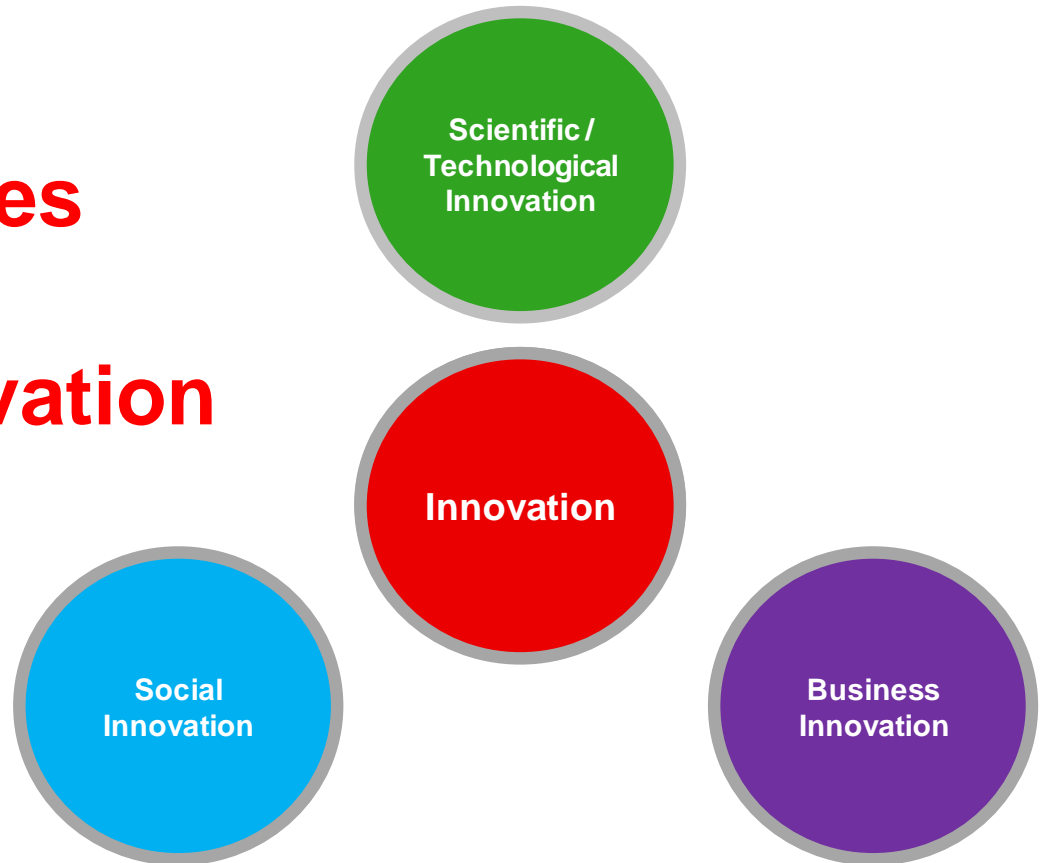


# Grand Challenges Canada's Integrated Innovation Approach



# Integrated Innovation

- > Defined as 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 innovations alone, but rather highlights the powerful synergies that can be realized by aligning all three.
- > Recognizes that scientific/technological innovations have a greater chance of going to scale and achieving global impact and sustainability if they are developed from the outset with appropriate social and business innovations.
- > The three components do not necessarily need to be considered in isolation, often one type of innovation affects other spheres.

## Scientific / Technological Innovation



Scientific /  
Technological  
Innovation

- > Process of developing new and/or modifying existing products, services, practices or processes.
- > Scientific/technological innovations can be simple, *i.e.* no requirement for high-tech.

E.g. point-of-care diagnostic technology; new or modified health service

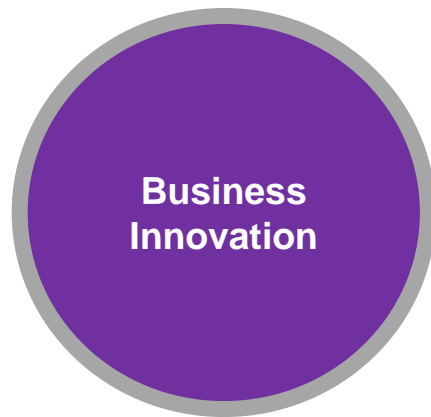
## Social Innovation



- > Ways to bring innovation to scale in specific local and regional contexts.
- > Consider/address the key components of society that that will be necessary to bring the solution to scale in local communities to influence health outcomes.
  - E.g. health systems, determinants of health, ethical/social/cultural/legal frameworks, public policies, and human resources, among others

E.g. social practices that influence how healthcare is sought out, and how it is delivered; reduction of stigma associated with seeking care.

## Business Innovation



- > Development, distribution and delivery of appropriate, high quality goods and services affordably and sustainably where and when they are needed most
- > Defining a value proposition/incentives that brings the right players to table (e.g. payors, policy-makers, industry, etc.)

E.g. Novel business/operational models for increased accessibility and financial sustainability; cost-benefit analysis

E.g. Developing a business case for a market where there is presently not a clear value proposition

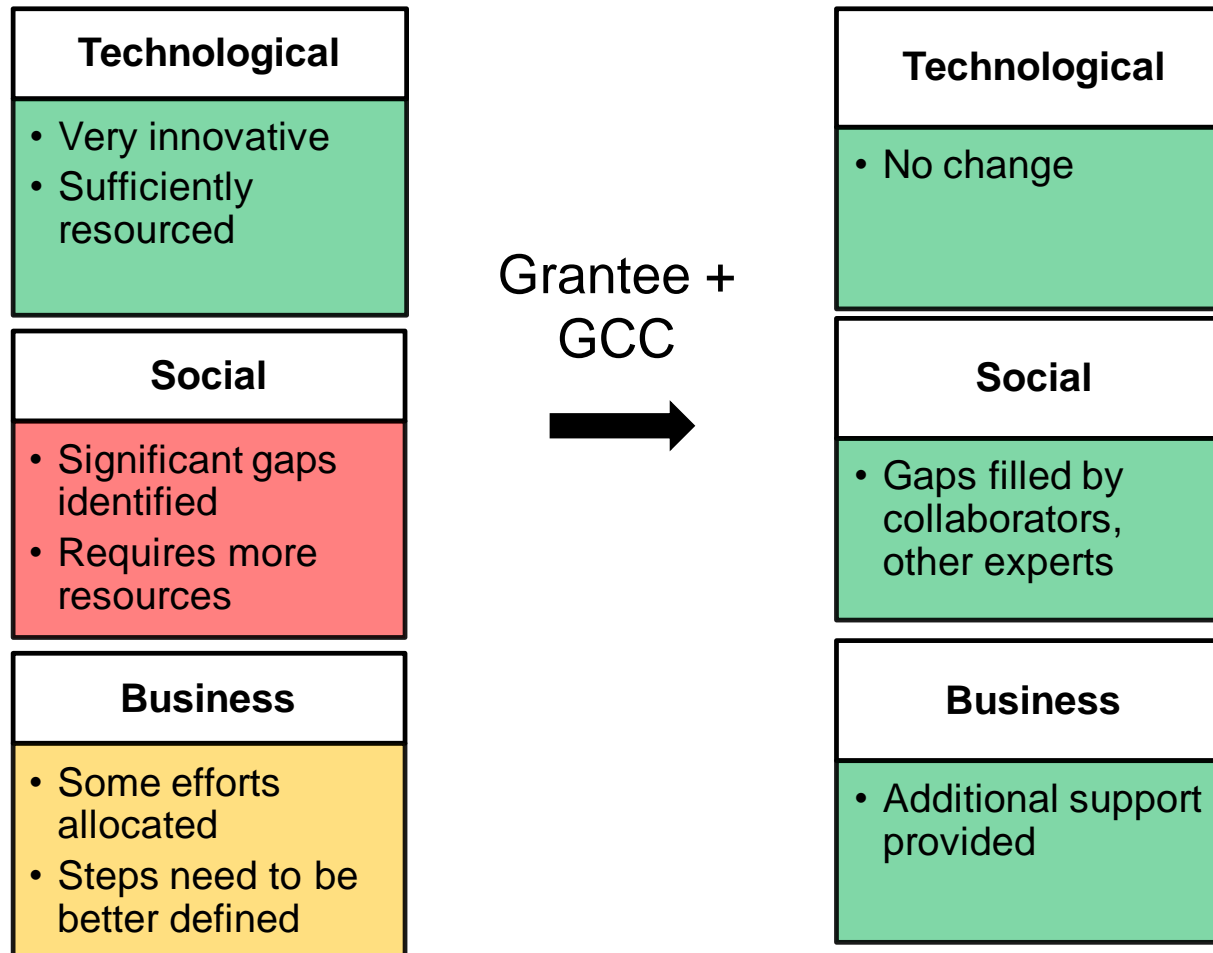
# Fostering Integrated Innovation

- > **End users of proposed solution identified and engaged**
  - Who would be the primary user/client?
  
- > **Social / commercial value of proposed solution**
  - What is the perceived value of the solution to individuals, families, or the community?
  
- > **Business / implementation plan for proposed solution**
  - Why hasn't the solution reached scale?
  - Is it sustainable? Is there a way to make it more sustainable?
  - Are there ethical or legal or cultural barriers?

# Integrated Innovation – Example of a Point of Care Diagnostics Innovation

|   |  |
|---|--|
| <b>Scientific/<br/>Technological<br/>Innovation</b> | <p>Development of an innovative, simple-to-use, accurate diagnostic technology for rapid, accurate assessment of individuals' health status in low resource settings</p>   |
| <b>Social<br/>Innovation</b>                        | <p>Understanding of the specific local and regional contexts in which this intervention will be used. Considering/addressing the key components of society that act as a barrier or influence utilization of this technology for improved health outcomes. <i>E.g. quantity of blood sample taken from patient</i></p>     |
| <b>Business<br/>Innovation</b>                      | <p>Identify current plans for how to produce and deliver the diagnostic affordably and sustainably in low resource settings. <i>E.g. developing a business plan to manufacture and distribute in target market; strategic partners are identified and engaged to support manufacturing, distribution and marketing</i></p> |

# Integrated Innovation – Example POC Dx





# Integrated Innovation Approach

|   |  |
|---|--|
| <b>Scientific/<br/>Technological<br/>Innovation</b> | <i>Outline briefly how your proposed solution focuses on the development and application of innovative ideas and/or technologies grounded in scientific data or evidence.</i>  |
| <b>Social<br/>Innovation</b>                        | <i>Outline briefly how your proposed solution considers elements such as health systems, determinants of health, ethical / social / cultural / legal frameworks, public policies, and human resources, among others, that will be necessary to bring the solution to scale in local communities.</i> |
| <b>Business<br/>Innovation</b>                      | <i>Outline briefly how your proposed solution considers appropriate models and systems (e.g., creative financing mechanisms) that will be necessary to enable the development and delivery of the solution affordably and sustainably to people in low- and lower-middle-income countries.</i>       |

## Scientific/Technical Innovation

- What products, technologies, processes and know-how might be necessary to address the challenge?
- How does the proposed solution differ from existing approaches?
- Is there a scientific basis or evidence for the proposed solution?
- Is there any existing research or evidence that can be used from other countries (or low resource settings)?
- Is there any additional research needed to determine the effectiveness of this solution?
- Is the proposed solution technically/scientifically feasible?
- How will the scientific/technological innovation be validated? What data is needed to demonstrate proof-of-concept?

# Questions to Consider...

## Social Innovation

- How will the solution be delivered to the end-user?
- How will the solution/approach be tailored to the local context?
- Can existing infrastructure, health systems or practices be utilized to support uptake of the solution?
- What other socio-cultural factors need to be considered in developing and scaling up the solution?
- How does the current political will and national policies impact implementation and adoption of the solution?
- Are there opportunities to engage the community in scale-up?
- Will the solution provide an opportunity for country ownership?

# Questions to Consider...

## Business Innovation

- What is the value proposition (or key differentiator) for your solution / technology vs. alternatives that are currently available?
- What is the potential price for the intervention?
- What are your priority markets and market segments?
- Are there appropriate systems in place to produce and deliver the solution at an affordable price point?
- If successful, will this innovation be commercially valuable? What are the next steps to commercialize the technology?
- Is there any part of your work that would require intellectual property (IP) protection?
- What potential business model would you adopt to sustain delivery?