening R&D, generative thinking and making skills are critical for widening the inventive space. Indeed, inventors are adept at moving from concepts to prototypes. To do that, they need creative permission. Researchers call this determinant, participative safety. *"Employees can only be encouraged to think creativity if they are not afraid of criticism or punishment ... Creative employees need to be in organizations that take a long-term view in order to tolerate a few mistakes. On the contrary, short-termism may increase intolerance."*<sup>19</sup> Rather than short-term targets, literature shows that amplifying intrinsic motivation through ambitious goals, constructive feedback and informative evaluation plays a strong role in performance.

But, to keep the long-term view, organizations must have a reasonable expectation that their patience and investments will pay-off. As Suzanne Scotchmer puts it, *"Creation and discovery are mysterious processes. But whatever is required, economists are reasonably certain that incentives matter."*<sup>20</sup> How to design effective incentives is another matter. Scotchmer's sweeping historical analysis of financial incentives – from scientific patronage, to patents & copyrights, to prizes & contests, to grants – underscores the need for both upfront dollars and ex post rewards; for competitive protections and open knowledge exchange. Where prizes and open exchanges can effectively spur on inventions that address known and well-articulated needs, ex post rewards and competitive protections are necessary for inventions where the need has not been identified.

<sup>19</sup> Ibid, p.836.



### Starting points matter too

In social services, there are no formal incentives for R&D. Linda has worked for a decade at the drop-in centre Dustin frequents. Her days are organized around immediate needs and short-term demands. Little has changed at the drop-in centre over time. Plenty has changed in the neighborhood over time. The drugs are stronger. The living costs are higher. While the drop-in has no trouble meeting their contractual service volumes, there is little time, space, or human resourcing to do much else. On-the job training has equipped Linda with solid health and safety skills, but she has yet to learn about trauma, neurobiology, or behavior change. The last invention Linda remembers introduced – in 2016 – was the walkie-talkie.

Although the literature on private versus social sector innovation suggests the same conditions are necessary, the starting points are clearly very different. First, social service providers are delivery-focused organizations with a workforce trained to care for people in need. They are less motivated by money, and more by the stability and purpose of the work. Motivation matters -- these particular motivations are correlated with greater resistance to change.<sup>21</sup> Second, resistance is linked with education levels and exposure to critical thinking. About 30% of the workforce carries a university degree or diploma (compared with Canada's

Individual	Caring skills
Team	High compliance, low tolerance for risks
Organizational	Stability focused; rewards longevity
Environmental	Access to professionals, specialists
Resource flows	Service contracts, program grants
Cultural	Hierarchical, risk averse

**Table 1:3:** Service Delivery Factors

technology workforce where 51% have university degrees).<sup>22</sup> Most learn on the job, through short certificate and diploma courses. While lifelong learning opportunities are significantly correlated with innovation levels,<sup>23</sup> the professional development opportunities in the social sector often revolve around compliance with standards and attenuating health and safety risks.

Health and safety narratives are strongly engrained. Because the social service sector works with 'vulnerable' population groups, social services face significant reporting and oversight practices. Social organizations set up systems and processes to mitigate risks. While these systems and processes reduce the likelihood of things going wrong, they also reduce the likelihood that novel practices will

<sup>20</sup> Suzanne Scotchmer (2004). *Innovation and Incentives*. MIT Press: Cambridge, MA.

<sup>21</sup> Clyde Eirikur Hull and Brian H. Lio (2006) "Innovation in non-profit and for-profit organizations: Visionary, strategic, and financial considerations." *Journal of Change Management*, 6:1, 53-65.

<sup>22</sup> Retrieved from: <http://brookfieldinstitute.ca/wp-content/uploads/2016/07/The-State-of-Canadas-Tech-Sector-2016-V2.pdf>

<sup>23</sup> Nicholas Dalviigkas (2007). "The Relationship between Education and Innovation- Evidence from European Indicators." Joint Research Centre, retrieved from Electronic Platform for Adult Learning in Europe.

take root. Kristin Stalker, in her literature review of risk within the social care field, notes that, *“Risk management is increasingly taking the form of risk avoidance, located at the controlling end of the continuum. This approach uses risk as a forensic rather than predictive device, a means of allocating blame once something has gone wrong.”*<sup>24</sup>

Strong hierarchies inculcate control. Frontline workers report up the line to supervisors, who report up the line to managers, who report up the line to directors. About 50% of frontline social service workers in Canada are unionized. While there is limited empirical data suggesting unionization impedes innovation,<sup>25</sup> we do know that flatter and more collaborative workplaces are more facilitative of R&D, invention, and innovation. And it’s not just intra-organizational but inter-organizational partnerships that are key. Innovative firms report strong and generative relationships with their supply chains, as well as with academic institutions and technical partners. Social services, by contrast, are more likely to coordinate with their referral partners – other general and specialist service providers – than with diverse industries and sectors. The push for co-located and integrated service delivery models can increase efficiencies and reduce fragmentation.

There is little evidence that integrated services produce novel solutions or breakthrough innovations.<sup>26</sup> This is, in part, because of funding models which resource direct service delivery but not indirect activities like ongoing research, network building, and new product design. Social service organizations face increasing pressure to reduce indirect or overhead costs. Charity ratings are doled out based on the ratio of direct-to-indirect costs. ‘Good’ charities are those with low overhead costs. This is a perverse incentive. Low overhead costs further entrench the status quo, giving little room for asking critical questions, developing alternative models, or evaluating

change. In an article titled, *The Non-Profit Starvation Cycle*, Ann Gregory and John Howard document the effects of low overhead expenditure on non-profit functioning, let alone on R&D. Despite the crippling effects of under spending, 56% of non-profit leaders planned to cut their already minimal overheads. They write,

*“Our research reveals that a vicious cycle fuels the persistent underfunding over overhead. The first step in the cycle is funders’ unrealistic expectations about how much it costs to run a non-profit. At the second step, non-profits feel pressure to conform to funders’ unrealistic expectations. At the third step, non-profits respond to this pressure in two ways: They spend too little on overhead, and they underreport their expenditure on tax forms and in fundraising materials. This under spending and underreporting in turn perpetuates funders’ unrealistic expectations. Over time, funders expect grantees to do more and more with less and less – a cycle that slowly starves non-profits.”*<sup>27</sup>

Given the chronic under spending on overhead, it is little wonder that social service organizations find themselves without many of the conditions required for moving along the R&D to innovation continuum, from idea generation to implementation. Indeed, historical reviews of successful social and education innovations suggest they are relatively rare events. Not only must the organizational and environmental climate engender deep creativity, but there must also be leadership that can move beyond problem solving to community mobilization. Professor Michael Mumford explains, *“After initial idea generation, [social innovation] leaders must ‘go outside themselves,’ using wisdom and perspective taking, to identify restrictions, often social restrictions on proposed solutions, likely reactions, and necessary revisions. This process of social refinement, in turn, provides a basis for planning and communication.”*<sup>28</sup>

<sup>24</sup> Kristin Stalker (2003). “Managing Risk and Uncertainty in Social Work.” *Journal of Social Work*, 3(2), pp.211-233.

<sup>25</sup> Scott Walsworth (2010). “What Do Unions Do to Innovation?” *Relations Industrielles*, 65(4): 543–561.

<sup>26</sup> Sarah Schulman (2010). *Better Together? A Comparative Study of Joined-up Policymaking.* Dissertation, Oxford University.

<sup>27</sup> Ann Gregory and John Howard (2009). “The Non-Profit Starvation Cycle.” *Stanford Social Innovation Review*, Fall 2009, p.50.

<sup>28</sup> Michael D. Mumford (2002). “Social Innovation: Ten Cases From Benjamin Franklin.” *Creativity Research Journal*, 14:2, 253-26, p.4.

# Chapter 4: Federal innovation tools

So, how do we make social innovation a more commonplace event? What kind of investments and supports might strengthen the capacity of social service organizations to *first* engage in social R&D and then implement emergent inventions?

This is the same question occupying Canada's top business thinkers. The Institute for Research on Public Policy makes the case that current policy approaches have failed to stimulate widespread innovation – in part, because traditional R&D investments, within large academic institutions, have failed to adequately incentivize business-led innovation. Innovation expert Dan Breznitz concurs, penning an editorial in the *The Global and Mail* to say that, “*Policy solutions need to be systematic and focused on companies or agents...By definition, innovation happens in the marketplace, and we need to equip, stimulate and support the companies and entrepreneurs who do it.*”<sup>29</sup>

Canada's Advisory Committee on Economic Growth takes up the policy challenge. Their 2017 report, *Unlocking Innovation*, proposes a range of interventions to strengthen the four pillars of a functioning eco-system: (1) talent, (2) capital, (3) connectivity, and (4) customers.<sup>30</sup> The 2017 federal budget responds in kind.

Despite the fact that the social sector has the same needs and, we would argue, faces greater structural challenges to doing R&D and innovation, there is neither the equivalent gap analysis nor policy response.

Talent. 53% of Canadian business leaders report that one of their primary challenges to innovation is finding experienced talent. Although Canada's higher education system

punches above its weight on the world stage, there aren't enough managers and leaders with a track record of translating research into concrete products and robust systems.

To address the talent gaps, the federal government has committed to attracting skilled international talent, reducing processing times for work permits, and increasing investment in workforce skill development. This includes \$221 million for work-integrated learning schemes through Mitacs and at least \$50 million for training within Science, Technology, Engineering, and Mathematics (STEM) fields.

Capital. Innovation is risky business. The success of novel, young companies comes down to the ability of entrepreneurs to attract the right kind of financial resources, at the right stage in their trajectory. Bank financing is typically out of bounds. Venture capital and growth capital fills an important gap – and not just a financial gap, but also a managerial gap. Good venture capital offers helpful business expertise, not merely dollars. Good venture capital is hard to come by in Canada. The majority of fast-growing companies in Canada named poor access to risk capital as their biggest concern.<sup>31</sup> While there are increasing dollars for initial seed funding, the expansion and growth capital markets remain underdeveloped.

To address the capital gap, the Federal government has promised greater access to expansion and growth capital, through the establishment of a matching fund and a growth fund. This includes \$400 million for a Venture Capital Catalyst Initiative and \$1.26 billion for a 5-year Strategic Innovation Fund. These new financial tools sit alongside industrial research grants



(IRAP) and Scientific Research and Expansion Development (SR&ED) tax credits. In 2014, the SR&ED program provided \$3.1 billion in tax credits to Canadian businesses engaged in basic, applied, and experimental research. To be eligible for the tax credits and IRAP's technology innovation grants, companies must be "incorporated and profit-oriented" and have an objective to "grow and generate profits."<sup>27</sup>

**Connectivity.** There is a real geographic dimension to innovation. The transmission of new knowledge happens more swiftly among closely located actors. That's because learning happens through networking, repeated interactions, and importantly, common norms and conventions for how to exchange and use knowledge to solve jointly recognized problems. The editors of the book *Clusters, Networks and Innovation* conclude that, "The way firms learn in innovative clusters embrace user-producer relationships, formal and informal collaborations, inter-firm mobility of skilled workers, spin-offs of new firms from existing firms, universities, and public research bodies."<sup>28</sup> And yet, in Canada, firms are not especially well connected to each other, to other start-ups, investors, public research bodies, or universities.

To address the connectivity gap, the federal

government has allocated \$950 million to set-up five superclusters in industries like advanced manufacturing, agri-food, and clean technology. Unlike government's financial incentives for industry innovation, superclusters can be inclusive of non-profits. Funding will flow to consortia of large anchor firms, smaller companies, colleges, universities, and related not-for-profits. In addition, the federal government runs the Business-led Networks of Centres of Excellence program (BL-NCE), which places research institutions and private sector firms on equal footing - even funding private firms to build in-house research facilities and spend time curating multi-sectoral collaborations.

**Customers.** Users are part of what separate novel inventions from successful innovations. Where an invention can exist on paper, an innovation must exist in the real world, with real users. Innovators, therefore, require access to a user base. Here again, Canada falls short of other international jurisdictions. Canadian corporations are not readily adopting new technologies or buying from newer firms.

To address the customer gap, there is growing emphasis on government as the first buyer of novel products and services. The 2017 budget sets aside \$50 million for procuring innovations.

<sup>29</sup> Dan Breznitz. (2016). "Canada's Innovation Agenda." *The Globe and Mail*, April 23.

<sup>30</sup> Advisory Council on Economic Growth. (2017). "Unlocking Innovation to Drive Scale & Growth." Published February 6, 2017.

<sup>31</sup> Ibid

<sup>32</sup> Retrieved from: [http://www.nrc-cnrc.gc.ca/eng/irap/services/youth\\_initiatives.html](http://www.nrc-cnrc.gc.ca/eng/irap/services/youth_initiatives.html)

<sup>33</sup> Stefano Breschi and Franco Malerba (2005). *Clusters, Networks, and Innovation*. Oxford University Press: Oxford.

# Chapter 5: Social sector exceptionalism

Talent, capital, connectivity, and customers are the same pillars of a thriving *social* R&D to innovation ecosystem. We would add ‘data’ as a fifth foundational element. And yet, the infrastructural and financial tools available for social services are strikingly bare. The bulk of Canada’s \$6.1 billion investment in innovation goes to the private sector; non-profits are not eligible for much of the new financing announced in the 2017 budget.

Non-profit service providers have not traditionally been conceptualized as innovation agents – let alone as the SME businesses and local economic engines that they are. While this is changing, we need to build collective understanding of how to smartly target dollars and supports to overcome the social sector’s antiquated starting point. The private and social sectors are not just at different starting points; they obviously have different end points. The aims and objectives of R&D are distinct. Maximizing profit is not the same as enabling social change. Where scaling-up innovations clearly advances a profit maximization agenda, we will argue that scaling deep can be more important for sustained social change. Scaling deep involves changing hearts, minds, and habits of implementors, users, and community. Rather than wholesale replication of private sector innovation mechanisms, we must thoughtfully adopt and adapt.

Talent. Given that social service organizations have long functioned as the delivery arms of the welfare state, it should not be surprising that talent is the real bottleneck. The sector not only lacks leaders and managers experienced in generating and exploiting R&D, it lacks entrepreneurial staff teams with the full palette of technical and creative skills - from developers to designers to marketers. And because cash compensation within the non-profit sector is lower than the for-profit sector, attracting and retaining this diverse talent base can be tough.

Where other jurisdictions have invested in non-profit workforce development programs like AmeriCorps and Code for America – swapping social status for remuneration – there are not yet national versions in Canada. AmeriCorps, for instance, places 80,000 students and retirees in non-profits and community organizations each year. AmeriCorps Fellows lend their skills to projects in exchange for student loan forgiveness, living stipends, training, and a vast job network.

We know of no overarching workforce development strategy for the Canadian non-profit sector. Such a strategy would explore the skills and mindsets required for social R&D. In our experience developing and now scaling Kudoz, social scientists, service designers, user experience designers, developers, and marketers are in high demand. These disciplines have never before been part of the hiring strategies of our service delivery partners. Over time, we’ve learned it’s not just about building R&D teams who can deliver social innovations; it’s also about building delivery teams who can do R&D. In other words, R&D competencies aren’t just needed to create new practices; they are needed to continuously deliver effective practices. A new kind of human service worker is called for – individuals trained to think critically, ask questions, try alternative practices, provide feedback, and take initiative.

Capital. Social services are contracted to deliver a preset volume of services and subscribe to an accountability framework antithetical to the emergent nature of innovation. Overhead or indirect costs are calculated with defined formulas and hard caps. Social innovation dollars are then layered on top of this starved foundation and have largely taken the form of program grants. Most of these grants fund implementation of an invention – say, an event, initiative, or pilot program – with limited recognition of what it takes to arrive at such an invention, or what it takes for that

	R&D — Invention		Innovation
Private sector	<ul style="list-style-type: none"> <li>• SR&amp;ED Tax Credits</li> <li>• IRAP Grants</li> <li>• Infrastructure Grants</li> </ul>	<ul style="list-style-type: none"> <li>• Prizes</li> <li>• Seed capital</li> </ul>	<ul style="list-style-type: none"> <li>• Growth venture capital</li> <li>• Matching funds</li> </ul>
Social sector		<ul style="list-style-type: none"> <li>• Program Innovation Grants</li> </ul>	<ul style="list-style-type: none"> <li>• Social Impact Bonds</li> </ul>
Academic sector	<ul style="list-style-type: none"> <li>• SSHRC Grants</li> </ul>		

**Table 1:4:** Funding Landscape for Private versus Social Sectors

invention to become an innovation capable of shifting patterns of social interaction.

**R&D Financing.** Indeed, there is not yet attentiveness to the types of capital best matched to the stage of the R&D to innovation continuum. Unlike in the private sector, where tax credits, intellectual property protections, and infrastructure grants incentivize applied and experimental research, there are no equivalent carrots in the social sector. Research dollars have largely flowed to intermediaries and to universities. In 2016, the Social Sciences and Humanities Research Council awarded \$353 million worth of grants, fellowships, and scholarships to professors, doctoral, and masters students. While these dollars have an important role to play in the pursuit of knowledge, there are few mechanisms for non-profits to set agendas or shape practice knowledge.

There are notable attempts to engage non-profits. SSHRC Connection Grants fund one-time knowledge mobilization initiatives like conferences and workshops. SSHRC partnership grants support multi-sectoral work to advance research and research training. Still, these dollars sit within universities, rather than within non-profits. Without shared accountability, academic interests can still outweigh those of the social sector.

If we want to shift on-the-ground outcomes, a pragmatic kind of R&D is needed. That is a kind of R&D situated in the everyday contexts of social service providers and users, where the product isn't theory, but practices that can be tried and revised. This necessitates new tools. Where private sector firms can access funding to build new research facilities and purchase equipment,

social service agencies need the same sort of funding to invest in collaborative spaces and communication technologies. It's less about bricks and mortar, and more about how to enable a workforce that is largely distributed in homes and communities to capture and iterate their practices.

**Invention Financing.** Many existing social innovation grants would be better titled invention grants. The focus on named deliverables makes them less suited for uncertain R&D processes, while the focus on short-term results makes them less suited for longer-term innovation strategies. Take, for example, the Innovative Solutions to Homelessness Grant Program. Although designed to fund innovative approaches, it is structured in ways that mean the dollars are less likely to function as intended. Here's why:

Incumbent bias. The standard application for funding asks for details on organizational capacity, experience, and expertise. Yet, the funding process is predicated entirely on written answers. Civil servants score responses using predetermined criteria. Not surprisingly, organizations that fare well on such scorecards are those with capacity and expertise applying for government funding. This kind of capacity and expertise should not be conflated for the kind required for innovation. Organizations well versed in jumping through funding hoops may be less likely to have an entrepreneurial orientation. Scoring criteria need to be able to differentiate between capacity for delivery and capacity for R&D, invention, and innovation. This is precisely why venture capitalists invest in 'due diligence' with on-the-ground interviews of leaders and teams before awarding

<sup>34</sup> Retrieved from: [http://www.sshrc-crsh.gc.ca/about-au\\_sujet/facts-faits/index-eng.aspx](http://www.sshrc-crsh.gc.ca/about-au_sujet/facts-faits/index-eng.aspx)

financing. As the Centre for Private Equity and Entrepreneurship notes, “Due diligence can be described as simply a process of getting answers to questions. The key is in asking the right questions that are open-ended and probing in nature. Continuing to “peel the onion” helps to get below the surface of the initial question.” (Tuck School of Business. 2004. “Note on Due Diligence in Venture Capital.” Case #5-0014)

Through due diligence, investors are assessing potentiality: whether the proposal is likely to

unlock future value. They gauge that by looking at the strength of the management team; at the team’s understanding of the target market; at how the service or product responds to a named problem; and at the feasibility of the business story. Were government innovation grants to use a similar due diligence process, written applications would be augmented with interviews and/or site visits. Criteria would hone in on team capacity - not simply organizational capacity - and ask for research about the target user group and the specific problem(s) that their intervention solves.

C. ORGANIZATIONAL CAPACITY	
35. How many employees does your organization currently have?	
36. Has your organization undergone any important transformations in the past two (2) years? *	<input type="checkbox"/> Yes <input type="checkbox"/> No
If 'Yes' please provide a description of the changes:	
37. Please describe how your organization has the experience and expertise to carry out the proposed project activities. If applicable, please include any past experience with ESDC and the results of the project *	

Asking about experience with R&D and innovation should be more important than experience with program delivery.

Program outputs. Existing government grants ask applicants to specify project objectives, detail their activities, list expected project results, and include results measurement indicators. Challenge is: the only way organizations can have comprehensive answers to these questions is if they have *already* developed their invention and are ready for delivery. By definition, Research & Development is a learning process. You don’t yet know what will emerge. All you know is your research questions, your methodology, and your feedback routines. Indeed, R&D starts with a problem – not with

a solution. Problem redefinition is often the deliverable. This is also true of innovation. Innovation is all about testing if solutions actually solve a problem for users, and building the underpinning systems and processes so they respond to real needs. Funding conducive to R&D, then, must be tied to *learning* milestones. That is, to the number and quality of insights gleaned from trial and error. Funding conducive to innovation, then, must be tied to *iteration* milestones. That is, to the number and quality of shifts in strategy, partnerships, and approach.

B. PROJECT DESCRIPTION
43. Project Objectives (must be clearly linked to the objectives of the program to which you are applying). *

Asking about research questions and the inquiry process is more important than asking about specific program plans & objectives.

Project funding. Budget submissions in grant proposals must link to pre-set project activities that will likely need to change. Indirect or overhead costs are discouraged, preventing organizations from building permanent organizational capacity for R&D and innovation. They may bring on board expertise for the duration of single project – say a researcher or evaluator - but this resource is rarely internalized. Knowhow is easily lost from project to project. Because R&D is really a long-term game, the stop-and-start nature of project funding significantly lowers the likelihood of eventual return on investment. Imagine if funding for cancer research, for instance, was relegated to a one-off grant cycle, where work stopped at the end of the financial year, waited for the next call for proposals, and expert research teams were let go in the meantime. This is the dominant experience of social service organizations wanting to move from delivery to delivery & development.

Short timeframes. Government granting processes move slowly. Organizations may be asked to turn around an application in 6-weeks, but are waiting 6-months or more for decisions. Once decisions are communicated, organizations are often asked to deliver results by the end of the financial year. Truncated timeframes defeat the purpose of both R&D and innovation, which are grounded in repeated inquiry, testing, and refinement. Realistically, the only way organizations can deliver results in such a timeframe is to roll out an existing program, or a variant of what already exists.

Breakthrough inventions or transformative innovations are extremely unlikely to emerge from such quick funding.

Process expertise. Government reviewers of innovation grants are the same reviewers of service delivery grants. While civil servants are well versed in bureaucratic processes, they are not content experts with the ability to adjudicate the merits of particular research methodologies or innovation approaches. Nor are they steeped in climates where risk taking is encouraged and incentivized. We can liken government's risk orientation to banks. Banks unwillingness to finance emergent innovations is precisely why venture capitalists are such a critical part of the innovation ecosystem. Venture capitalists are typically entrepreneurs themselves, with a different decision-making calculus than your average banker. Until social innovation grant review processes deploy a different decision-making calculus, they are unlikely to see different results. R&D and innovation simply isn't something that can be understood on paper, in the abstract. It requires being steeped in the culture, in the flesh.

### **Innovation Financing**

Alongside social innovation (or rather, invention) grants, a new financing tool has entered the Canadian parlance: social impact bonds. Social impact bonds are pitched at the innovation end of the development continuum, designed to enable growth and scale of effective inventions. Private and

public investors agree to pay for a set of inventions, over a longer-term period. If social outcomes move in the right direction, the government commissioner pays back investors for their initial stake plus a return for the financial risk they took. Trouble is: to be included in a social impact bond, an invention must be well-tested and evidenced. Given the longstanding underinvestment in social sector R&D capacity, there is not yet a robust queue of potentially transformative inventions. Even in other jurisdictions where the social innovation landscape is more mature, the inventions included in social impact bonds are actually old – not new. In order to amass enough evidence of likely impact, inventions must have a track record. That relegates early stage R&D and invention to the margins. This is not inherently problematic, provided there is healthy investment in early stage R&D and invention.

What is more inherently problematic is the conflation of innovation and scale. Social impact bonds take an invention that has demonstrably worked in one context, and provide the growth capital to scale that invention up to many more people. The focus is on replicating and enlarging the invention. Innovation can become about how many people adopt the invention – rather than how well the values, principles, and iterative processes permeate a community. Where scaling up refers to reach, scaling deep refers to resonance, to shifts in hearts and minds, routines and practices. They are not mutually exclusive. But, to get to deep scale requires replicating the process by which an invention is made.

For example, much of what makes Kudoz an impactful invention is the ongoing co-design process. End users are constantly re-engaged to provide feedback and tweak component parts. This contributes to a sense of agency and efficacy, which is hard to disentangle from the effects of the platform itself. Were you to scale the Kudoz platform (the invention) without the underlying co-design process (the R&D), we think it is unlikely you would see the same effects or effect sizes. To spread the underlying co-design process means replicating the partnership structure

and team routines that facilitate continuous prototyping. It also means letting go of sameness and consistency. The model for social scale shouldn't be McDonald's or the iPod, but rather, Hospice. Hospice has spread internationally as a set of values, principles, and locally defined practices. That means dollars must not only flow to the 'thing' – Hospice care – but to ongoing community driven processes that shape attitudes of death and dying.

Connectivity. We know that multi-sectoral collaborations can lead to disruptive innovations, but only where industry & academic partners share power and the costs of coordination are minimized. This is the rationale for the supercluster strategy announced in the 2016 and 2017 budgets. Although a similar language of collaboration pervades the social sector, contractual realities perpetuate an individualistic landscape. Because social service providers bid for the same pots of money, and are contracted to deliver the same services, it's hard for organizations to occupy a unique niche. That often turns organizations into direct competitors, rather than complementary partners. Even where multiple organizations apply as a partnership to government for dollars, contracts and accountabilities flow to individual organizations. This substantially increases the volume of paperwork, and the amount of resources that must go to fulfilling reporting requirements.

Collective Impact initiatives are designed to reduce the administrative complexities of collaboration. These are initiatives that bring together community organizations under a common outcomes framework, supported by a backbone infrastructure. Backbone infrastructures can facilitate better coordination, but should not be confused as R&D infrastructure. Coordinating existing programs and services is different from producing novel solutions. Indeed, a coordinator is a very different kind of human resource from an innovator. Instead of aligning diverse organizational interests, the innovator re-aligns systems and user interests. That demands a user-centered



design methodology over and above convening stakeholders.

Customers. For social service providers, end users and paying customers are two separate groups. Take Kudoz. Its end users are adults living with cognitive disabilities. Its paying customer is the provincial government agency responsible for community living. This bifurcation adds complexity to the R&D to innovation cycle. In order to unlock value for both end users and paying customers, development teams must understand their differential needs and shift relationships between the two. Where private firms need paying customers, social sector organizations need ways to shape how their paying customers (generally, government) understand their end users. This points to a different contractual relationship between funders and social organizations, one that is based on mutual learning and prototyping versus accountability and oversight.

Data. Part of what propels research to invention to innovation is data driven insights. Big data has changed how firms spot trends, make sense of user behavior, and pinpoint value creation opportunities. Think about how GPS technology, for instance, can reveal user locations and make possible a seemingly endless array of new inventions and value propositions – from Google maps

to Uber to localized news. Social service organizations, by contrast, know very little about their users' lives. Data collection and data quality is poor. Much of the data stagnates in paper files. The drop-in centre where Dustin goes and Linda works has clunky, outdated software with limited analytic functions. Data goes up the line to funders, but is never reported down the line to influence practice. And because many end users like Dustin don't have credit cards, bank accounts, or data-enabled phones, they are generally on the margins of big datasets too.

A different kind of data could have real intelligence value. This is a type of data rich with detail and nuance, offering information about users' motivations, habits, and preferences. This is a data called small or thick data. It is collected using ethnographic techniques, meaning through observation, shadowing, and interviews. Increasingly, private sector companies like Lego and Disney are investing in small data to develop more relevant business strategies that reflect user needs & aspirations.<sup>35</sup> There has been no concerted investment in the data capability of social service organizations. Nor are there clear funding sources available for organizations to upgrade their hardware & software, up-skill their staff to collect and analyze quality data, or use that data to develop measurably better services.

<sup>35</sup> Martin Lindstrom (2016). *Small Data: The Tiny Clues That Uncover Huge Trends*. St. Martin's Press: New York.

# Chapter 6: What could be

Linda and Dustin are stuck in entrenched roles and behavioral patterns. Linda is the frontline worker there to call 911 when Dustin is unresponsive after a heavy afternoon of drinking. Dustin is the client there to find entertainment and community. Over the past 30 years Dustin has played his client role while pilot projects and novel initiatives have come and go.

Were social services to shift from deliverers to developers, with capacity to do R&D, Linda and Dustin might shift roles. As embedded researchers, they might join with designers, developers, and addiction experts to share their observations, identify patterns, and generate fresh practices to try. Practice would no longer be an unexamined black box. Instead, constructive critique and critical inquiry would be the norm, reflecting a culture of learning versus accountability. Constant iteration would just become part of the ethic of care.

Such a scenario is not as idealistic as it may sound. Alt School, a Palo Alto start-up, is reinventing school by building continuous R&D into its delivery model--literally. Its two story buildings feature collaborative learning spaces on the first floor, and research labs on the second floor. Designers, developers, engineers, marketers, and education professors work alongside teachers and students. But, teachers and students do not have static or traditional roles. They are co-researchers and inventors, and with the help of technical experts, empowered to leverage their learning & teaching experiences to develop new tools, interactions, and

pedagogical processes. Practice is firmly rooted in day-to-day evidence, and enabled by both a rich social learning community and resource flexibility. Of course, it helps that there are significant resources at play. Thanks to \$100 million in venture capital funding, Alt School has been able to grow and adapt its model to other contexts. And unlike social welfare services, Alt School benefits from a cross-subsidy model, whereby it attracts a group of users (wealthy parents) accustomed to paying for premium education products.

Still, there is much to apply from the Alt School model to social services. If Canada wants strong social and economic growth, then industry-focused innovation policy must be coupled with social-sector-focused innovation policy. This would be policy oriented towards social infrastructure, not social projects. By social infrastructure, we do not just mean buildings and equipment. We mean the human resources, data, communication channels, and social networks that underpin deliberative disruption and renewal. In their research on local innovation failure, Professors Cornelia Flora and Jan Flora conclude that, *“The distressing aspect of our community research is how little entrepreneurial social infrastructure exists. The hopeful aspect of the research is that communities that try to develop it are able to so.”*<sup>36</sup>

We have reason to be hopeful. Over the past three years, we have witnessed three competitor community living agencies in British Columbia pool resources and

<sup>36</sup> Cornelia Butler Flora and Jan Flora (1993). “Entrepreneurial Social Infrastructure: A Necessary Ingredient.” *The Annals of the American Academy of Political and Social Science*, 529: 48, p. 51.

risks, and start constructing shared R&D infrastructure. Why would competitors come together? R&D alliances are not new. In 1982, the Microelectronics and Computer Technology Corporation (MCC) formed in the United States to cogently address an external threat: growing global competition. Over its first 10 years, MCC brought together 100 companies, including 18 competing small businesses and 12 universities, and spent \$500+ million of its pooled funds, about 20% of which came from government. A team of 340 researchers staffed the collective, resulting in 117 patents and 182 new licensed technologies.<sup>37</sup>

Our fledgling social R&D collective has less than .001% of the resources of the MCC, but has similarly formed to address an external threat: social isolation, loneliness, and stagnation amongst marginalized adults. This suggests a compelling way forward: subsidizing membership-based collectives of social service providers, academics, designers, and technologists to address external social wellbeing threats. This would be the equivalent of superclusters, but for the social sector. Together, a collective invests in relevant data, hires teams capable of the R&D to innovation continuum, and sustains the cultural conditions for experimentation. Collectives could be geographically based, or formed around a commonly felt challenge. A network of collectives could ensure robust practice sharing.

Collectives would share a set of defining features:

- > *Practitioner steered.* End users, frontline workers and managers are the linchpins of change. Without their buy-in and adoption, little will shift. Rather than situate collectives in the ivory tower, they must sit within and shape everyday contexts. Practice must drive problem identification, research questions, idea generation, and the design of alternatives.
- > *Boundary spanning.* Social service providers are context experts, but

not methodology experts. They have little exposure to research, design, and prototyping. Collectives, then, would bring together social organizations with academics, entrepreneurs, and designers within a new relational framework. Indeed, the professional, organizational, and political dimensions of change must sit alongside the social science perspective of experts and the making proclivities of designers, developers, and engineers. As Bryk and Gomez point out, in reference to the education sector, “*This type of collaboration in education is difficult to create and sustain because no existing institution provides an especially hospitable home for such boundary-spanning activities.*”<sup>38</sup> The same is true in the social services sector, necessitating the collective structure.

- > *Multi-level and multi-stage.* There is an inherent tension between R&D focused on improving existing social services, and R&D focused on forging new social relationships & supports. Where the former results in quicker wins for systems, the latter is more likely to shift entrenched social outcomes. Collectives need to advance both incremental and radical reforms, making social services better whilst re-inventing what social services mean. Rather than assume that professional-led services are the delivery models of the future, more ambitious R&D agendas would re-imagine how professionals, families, and community members interact. To do all of this, collectives would work across the stages of the R&D to innovation continuum. That looks like balancing broad inquiry processes with the invention of new social practices and then re-negotiating HR and resourcing systems to enable take-up. Instead of a single-minded focus on scale, collectives would help their member organizations edit inventions for their own contexts and replicate the conditions required for meaningful change.

<sup>37</sup> “R&D Consortia: Cooperative Competitors.” (2016). Retrieved from: <https://nintil.com/2016/>

<sup>38</sup> Anthony Bryk and Louis Gomez. (2008). “Ruminations on Reinventing an R&D Capacity for Educational Improvement. Prepared for the American Enterprise Institute Conference, p.22

## Talent

Given that the federal government has already committed \$221 million to expanding Mitacs fellowships between academic institutions and industry, allocating a fraction of those dollars for fellowships between academic institutions and non-profits is low-hanging fruit. Fellowships could match the differential skillsets required for research, invention, and innovation, enabling organizations to increase their technical know-how, generative skills, and collaborative chops. Non-profits, unaccustomed to managing creative talent, will need help to utilize this kind of resource. Plus, retaining high quality talent in the lower paying social sector requires increasing the status of such work. Canada should pursue the AmeriCorps model and create a bold brand and brokerage platform between students, retirees, and social organizations. At a cost of about \$15K per fellow, allocating just 10% of the United States' 2016 Americorps budget (\$425 million), would result in nearly 2800 Canadian fellows. Social organizations could apply for fellows based on their HR needs, gain access to a much wider talent pool, and receive coaching to make use of these new flavors of talent.

## Capital

Existing social innovation grants come too late in the R&D cycle. Grant reviewers, used to scoring applicants for service delivery, are looking at program outputs, rather than learning outputs. Form is prioritized over function. The Opportunity Fund for Persons with Disabilities, for instance, helpfully offers dollars for social innovation. But, those dollars must be directed to three pre-specified structural and financial forms: partnerships, social enterprises, or pay-for-performance. The focus is still on service delivery using those forms, rather than on the development and testing of new forms and functions. Appointing external innovation experts as reviewers is a relatively small-scale intervention that could help differentiate service delivery proposals from proposals with real R&D potential.

Adopting and adapting the private sectors

due diligence process would also help. Rather than rely on the written word, teams of external reviewers could spend time with applicants, gaining a feel for their team capacity and culture. As venture capitalists know, the only thing certain is that the project proposal will change. Instead of putting so much stock in the written plan, reviewers must have confidence in the team's ability to pivot and iterate. Tomasz Tunguz, a partner at venture capital firm Redpoint, publishes a blog with insights into their investment decisions. The questions they ask could directly be used by government funders. For instance: (1) how do the team members know and interact with each other? (2) can they articulate their value proposition simply and explain exactly what makes them different? (3) what are their user segments, channels of distribution, key activities, partners, and cost structure? (4) what secret, what insight, has the founding team made that the rest of the market hasn't yet realized? (footnote: <http://tomtunguz.com/breaking-down-a-typical-vcstartup-diligence-process/>)

Of course, because of the social sector's historic charity model, organizations will need assistance to adopt such market-oriented thinking. Market-oriented thinking is not simply about making a profit: it's about specifying the fit between the user, the problem, the product or service, and the competitive landscape. Here's where capacity-building grants can be useful. Organizations apply for technical assistance to shift their thinking and practices, and then are invited for next round funding based on the strength of their engagement in the learning process. We recommend setting-up technical assistance funds in priority topic areas -- like social isolation, drug addiction, and unemployment - just as the United States government has done around poverty and juvenile justice.

For example, from 2002-2006, the U.S. Office of Administration for Children and Families dispersed \$232 million dollars as part of the Compassion Capital Fund. Grassroots organizations were invited to apply for support services and operational dollars to "enhance their ability to provide effective

services to low-income individuals.” Service improvement, rather than innovation, was the focus of the fund. About 75% of the dollars flowed to intermediary organizations to provide a mix of group training, 1:1 coaching, and bespoke resources to those grassroots organizations. About 20% flowed directly to grassroots organizations in the form of mini-grants (\$50-100K for anything but direct services). 5% went towards evaluation. The fund was rigorously assessed. Researchers conducted a random assignment evaluation, following organizations before and after participation in the capital fund. Results show that non-profits that received capacity building services experienced “significantly higher levels of growth” in all five outcome areas - organizational development, program development, revenue development, leadership development, and community engagement - than organizations assigned to the control group. (Footnote: Abt Associates, 2010, “Building nonprofit capacity: Results from the Compassion Capital Fund.”)

Employment and Social Development Canada can tweak this model, and turn the focus explicitly to innovation. How? By creating a new granting stream, launched with a call out for regional technical assistance organizations. These intermediary organizations should have expertise in both priority topic areas (e.g addiction, inclusion) and R&D-to-innovation techniques (e.g co-design and prototyping). That means they will need to be interdisciplinary consortia of content experts, researchers, designers, behavioural scientists, entrepreneurs, and evaluators.

Once a technical assistance infrastructure is in place, grassroots community groups and non-profit organizations can apply for multi-year support and gain access to dollars to specifically augment their operational capacity. Organizations who have demonstrably increased their capacity would then receive invitations to apply for program dollars. Under such a model, capacity dollars and program dollars would be treated separately, and learning outputs would be distinguished from delivery outputs.

## Connections

Collaboration can facilitate innovation, but only where coordination costs are minimized. Government can help reduce some of these costs by making it easier for groups of organizations to apply for and receive funding. Right now, organizations that jointly bid for a piece of work are individually contracted, amplifying the administrative burdens and unhelpfully increasing monitoring and oversight. A new kind of joint contract would underscore the importance of nimble governance for R&D. Government can also increase access to collaborative platforms, tools, and technologies. Grantees could receive complimentary access to a suite of communication, project management, and research tools standard to most private sector teams (e.g Slack and Basecamp). Simon Fraser University’s Community Scholar Program could be a helpful model. Under this program, non-profits gain full access to the university’s digital and physical libraries. Non-profit staff can also attend free workshops to learn how to search for and use research findings.

Searching for existing research and doing original research are distinct activities. To really address the structural barriers non-profits face to doing R&D, new institutional types are needed. The federal government should incentivize social services and grassroots community organizations coming together, as smaller collectives, to pool risks and resources for ongoing experimentation. This is an established model in the private sector. Ideo, the world’s largest design consultancy, runs a membership platform where businesses in emergent industries pay a yearly fee to develop new products and services ready for market. In Canada, the federal government allocates \$12 million a year for a business-led centre of excellence, which performs a similar function: accelerating the transfer of inventions from the lab into innovations in the field.

The social sector needs an equivalent. More specifically, government could do two things to facilitate this kind of sustained social R&D: (1) set-up a practitioner-led



When R&D infrastructure underpins social services, teams of end users, frontline staff, managers, designers, and researchers are identifying problems, trying practices, and shifting systems. This isn't a one-time event. This is part of everyday business.

centre of excellence with at least \$12 million in annual funding (2) match-fund or subsidize organization's membership fees into innovation collectives. A practitioner-led centre of excellence, arms length of government, would help social sector organizations form collectives around tough social challenges; provide research, ideation, and prototyping support; and exchange learning between collectives. Such a learning exchange would facilitate the scaling deep and scaling out of promising inventions.

### **Data**

Innovations come from fresh intelligence. Too many social organizations operate in the dark, without quality data and without the capabilities to act on that data. The federal government can ensure its grantees have access to data literacy workshops, as well as to analytic tools that comply with Canadian data privacy standards. Accountability

frameworks can focus on the actions taken as a result of data, rather than the data itself.

Of course, the more fundamental challenge in the social sector is the dearth of meaningful data. Little is regularly collected with and for people on the margins. To understand motivations, behaviours, and service utilization patterns, new data collection methods are required. We need a Statscan equivalent, but for qualitative data. If there was appetite to be bold, the federal government could redirect \$6 million a year in traditional research funding to a national small data network: that is, on-the-ground researchers, embedded in social services and communities, who use a common reporting framework and database to gather rich profiles of people's service experiences and life outcomes. This data could not only help drive practice improvements, but could also help to evidence social policy shifts.

# Chapter 7: Recommendations

One hundred years ago, most social service organizations were steeped in a charity model. One hundred years from today, what will it take for most social service organizations to function as R&D engines? While the federal government is only one actor in the R&D landscape, we know from other jurisdictions like Israel and the United Kingdom that it can play an outsized role in building innovation capacity and catalyzing

investment. For the Canadian federal government to play that role in the social sector, it must move beyond innovation project funding to strategic investments in social R&D infrastructure. That looks similar to its investment in business R&D infrastructure – including stimulating new forms of capital, connectivity, talent, and data. Here are ten steps the government could take:

	<b>Smaller acts</b>	<b>Bigger acts</b>
Talent	(1) Expand Mitacs for non-profits	(2) Develop CanadaCorps, the AmeriCorps equivalent
Capital	(3) Set-up a ‘due diligence’ process for innovation grants; update granting criteria	(4) Implement a two-staged innovation grants stream, where technical assistance centres & capacity grants precede program grants
Connections	(5) Allow for collaborative contracting  (6) Give social service organizations access to collaborative research tools, including access to peer-reviewed journals <sup>39</sup>	(7) Provide match funding and subsidies for non-profits to join innovation collectives  (8) Allocate \$12 million/year for a practitioner-led innovation centre of excellence, arms length from government
Data	(9) Offer data literacy training and tools that comply with privacy standards	(10) Build a national small data network by re-allocating at least \$6 million in annual research dollars

**Table 1.5:** Summary of Recommendations

<sup>39</sup> See the Community Scholar Program at SFU as an example: <http://www.lib.sfu.ca/about/overview/services-you/community-scholars/sfu-news-april-2016>

# Closing Thoughts

Implementing these ten recommendations requires re-conceptualizing performance, accountability, and parity. Since New Public Management thinking took hold in the 1980s, the public sector has embraced the language of results-based measurement and performance management. There is ever-growing recognition that what results are measured and what constitutes performance matters. Outcomes have won the proverbial popularity contest. But, there is a rub. To engage in R&D, social services will need to know that trying, failing, and learning is as important as meeting a static numerical target.

Dustin offers us a germane lesson. The push for outcomes based measurement put pressure on his caseworkers to find him a home. Number of placements was the outcome they were contracted to deliver. But, the only home that his caseworkers could find was outside the neighborhood in which he was comfortable. And so, Dustin rarely slept in his home. Proximity to his social network was more important than a roof over his head. Had his workers been responsible for delivering learning, they might have first understood his needs and then prototyped practices that kept him (and others like him) connected, healthy, and drawing less on expensive services.

The kinds of supports that work for Dustin in downtown Toronto are unlikely to be the same as those that work for an individual in a different context, with a different set of motivations and preferences. While

federal policy must be national in scope that should not translate to geographic sameness. Sameness is not fairness. Rather than contracting for the same services with the same targets, a fair national social policy would invest in building equivalent community capacities to design, implement, and iterate interventions. More critical than ensuring every community has a drop-in centre, then, is ensuring every community has organizations with access to the talent, data, connections, and capital they need to continuously develop and deliver the right kinds of supports.

It's time for R&D infrastructure to be national infrastructure.

National infrastructure is within the federal government's remit. The 2017 budget included \$180 billion for transit, housing, community centres, parks, museums, and Internet. Internet has only recently been included within the definition of infrastructure; it is now widely recognized as key to our social connectivity. Also key to our social connectivity is the strength of Canada's social sector to engage in local problem solving and solution finding.

On the eve of the country's 150th anniversary, it is only apropos to renew the social contract. This would be a social contract where our welfare isn't just advanced through the static provision of pensions, benefits and services, but through the ongoing development of relationships and capabilities.



