Paradigm shift: A call for integrated innovation
“Innovation applied to a wicked problem can realize an enormous amount of social and economic value by setting new commercial standards, creating new businesses, and generating new sources of value...

For a country that aspires to become an Innovation Nation, the search for opportunities to do good and still do well will allow it to exercise its innovation muscle.”

- John Kao, author of *Innovation Nation*
Introduction to this presentation

TWO IMAGES:

CURRENT PARADIGM || DESTINATION PARADIGM
Problem: Status quo is not sustainable

CURRENT PARADIGM

Innovation is critical to a nation’s economic success.

Innovation trickles down to create social wellbeing.
Current problems ➔ Current paradigm

As the world turns...

- The New York Stock Exchange has taken another dive!
- London’s exchange has sunk!
- Moscow is in the tank!
- Tokyo’s in a tailspin!
- Frankfurt is falling!
- Bombay’s exchange is bad!
- Indonesia is worse!
- Paris is panicked!

The world is on fire!
Fort McMurray Wildfire

483,084 hectares
Size of the fire
Equivalent to all of Toronto or Vancouver

90,000+
Number of evacuees

2,400
Approximation of structures burned

$9-billion+
Est. insurance losses

$80-million
Raised by Red Cross in 10 dyas

Data from May 19, 2016
Opportunity: Integrated innovation

**Innovation** is a collective, cross-sector responsibility and opportunity to have a profound impact on people’s lives

**HOW TO UNLEASH?**

Weave STEM, business and social innovation

= Integrated Innovation
I think what connects the challenge for business, the challenge for government and the challenge for communities now, is both simple and difficult.

We know our societies have to radically change.

We know we can’t go back to where we were before.

Geoff Mulgan
Chief Executive, NESTA
The Innovation Revolution
When we hear ‘innovation’ what do we imagine?
When we hear ‘innovation’ what do we imagine?
Innovation Effect: Economic Growth

From 1948 to 2010:

23% of total US economic growth was generated by innovation.¹

The Rise of STEM: Early Labs

Thomas Edison Lab (US) 1876
- 1\textsuperscript{st} industrial Lab
- 1\textsuperscript{st} institution set up to produce tech innovation

Alexander Graham Bell Lab (US) 1880
- Focused on R&D of telecommunications, phonograph etc

Long Ashton Research Station (UK) 1903
- Studied & improved West Country cider industry
- Expanded into fruit research
The Rise of STEM: Early Labs

DARPA (US) 1958
- Created in response to Sputnik 1
- Formulates and executes R&D projects to expand the frontiers of tech and science
- Strives to reach beyond immediate military requirements

Palo Alto Research Center (US) 1970
- Part of Xerox
- Responsible for such developments as laser printing, Ethernet, GUI etc
Antecedent to social innovation

Muller lab?
In April 1881 he succeeded Lotze's position at Göttingen as privatdozent and established one of the first few experimental psychology laboratories in the world.
STEM in 2016: “Innovation Heroes”
A cautionary tale

Kodak History of Innovation
1900 – Brownie camera launches priced at $1
1978 – 1st digital camera patented by Kodak

The Fall of Kodak
1989 – Kodak prototype digital camera ready to go to market
1989 – FUJI brings digital camera to commercialization
1994 – Apple launches QuickTake, produced by Kodak, but Kodak stands by film cameras
• 2004 – Kodak kills sales of traditional film cameras
2012 – Kodak files for bankruptcy

Lessons from Kodak
- **Complacency**: no incentive to change
- **Feedback Loops**: $ on R&D, but little input from employees
- **Future Foresight**: could not imagine a world without film + patents ran out in 2007
Cinderella has a Fairy Godmother

What Makes the iPhone so Smart?

Figure 13 from The Entrepreneurial State: debunking public vs. private sector myths (2015, p. 116)

GOVERNMENT FUNDING BACKED CORE ELEMENTS OF INNOVATION
Ambiguous Force for Good

“Expanding Internet access could Create another **140 million new jobs** Lift **160 million people out of poverty**, and Reduce child mortality...”
Ambiguous Force for Good

THE UPSHOT | Can Technology Save the World? Experts Disagree

Peter Thiel, an investor and co-founder of PayPal, took the most pragmatic view of the promise of tech.

“Technology is necessary but not sufficient to save the world,” he said. “What technology really means is the ability to do more with less, or else we will run into resource constraints and everything grinds to a halt.”

Mr. Thiel’s take might not sound so starry-eyed, but it’s a point of view with which I bet the founders of Google, Facebook and Microsoft would all agree.

The Upshot provides news, analysis and graphics about politics, policy and everyday life. Follow us on Facebook and Twitter.
“...the right **emergent strategy** for making progress is to pursue simultaneously **many different partial solutions**, while searching for **synergies** among these.”

David Pines
Distinguished Professor of Physics, UC Davis
Chief Evangelist, ICAM
Looking for synergies: a whole systems approach

“We can’t impose our will on a system. We can listen to what the system tells us, and discover how its properties and our values can work together to bring forth something much better than could ever be produced by our will alone.”

– Donella H. Meadows, Dancing With Systems
Looking for synergies: a whole systems approach

System Leverage Points

1. The power to transcend paradigms
2. The mindset or paradigm out of which the system arises
3. The goals of the system
4. The power to add, change, evolve, or self-organize system structure
5. The rules of the system (such as incentives, punishments, constraints)
6. The structure of information flows (who does and doesn’t have access to information)
7. The gain around driving positive feedback loops
8. The strength of negative feedback loops
9. The lengths of delays, relative to the rate of system change
10. The structure of material stocks and flows
11. The sizes of buffers and other stabilizing stocks
12. Constants, parameters, numbers

SYSTEM

GRATEFULLY BORROWED FROM THE INTERACTION INSTITUTE FOR SOCIAL CHANGE (ref: Donella Meadows)
Application: Smart Cities Example

From:
Rethinking Smart Cities From The Ground Up by Nesta + Intel + UNDP (2015)

Some of the smart city ideas took a wrong turn:

- $$$ hardware rather than cheaper solutions using the internet
- technologically interesting ideas rather than responding to citizen’s real needs
- Over–inflated promises that couldn’t be supported by hard evidence

That’s why the smart city movement is now turning in a rather different direction.

COMBINING best of new generations of technology that can use data, to co–ordinate, analyse and target, while also involving citizens much more closely in shaping how cities can work.

AS IN MANY OTHER FIELDS, TECHNOLOGICAL INNOVATION IS BEING COMBINED WITH SOCIAL INNOVATION AND AS A RESULT ACHIEVING A LOT MORE.

- Geoff Mulgan, Chief Executive, Nesta
The Rise of Social Innovation
Social Innovation
It’s Canadian nature

RDSP
world’s first savings plan for people with disabilities

Great Bear Rainforest
world’s first large scale integrated conservation initiative

JUMP Math
non-hierachical confidence based learning

Palliative Care
improved quality of life for people with life limiting illness

Multi-national UN Force
peace keeping

Medicare
universal healthcare

Roots of Empathy
emotional literacy

Women’s Institute
first global women’s advocacy network

Produced by Social Innovation Generation | www.sigeneration.ca | @sigeneration
This is a living document. Comments are encouraged
The rise of social innovation

**BCE - 1800**
Social Innovation: Human Ingenuity and Philosophy

**1800 - 1960**
Social Innovation: Evolving, but Invisible Concept

**1960 - 2000**
Social Innovation: Emerging Field Characterized by Movements

**2000 - Present**
Rise of the Social Innovator & Links to System Change
The rise of social innovation: the fabric of Canada

BCE - 1800
Social Innovation: Human Ingenuity and Philosophy

1800- 1960
Social Innovation: Evolving, but Invisible Concept

1960 - 2000
Social Innovation: Emerging Field Characterized by Movements

2000 - Present
Rise of the Social Innovator & Links to System Change
Social innovation occurs in all sectors

- Citizens / Passionate amateurs
- Social benefit & philanthropic sector
- Public sector (& academia)
- Private sector

Social Innovation
Definitions of social innovation

Any initiative (product, process, program, projects or platform) that challenges and, overtime, contributes to change the defining routines, resource and authority flows or beliefs of the broader social system in which it is introduced. Successful social innovations have durability, scale and transformative impact – Frances Westley

Good ideas that, when implemented, create large scale value – Tim Brodhead

The process of designing, developing and growing new ideas that work to meet pressing unmet needs – Social Innovation Exchange

New ideas that resolve existing social, cultural, economic and environmental challenges for the benefit of people and planet – Centre for Social Innovation

Seeing things differently and imagining that which could be. It is about asking questions of ourselves and our institutions and wondering whether we can do better – BC Social Innovation Council

Innovations that are both social in their ends and in their means...simultaneously meet social needs & create new social relationships and collaborations – Open Book of S.I.

New ideas that meet unmet needs – Geoff Mulgan
Definitions of social innovation

New ideas that meet social needs, create social relationships and form new collaborations.

These innovations can be products, services or models addressing unmet needs more effectively.

The European Commission's objective is to encourage market uptake of innovative solutions and stimulate employment.

- European Commission
SiG’s definition of social innovation

IN THE CONTEXT OF CHANGING THE SYSTEM DYNAMICS THAT CREATED THE PROBLEM IN THE FIRST PLACE...

A SOCIAL INNOVATION IS:

Any initiative (product, process, program, project, principles, platform or policies) that challenges and, over time, contributes to positively changing the defining routines, resource and authority flows or beliefs of the broader social system in which it is introduced.
What does social innovation look like?

Social innovations address complex
REGULATORY • LEGAL
SOCIAL • TECHNICAL
ECONOMIC
norms and systems
behind our most
entrenched
problems

“Medicine Hat becomes the first city in
Canada to eliminate homelessness”

Thursday May 14, 2015

One home at a time
How to cut the number of street
dwellers – and save money, too.
Expressions of social innovation

Social innovation manifests in a variety of ways

**SOCIAL FINANCE**: new resources...

**SOCIAL ENTERPRISE**: new shared value business models...

**SOCIAL INNOVATION LABS**: new cross-sector collaborative processes...

**SOCIAL ENTREPRENEURSHIP**: new innovation leadership...

**SOCIAL TECHNOLOGY**: new deployment of tech....

**SOCIAL INTRAPRENEURS**: new in-house innovation leadership.

...for INCLUSIVE GROWTH and SOCIAL OUTCOMES
Social finance

A vital tool for:

• Prototyping, deploying & scaling social innovation

• Enabling a paradigm shift to **multi-stakeholder, cross-sector** solutions

**What looms as the most impressive "truth" of all is the enormity of the opportunity we have to improve our world by leveraging the aspiration of investors...to deploy their capital for greater social impact. Time to get to work.**

— Paul Carttar, Senior Advisor
Bridgespan Group
Social finance aims to leverage existing capital to attract new investment for public benefit, **at a scale** that neither purely philanthropic supports nor traditional investment alone can reach.
so‌cial fi‌nance

**Synonym:** IMPACT INVESTING

**IMPACT INVESTING**

*Impact investing refers to investments that provide solutions to social or environmental challenges by generating positive, measurable social or environmental impacts as well as a financial return.*

- RIA’s 2015 Canadian Responsible Investment Trends Report
“While there is not enough money in foundation and government coffers to meet the defining tests of our time, there is enough money.

It’s just locked up in private investments.”

- Judith Rodin, President of the Rockefeller Foundation
Emilia Model

“Refers to the Emilia Romagna’s diverse entrepreneurial structure, and its systems for supporting co-operative relations among small firms in local production systems serving global markets” – John Restakis

• Of Italy’s 43,000 co-operatives, 15,000 are located in Emilia Romagna.
• One of Europe’s most concentrated co-operative sectors.
• Co-operatives account for over 40% of region’s GDP.

System Supports:
• Collaboration with Government to create sector-specific strategies to grow firms
• The model of co-operative organizations provides shared services including:
  • R&D
  • Education, training, and environmental regulations
  • Marketing and distribution
  • Financing and help for all firms to compete in the global marketplace
Mondragon the Social Innovation

Mondragon is one of the leading Spanish business groups, integrated by autonomous and independent cooperatives with production subsidiaries and corporate offices in 41 countries and sales in more than 150.

- 11.875 million in total revenue
- 260 businesses and cooperatives
- 74,117 employees
- 15 technology centres

Sales and production presence around the world in the industrial, financial, retail and knowledge sectors.
El ADN de Mondragon

- Ecosystem enablement

- Set up for success by early decision to create an innovation platform. Key focus on education institutions.

- Financial support – key focus area of Mondragon

- Being a competitive firm is at the top of their vision, and has allowed them to successfully compete globally
French-based multinational corporation is a top global producer of cement, aggregates and concrete operating quarries and cement factories in 61 countries.

Their **Affordable Housing Programme** uses:
- Microfinance
- Earthen-cement building solutions
- Slum renovation
- Solutions for collective social housing

250,000 people have benefitted

Example of how building an eco-system and working with partners, while having short term and long term thinking within the company can benefit many.
Integrated Innovation
“The tracks of international research on innovation demonstrate that the technology-oriented paradigm – shaped by the industrial society – does not cover the broad range of innovations indispensable in the transition from an industrial to a knowledge and services-based society: Such fundamental societal changes require the inclusion of social innovations in a paradigm shift of the innovation system.”

Vienna Declaration: The most relevant topics in social innovation research
Social Innovation will play an important role in the Europe 2020 strategy

"Creativity and innovation in general and social innovation in particular are essential factors for fostering sustainable growth, securing jobs and increasing competitive abilities, especially in the midst of the economic and financial markets crisis."

José Manuel Barroso
11th President of European Commission
In this light innovation can be understood

“as a process of collective creation, in the course of which the members of a particular total population learn, i.e. invent and establish, new ways of playing the social game of collaboration and conflict, in a word a new social practice, and in the course of which they acquire the necessary ... abilities to do this.”

(Crozier/Friedberg 1993)
CSR to CSI?

- From reputation-driven to value-driven
- Mobilising core assets and capabilities of the business not marginal ones
- Genuine partnerships with civil society and public sector
- Genuine scale – not showcase pilots
- Demonstrable impact and efficacy
A strategic shift across sectors

Social innovation is “the deployment of technology and new business models to bring about positive change to the lives of individuals and societies, creating shared value and improved social infrastructure to address global megatrends.”

“At DuPont, we believe that the answers to the greatest challenges facing humanity can be found through inclusive innovation...”

“Co-creation at Danone: opening societal project governance to maximize the creation and sharing of economic and social value.”

“Shared Value: is a management strategy focused on companies creating measurable business value by identifying and addressing social problems that intersect with their business.”
Impact of CSI Around the World

Novartis, a global pharmaceutical company, developed a for-profit sustainable health initiative designed to improve access to medicines for the 740 million people estimated to be living at the bottom of the pyramid in rural India.

Launched in 2007 in Kenya, by 2013 M-PESA transactions accounted for 43 percent of Kenya’s GDP.

Grameen Danone Foods Ltd created in partnership with Danone and the Grameen Bank - consciously designed social business joint venture in Bangladesh to fight malnutrition.

The M-PESA model was implemented in Afghanistan by in 2009 as a trial to pay the Afghan national police with mobile money instead of cash. It diminished middle-man corruption, and most salaries went up by 30%.
Definitions of Integrated Innovation

Integrated Innovation is the coordinated application of scientific/technological, social and business innovation to develop solutions to complex challenges.

This approach does not discount the singular benefits of each of these types of innovation alone, but rather highlights the powerful synergies that can be realized by aligning all three.

Integrated Innovation recognizes that scientific/technological innovations have a greater chance of going to scale to achieve global impact and sustainability if they are developed from the outset in conjunction with appropriate social and business innovations.
Thank you!

For more information, please contact:

Tim Draimin - tim@sigeneration.ca

www.sigeneration.ca
www.sigknowledgehub.com
Twitter: @sigeneration