Improved Innovation Decision Making

A Toolset and Guide for Decision Makers
Abridged Version

A product of the YieldWise initiative - 2017

Developed by:

Global Knowledge Initiative

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AGRA
Growing Africa's Agriculture

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Table of Contents – *Abridged Version*

About YieldWise:

In 2016, The Rockefeller Foundation launched YieldWise, a US $130 million initiative to demonstrate how the world can halve post-harvest food loss by 2030. This effort currently focuses on four value chains in three countries: maize in Tanzania, cassava and tomatoes in Nigeria, and mangoes in Kenya. To help meet their ambitious target, The Rockefeller Foundation invited GKI to support YieldWise as its Innovation Partner.

About the Global Knowledge Initiative:

GKI is a non-profit organization with the mission of developing purpose-driven networks to deliver innovative solutions to the world's most pressing challenges. In its role as the YieldWise Innovation Partner, GKI helps Implementing Partners improve their effectiveness and impact through innovation. In addition to scanning for innovations with the potential to reduce food loss, GKI works with Implementing Partners to address their innovation capacity building goals. This effort builds upon a legacy of work with The Rockefeller Foundation on the post-harvest food loss challenge: GKI served as the Social Innovation Lab for the Foundation's Food Waste and Spoilage Initiative in 2013-15.

Introduction

What is improved innovation decision making and why does it matter for global development?

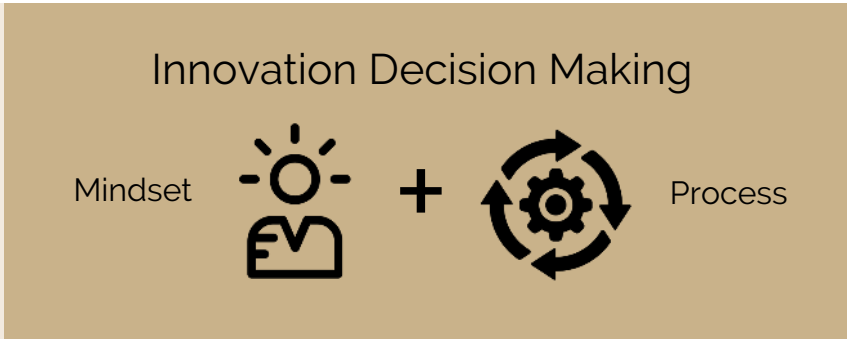
What is Innovation Decision Making?

As a term, "innovation" is everywhere. Headlines tout it; commercials advertise it; innumerable companies claim it. It is a term so pervasive that it risks becoming meaningless. According to WIRED contributor Michael O'Bryan, "the overuse and generalization of the term 'innovation' has led to a loss of understanding of what it is we need when we say we need more innovation" (n.d.).

The hype around innovation has led to a proliferation of shorthand images and explanations that do not do justice to the iterative process by which innovation emerges. Images of shiny products, smart gadgets, and new, efficient processes fill our mind's eye when we think of innovation. But the truth is a bit more complicated. Innovation is the culmination of a series of decisions – both small and profound– made within a deliberate process of experimentation and design, all in an effort to unlock new value and achieve significant outcomes not achievable through status quo approaches. It takes a particular **mindset** and clear decision-making **process** to effectively translate a novel idea into an innovation with impact.

An innovation decision-making process – and the mindset that enables it – isn't a highly guarded secret. It is learnable and feasible for individuals and organizations seeking to deliver value, whether in the private, public, or philanthropic sector. Indeed, improved innovation decision making is a skill set *anyone* can develop with the right support and resources (Banjeree & Ceri, 2016).

Innovation is the culmination of a series of decisions – both small and profound – made within a deliberate process of experimentation and design.



Why do we need to improve Innovation Decision Making?

The global development community is feeling more intense pressure to solve problems while global challenges become more complex, interconnected, and dynamic. Against this backdrop, organizations race to keep up while pursuing their impact goals. And all of this occurs at a time of global economic recovery, when organizations are expected to do more with less.

It is no wonder then that global development practitioners are increasingly called upon to better integrate and support innovation within their programs and projects. Innovation has incredible potential to unlock new value and deliver impact at a pace and scope far greater that traditional approaches. This is especially true for challenges that persist despite development organizations' best efforts.

So then, the most pressing questions ahead of development practitioners may not be *why* improve innovation decision-making, but ***how***. For example:

- How might I improve my innovation decision-making skills amidst other expectations and pressures of my job?
- How do I / my organization get started?
- How might I become an effective innovation decision maker without becoming an innovation expert?

This improved innovation decision-making toolset is meant to be a guide for individuals and organizations asking "how" amidst a growing list of innovation-related questions. Continue reading to learn more!

The Innovation Imperative:

Why individuals and organizations seeking development impact should make innovation a core value

- Innovation helps "bridge the gap between new types of problems and current organizational capacity."
- Often an underutilized resource, the innovation capacity of an organization's workforce represents "untapped potential for value creation" and leadership.
- Status quo approaches "encourage solving piecemeal problems but miss opportunities to generate systemic solutions."
- There is "universal pressure to achieve more with less."
- Innovation can serve as a way to "reinvent one's own organization" and become resilient in the face of uncertainty and future unknowns.

(*Excerpt from Banerjee & Ceri, 2016*)

How do you improve Innovation Decision Making?

The Global Knowledge Initiative (GKI) asserts that efforts to improve innovation decision making must address both a decision maker's *mindset*, and the *process* they use to make choices as they journey from idea to impact. Having the right *mindset* will only get you so far without a clear *process* for generating insights, reframing challenges, developing and testing new ideas, and determining a course of action. The same can be said for the inverse: having an effective *process* without the right *mindset*.

Mindset

"Mindset" refers to a person's way of thinking, their mental attitude, and their assumptions or biases about how the world works. A person's mindset informs how they view the world, explore possibilities, and imagine alternatives (Banerjee et al., 2016). An "innovation" mindset exhibits creativity and systems thinking, among other things. For more about cultivating a mindset ripe for innovation decision making, see page 12.

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A decision-making process involves analyzing alternatives, making choices among options, and ultimately selecting a course of action (UMass Dartmouth). Within the realm of innovation, this could mean the process by which decision makers source innovation externally, or cultivate it internally, in an effort to achieve various goals. Specific tools and approaches – and the skills to use them effectively – can strengthen and inform innovation decision-making processes. For more on innovation decision-making process, see page 18.

Process

Who is an Innovation Decision Maker?

***Anyone* can be an innovation decision maker.** Truly, the mindset and process for effective, impactful innovation decision making can be learned and exhibited by anyone who dares to try, given the right resources and support.

That said, the increasing gap between the innovation imperative for global development organizations, and the limited support given to innovation capacity building within these organizations, beckons for a response. This toolset, therefore, takes as its **primary focus** those practitioners whose day-to-day work entails translating ideas into impact for global development programming: **Senior Managers, Program Managers, and Field Officers.** These practitioners are characterized by different roles and responsibilities, but each exhibits the potential for significant influence over global development operations.

Senior Manager

People in charge of high-level vision, strategy, organizational development, etc.

Key Responsibilities: *Strategic planning and visioning; Business development and fundraising; Hiring and staff planning; Organizational strengthening*

Key Interactions: *Program Managers, Partners, Donors, Senior Managers of peer organizations, Other stakeholders*

Key Innovation Questions: *How can we support a more innovative culture across our organization? How can we incentivize innovation and remove barriers to collaboration? How can we model, not just mandate, innovation from the top? How can we learn from colleagues working at all levels of the organization?*

Program Manager

People in charge of day-to-day operations, staffing, budgets, etc.

Key Responsibilities: *Program planning and implementation; Business development and fundraising; Monitoring and evaluation; Communications; Staff capacity building*

Key Interactions: *Senior Managers, Field Staff, Partners, Donors, Other Stakeholders*

Key Innovation Questions: *How can we leverage innovation to more effectively and efficiently achieve sustainable, scalable impact? How can we convene stakeholders and align around shared goals? How can we boost the innovation capacity of our team and broader organization?*

Field Officer

People who oversee and support program implementation on the ground.

Key Responsibilities: *Program planning and implementation; Community mobilization; Task management and planning; Monitoring and evaluation; Knowledge transfer (internal and external)*

Key Interactions: *Senior Management, Community Leaders, Beneficiaries, Local Stakeholders*

Key Innovation Questions: *How can we better leverage innovation to achieve program or project goals? How can we achieve greater success with the innovations we implement? How can we effectively source and generate innovative solutions?*

What role does your organization play?

Innovation decision making most often takes place in a broad organizational context. Indeed, the role of organizations in promoting innovation for global development is becoming more pronounced: organizations serve as effective platforms to mobilize resources, aggregate talent, and operate at a large scale – all things needed to address complex development challenges.

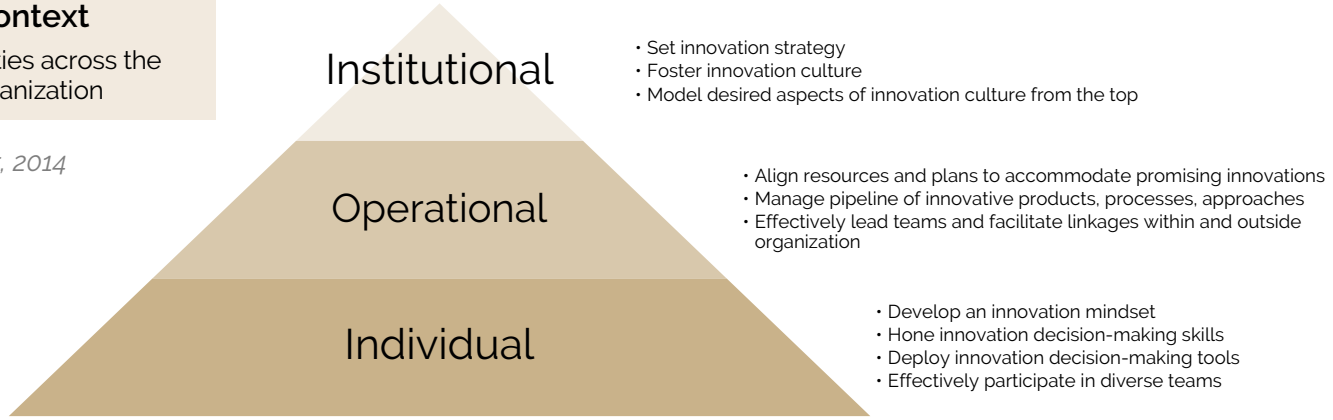
That said, even the best efforts to improve innovation decision making among staff will prove insufficient if not met with similar efforts to enable an innovation-friendly culture across the organization (Horth and Vehar, 2014). Organizational culture can be defined as the values, behaviors, and norms that define an organization from the inside out (Watkins, 2013). Being "innovative" cannot just be mandated from the top down (Horth and Vehar, 2014). It has to be sponsored and modeled from the top, while at the same time, nurtured and prioritized from the lower tiers of the organization. Indeed, people will only be as innovative as their organizational context allows.

The bulk of this toolset focuses on what individual practitioners, namely Program Managers and Field Officers, can do to be more innovative in their roles. Of course, individual efforts will only go so far on their own if the organizational context is not conducive to innovation. Ideas for how to spur organizational change can be found on Page 65.

Supporting Innovation in the Organizational Context

Distinct roles and opportunities across the various levels of an organization

Source: Horth & Vehar, 2014



"In the last century, the competency of an organization was measured in terms of its operational excellence…In the twenty-first century, it is going to be measured in terms of its ***innovation capacity****."*

(Banerjee & Ceri, 2016)

The Mindset

The “central operating system” of an innovative thinker

What is an Innovation Mindset?

Mindset is the "central operating system" of the innovative thinker (Horth, 2014). It sets the frame for how an individual approaches a challenge, explores possibilities, engages others, and ultimately determines a course of action. As noted previously, global development organizations increasingly seek to address complex challenges that are multidimensional, oftentimes ambiguous, and constantly evolving. Decision makers within these organizations, therefore, are increasingly expected to innovate amidst complexity, a charge that requires a particularly unique innovation mindset.

The bulk of innovation literature emphasizes ***creative thinking*** as a central feature of the innovation mindset. When dealing with complex challenges, GKI believes that ***systems thinking*** is also warranted. "Creative thinking" and "systems thinking" often are treated in isolation because they have emerged from different schools of study and practice. GKI argues that pursuing innovation amidst complexity beckons for a hybrid of the two. The approaches in this toolset invite development practitioners to employ both creative and systems thinking as a cohesive innovation mindset that exhibits the characteristics highlighted on Page 14.

Creative Thinking

The ability to generate new ideas by approaching problems or existing practices in imaginative, novel ways (Glasspool, 2002)

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Systems Thinking

The ability to see more clearly how things unfold over time and [to better understand] the web of interconnections within which we live and act (Senge, 2015)

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Innovation Mindset

What characterizes an Innovation Mindset?

Much has been written – and much will be written still – about the characteristics of an innovation mindset. While there is no ultimate authority or definition, the following table highlights some of the well-established characteristics of an innovation mindset, as understood as the **integration of creative and systems thinking**. (*List informed by Senge, 2011; Horth & Vehar, 2014; Banerjee & Ceri, 2016; Grantmakers for Effective Organizations, 2016*)

Creative Thinking

Key Principles:

- Innovation emerges from a creative process in which ideas are generated and transformed into something that shifts or disrupts typical practice
- Emphasizes generating many, diverse ideas before evaluating them in order to identify high-potential innovation opportunities

Key Characteristics:

- Empathetic; Takes a human-centered approach
- Optimistic; Asks "What if…"
- Proactive; Is future-oriented
- Avoids making quick judgements; Remains open to unexpected possibilities
- Embraces potential risk and failure

Systems Thinking

Key Principles:

- Complex challenges emerge and persist in systems; to have any chance at addressing such challenges, we must have insight into the system in which it manifests
- Emphasizes the importance of flexibility and feedback loops in program design and implementation

Key Characteristics:

- Holistic; Aims to understand the full system (e.g., interactions within, functions of)
- Expects non-linearity; Assumes an unpredictable future
- Embraces complexity; Focuses on clarifying interactions
- Seeks out patterns and feedback loops; Anticipates unintended consequences

Shared Characteristics

While often treated as distinct, creative thinking and systems thinking share a number of characteristics, which highlight their complementarity and "fit" within a cohesive innovation mindset.

- Reflective; Surfaces and tests assumptions
- Open to ideas; Emphasizes co-creation with others who offer diverse perspectives
- Flexible; Embraces ambiguity and can sit with unknowns
- Balances synthesis with analysis
- Exploratory; Acknowledges multiple possible solutions
- Curious; Emphasizes continuous learning and idea refinement
- Multi-faceted; Works on multiple levels and timeframes

How is an Innovation Mindset distinct?

Innovation decision making is not meant to supplant the traditional planning and implementation practices of global development organizations. No doubt, people make decisions every day. Rather, this toolset and the mindset it beckons are meant to improve the degree to which decisions elicit better innovation outcomes. That said, savvy innovation decision makers are able to move flexibly between an innovation and "business as usual" mindset. They understand that particular scenarios and circumstances call for different types of mindset and approaches for decision making. It is worth noting how an innovation mindset is distinct from "business as usual."

"Business as usual" Mindset	Innovation Mindset
Emphasizes logic	Emphasizes intuition
Asks "How do we know?"	Asks "What if?"
Jumps quickly to decisions	Considers multiple options and reserves judgement
Asserts "Right" or "Wrong"	Asserts "There is a better way"
Avoids ambiguity	Embraces ambiguity
Seeks to clarify the immediate decision-making context	Seeks to understand the full system
Expects linear cause and effect	Anticipates nonlinear interactions and unintended consequences
Set it and forget it	Ongoing, iterative planning
Learn than execute	Continuous learning and refinement of ideas

Table modified from Horth & Vehar, 2014 and Grantmakers for Effective Organizations, 2016

How might you develop my Innovation Mindset?

As noted, **anyone** can develop an innovation mindset. To be sure, practice makes (close to) perfect. There are many ways to strengthen an individual's innovation mindset, whether in terms of generating more, creative ideas, or in finding connections in seemingly unconnected things. The approaches listed below aim to develop a way of thinking that can inform innovation decision making, no matter the organizational contexts or specific challenge to be addressed. While you may start by trialing one or two of these approaches in your work, the idea is that eventually they become habit, a regular way of thinking and operating, such that an innovation mindset becomes second nature.

Connect What's Not Connected

Practice connecting the dots between ideas that seemingly have nothing in common. **Pick a random input**, like a picture, or a word plucked out of a dictionary, and tell a story about how it connects to the problem you seek to solve. **Create a visual mind map** by writing a few key phrases on a blank sheet of paper along with anything else on your mind; connect what is on the page as much as possible.

Take a Different Perspective

Push yourself to get in the habit of engaging others to explore nascent ideas, or evaluate possible options. **Ask different people**, even individuals outside your organization, what they think. **Consider the problem from multiple vantage points** (e.g., from that of a single mother, a recent college graduate, a community leader) to refine your understanding of a problem, and its possible solutions

Disrupt Thought Patterns

Find specific ways to break out of "business as usual" thinking. **Challenge your assumptions** about why a specific problem exists or why a current practice persists. **Reverse your thinking**: instead of thinking about how you might double the number of beneficiaries served by a program, think instead about how you might reduce beneficiaries by half. The flip side of *those* ideas might just lead you to a novel approach to your original problem.

Get in a Positive Headspace

Innovation is an inherently optimistic endeavor. It stands that an innovation mindset should be similarly positive. **Believe in yourself** and your ability to think and act differently. **Remove distractions** and **give yourself space** to think and daydream; **Change your surroundings**, such as by going outside or to a place that inspires you. **Lighten the mood** by doing something that is active or makes you laugh.

Content informed by: Mind Tools, n.d.

How might you maximize your innovation talents?

To be sure, the characteristics of an innovation mindset listed previously set a high bar. It is hard to imagine any single individual exhibiting *all* of those characteristics at a level sufficient to effectively innovate amidst complexity. This is one of the reasons why ***teams*** have been increasingly important within the innovation space, especially when trying to address multidimensional, quickly evolving challenges.

Not all individuals are endowed with the same proclivities or natural talents for creativity, risk taking, information synthesis, etc. While one person on a team may easily generate many possible solutions to a problem, another may struggle to come up with even one unique idea. However, that person may be brilliant at building upon others' ideas once they are on the table. Understanding the inherent strengths and weaknesses for innovation within yourself and your teammates serves as an important step in leveraging the full breadth of resources at your disposal.

Innovation and creativity expert Min Basadur presents four personas that map to a generic innovation decision-making process: The Generator, The Conceptualizer, The Optimizer, and The Implementer. Each of these personas exhibit particular natural talents and preferences that can be strategically leveraged as a team journeys from idea to impact. A deep-dive into these four personas and how individuals can maximize their natural talents and preferences for these roles falls outside the scope of this toolset. For more information, and to assess your own innovation persona, visit: http://www.basadur.com.

The Generator

- Often plays the role of "getting things started"
- Loves identifying problems and collecting information pertinent to that problem
- Option creators

The Optimizer

- Often turns abstract ideas into concrete solutions & plans
- Loves to select an idea and plan next steps
- Serves as an idea evaluator and easily offers feedback

The Conceptualizer

- Likes defining the problem
- Often performs the function of "putting together ideas and solutions"
- Also adept at option creation

The Implementer

- Known for "getting things done"
- Loves to take action
- Can also serve as an idea evaluator

Basadur, Applied Creativity, 2004

The Process

Tools and approaches to support decision makers
along their innovation journey

What is an Innovation Decision-Making Process?

Traditionally, a decision-making process is understood as a series of steps one undertakes to analyze alternatives, make choices among available options, and ultimately select a course of action (UMass Dartmouth). Everyday, individuals make thousands of decisions to complete tasks, reach goals, and generally function in the world. Innovation decision-making is a process distinct from this routine type of decision making. It is a series of iterative steps individuals and teams take to **generate insights, reframe their challenges, develop and test new ideas, and determine a course of action – all in pursuit of new sources of value, efficiency, and effectiveness** (Banerjee & Ceri, 2016; Horth & Vehar, 2014). For global development organizations, this may mean cultivating innovation internally and/or sourcing innovative ideas externally.

Importantly, for those innovation decision makers seeking to deliver system-wide change akin to that sought through large-scale international development efforts, GKI asserts that this process must also include **steps to contend with various dynamics of the system in which decision makers seek to achieve impact.** Innovation processes often fail to adequately contend with system dynamics, resulting in unintended consequences and unanticipated challenges related to executing innovation strategies in complex environments.

The process upheld here seeks to bring these two objectives – (1) determining a course of action by generating insights, reframing challenges, developing and testing new ideas, and (2) contending with system dynamics – into one cohesive innovation decision-making process poised to help individuals and organizations achieve system-wide change through innovation.

Ultimately, the quest to spur system-wide change via improved innovation decision making centers on how well individuals and organizations can ***generate insights, reframe their challenge, develop and test new ideas, and determine a course of action, while contending with system dynamics,*** *as they pursue new sources of value, efficiency, and effectiveness.*

What does this process entail?

The innovation decision-making process is comprised of two main components: the **tools** used and the **skills** employed by decision makers as they work to deliver value, efficiency, and effectiveness through innovation. The tools for improved innovation decision making represents the major focus of this work. The tools presented include those sourced, tested, and refined by GKI over years. GKI has seen them offer value to a range of decision makers, in a host of contexts, on a variety of challenges. They are not the only tools to enhance decision making for innovation, but they are a powerful set proven to work.

The skills for improved innovation decision making are best learned and practiced over time, namely by applying the innovation mindset and toolset presented here. This document will not unpack these essential innovation skills in great detail, though we present some of the most important ones on Page 24. This choice is based on experience: individuals seeking to boost their innovation skills are best served via a combination of training, coaching and mentoring, and especially learning-by-doing.

Tools

Tools and approaches that decision makers use to help identify, evaluate, select, and act on high-potential innovation opportunities, many of which are offered in this document.

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Skills

The capabilities and knowledge that decision makers employ to accomplish their innovation goals, which are developed and refined over time through application and practice.

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Innovation Process

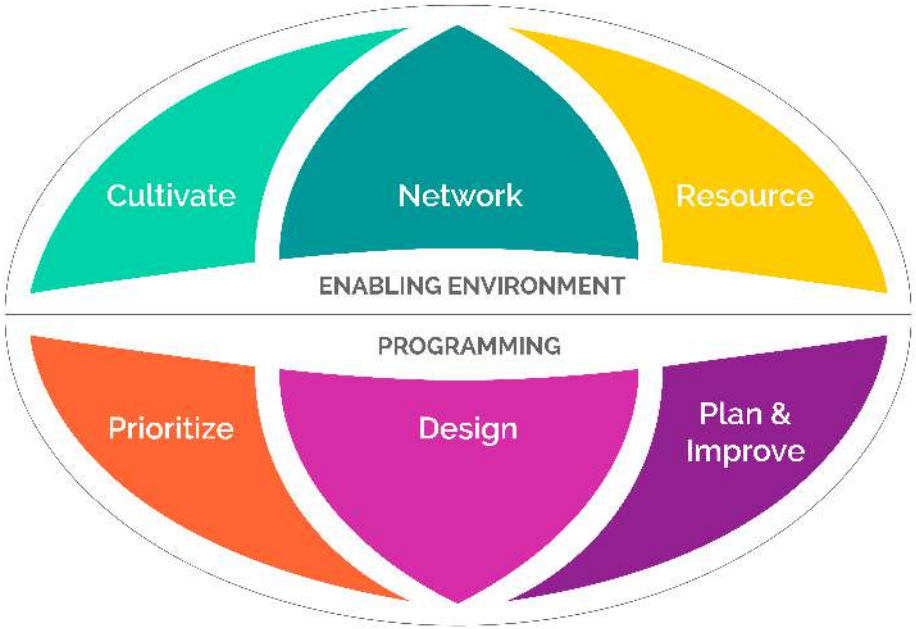
What tools support Innovation Decision Making?

As noted, many innovation processes – and their related tools and skills – fail to adequately support decision makers in their effort to unpack and maneuver amidst various systems dynamics. Decision makers must uphold an "inside-outside" perspective, understanding that factors outside their influence will bear on the choices they make and the courses of action they pursue inside their organization.

Understanding this reality, this toolset purposefully upholds this "inside-outside" perspective, empowering decision makers to make sense of the bigger context in which they seek to innovate.

- The **Programming** half of the toolset provides tools and skills to support operational decisions typically falling within a manager or field officer's influence: **prioritizing** among challenges, **designing** effective solutions, and **planning and improving** upon one's efforts.

- The **Enabling Environment** half of the toolset provides tools and skills to support decision areas that bear on Programming, but may lie somewhat outside an individual decision maker's full scope of influence: **cultivating** organizational innovation; **resourcing** innovation efforts; and **networking** with partners to achieve shared innovation goals.



Key innovation decisions supported by this toolset

Prioritize:

How might we prioritize among challenges, and better understand our selected challenge, before designing solutions?

Design:

How might we generate many creative ideas for how to address our challenge and thoughtfully evaluate those ideas to select the top candidates?

Plan & Improve:

How might we develop our top ideas into robust solutions and improve upon them as we move into implementation?

Cultivate:

How might we align our organizational culture toward our innovation goals?

Resource:

How might we take stock of the resources we have, and those that we need, to innovate effectively?

Network:

How might we build networks equipped to tackle complex challenges and deliver on proposed solutions?

What skills support Improved Innovation Decision Making?

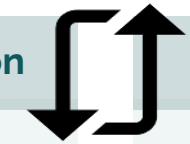
A host of skills underpin effective innovation decision making, especially when pursuing systems-level change. The below image highlights six essential innovation skills that underpin effective use of this Improved Innovation Decision-Making Toolset. The skill pairings listed below – Analysis/Synthesis and Idea Generation/Idea Evaluation – highlight distinct but complementary skills that, when effectively combined, help unlock the full power of innovation.

Analysis

- Ability to dissect a challenge and deeply investigate the parts of the whole

Synthesis

- Ability to "connect the dots" and identify high-level insights and patterns



Idea Generation

- Ability to generate multiple options and seek out ideas beyond the obvious

Idea Evaluation

- Ability to discern among possible options and make choices based on available information

Co-Creation

- Ability to collaboratively generate, integrate, and build on ideas presented within a group

Iteration

- Ability to continuously gather new knowledge and insights, reassess the challenge at hand, and refine innovation options

The Global Knowledge Initiative actively supports individuals, organizations, even full networks seeking to deepen their innovation decision-making skills. For more information about course offerings and experiential learning opportunities, visit:
www.globalknowledgeinitiative.org

"Innovation is not something you can turn on and off.
To dramatically improve your performance,
you must make it routine."

– Min Basadur, The Power of Innovation

Programming

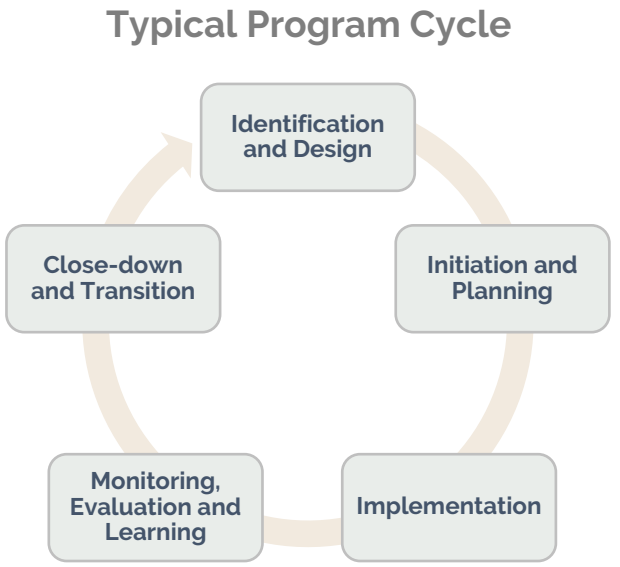
Operational decisions that typically fall within a decision maker's sphere of influence

PROGRAMMING

Development practitioners are not new to decision making. They regularly grapple with a host of decisions within the program cycle (see image). For practitioners seeking to innovate, clarifying how program and innovation decisions intersect can sometimes be tricky. Improved innovation decision making aims to add value to decision making processes regularly used by development practitioners.

Three critical opportunities for innovation decision making within the program cycle include:

- **Prioritize**: How might we prioritize among many competing challenges and opportunities?
- **Design**: How might we generate many creative ideas for how to address our challenge, and thoughtfully evaluate those ideas to select the top candidates?
- **Plan and Improve**: How might we develop our top ideas into robust solutions, and improve upon them as we move into implementation?



Why are these critical? They represent steps in a decision-making process where creative, exploratory thinking can offer real value; where diversity of opinions and ideas can shape the possibilities considered; and where the need for judgment and evaluation stand out. These iterative steps don't map to just one aspect of the program cycle. They can be repeated as a way to continually integrate innovation in program planning and implementation. The tools presented in this section will help decision makers innovate more effectively within their traditional program cycles.

Each decision point within the program cycle offers an opportunity to integrate innovation by means of the processes through which we make decisions.

Prioritize

These tools help decision makers prioritize among challenges and opportunities before designing innovative solutions

Prioritize

Key Question: How might we prioritize among many competing challenges and opportunities ?

Setting Priorities

Why Prioritize?

Many of the challenges we encounter in our work and daily lives are complex. They almost never exist in isolation. Whether big or small, they are typically influenced by a web of factors. These factors often mask the true nature of problems and impede our ability to address them. For instance, food insecurity is affected by a range of factors such as farmer production, post-harvest losses, trade and economic policies, and climate change. Any attempts to address food insecurity will need to take some of these factors into consideration. As development practitioners eager to make a difference, we often operate on a "jump in and solve" tendency. This may cause us to miss the impacts of some of the factors, leaving us perplexed about why challenges endure in spite of our best laid efforts.

Prioritization offers an opportunity to reframe the challenges we seek to solve in order to better understand them and identify alternative problem-solving pathways. Armed with this type of information, we become better placed to develop innovative solutions.

What Do We Gain?

Prioritize tools can help us...

Better Understand our Challenges:

- Gain a better grasp on factors that cause or impact a challenge
- Separate root causes from symptoms

Identify Alternate Problem-Solving Pathways:

- Break challenges down into more manageable pieces
- Figure out how we might sequence activities aimed at addressing a challenge
- Identify aspects of the problem that can be tackled to achieve greater impact

Prioritize

Innovation Decision Making

Decisions that fall within the Prioritize category can be some of the most critical types of decisions taken along the innovation journey. Though the journey is hardly ever linear, these decisions generally come into focus at the beginning, as we filter through information to refine our challenge. Examples of decisions development practitioners may need to tackle within this area include the following:

Program Manager

Sample decisions:

- What strategic objectives should we pursue?
- How do we strategically allocate resources?
- With whom should we partner to scale our impact?

Field Officer

Sample decisions:

- How do we ensure that we generate ideas that are aligned with the interests and needs of our service population?
- How do we anticipate and plan for on-the-ground realities?
- How do we identify and sequence activities within our programs?

Tools

Here are some tools innovation that decision makers can use to improve their ability to prioritize challenges.

1. Challenge Mapping:

Tool to prioritize among many, competing challenges, and better understand how our work connects to that of our partners.

Uses: Helps us

- Break complex challenges into smaller elements
- Brainstorm full scope of issues involved in a challenge

2. System Diagram

Tool to visualize the elements, interactions, and environmental features that comprise the system in which our challenge lives.

Uses: Helps us

- Create a shared understanding of how a system works
- Identify bottlenecks in a system that slow or stop progress on a challenge
- Identify additional actors with which to engage in addressing a challenge

3. Knowns, Unknowns, & Assumptions

Tool to identify where our knowledge of the challenge falls short and determine assumptions to test.

Uses: Helps us

- Aggregate existing knowledge about a challenge
- Reveal knowledge gaps about a challenge
- Clarify assumptions held about a challenge

Design

These tools help decision makers generate creative ideas, and evaluate those ideas, to drive solution design

Design

Key Question: How might we generate many creative ideas to address our challenge, and thoughtfully evaluate those ideas to select the top candidates?

Brainstorming Ideas

Why Design?

Innovation is, first and foremost, an exercise in creativity, one where ideas are generated and transformed into something that shifts or disrupts typical practice. Contrary to popular belief, creativity does not primarily sit within the domain of a few "specially" gifted individuals. It can be learned and practiced by everyone through a continuous process of idea generation and evaluation (Basadur, 1995). This process is understood as "design."

Design offers an opportunity to harness our creative capacities towards identifying higher-quality solutions to the challenges we seek to address. It can be useful in helping us move beyond what we initially consider feasible to truly innovative possibilities. Design focuses on the creative process through which ideas are generated by brainstorming and exploration, and evaluated through comparison and filtration. It is a structured approach to creativity through which innovation often emerges.

What Do We Gain?

Design tools can help us:

Harness our Creative Capacities to Generate Ideas:

- Improve the quality and quantity of ideas generated through our brainstorming efforts
- Move beyond the status quo and realize truly innovative ideas

Improve our Capacity to Evaluate Ideas:

- Compare a broad range of ideas systematically
- Reduce the potential for bias toward a particular solution

Design

Innovation Decision Making

Decisions that fall within the Design category can be some of the most creative decisions taken along the innovation journey. These decisions generally come into focus while we are attempting to identify innovative ideas to address a problem.

Program Manager

Sample decisions:

- How might we break out of the status quo to identify truly innovative program ideas?
- How might we determine the trade-off between risk and return? To what extent should I support my staff in taking informed risks?

Field Officer

Sample decisions:

- How might we identify and sequence activities within our programs?
- Should we adopt an innovative solution or develop our own solution?
- How might we identify, evaluate, and select a solution from a range of innovative ideas?

Tools

Here are some tools that innovation decision makers can use to improve their ability to design around challenges.

1. Fast Idea Generator:

Tool to quickly generating ideas by considering our challenge from various perspectives.

Uses: Helps us

- Brainstorm many creative ideas for addressing a challenge
- Consider challenge from a different perspective

2. Innovation Inspiration:

Tool for generating truly out-of-the-box innovative ideas through considering general innovations with cross-cutting value.

Uses: Helps us

- Brainstorm many creative ideas for addressing a challenge
- Imagine how general areas of innovation (e.g., mobile technology) can be applied to a challenge
- Apply ideas that have worked in other contexts within our work

3. Criteria Grid:

Tool to consider qualities a solution must exhibit and critically evaluate our ideas.

Uses: Helps us

- Outline the key characteristics of the desired solution
- Evaluate which ideas are best aligned with the solution and outcomes we seek to achieve

Plan & Improve

These tools help decision makers develop and refine their ideas
both before and during implementation

Plan & Improve

Key Question: How might we develop our top ideas into robust solutions, and improve upon them as we move into implementation?

Developing a Strategy

Why Plan & Improve?

Good or innovative ideas are only as valuable as our ability to implement them. Making the transition from idea to action can be challenging. Ideas often fall apart at this stage due to factors such as a lack of vision, misalignment of stakeholder goals and perspectives, or poor implementation skills. We might also encounter challenges implementing our initial ideas because they need to be further refined or adapted to account for changing conditions. Good planning can help us address some of these factors and fortify our abilities to successfully implement our ideas. It recognizes that it must be iterative and flexible to account for changing conditions and new information.

Plan and Improve offers an opportunity to build out a strategy for implementing an idea and consider factors that may impact implementation speed or success (such as incentives, risks, partners, resources, changing conditions, and new information). It also helps us refine or adapt project plans as things change or as we learn more about the project context.

What Do We Gain?

Plan and improve tools can help us:

Develop a Strategy:

- Transition our ideas into actionable plans and activities
- Build consensus among stakeholders
- Consider factors that might support or impede implementation of our ideas

Improve the Quality of Our Ideas:

- Consider negative or unintended consequences that may arise from our ideas
- Strengthen our ideas through mitigating issues we identify

Plan & Improve

Innovation Decision Making

Decisions which fall within the Plan and Improve category can be some of the most practical types of decisions taken along the innovation journey. These decisions generally come into focus as we transition from ideas to practical implementation.

Program Manager

Sample decisions:

- How might we develop an implementation strategy given changing conditions or limited information?
- What challenges should we anticipate? How might we mitigate them?

Field Officer

Sample decisions:

- What stakeholders should we engage in the roll-out of the program?
- Do we need to run a program pilot? How do we run one?
- How do we monitor program progress?

Tools

Here are some tools that innovation decision makers can use to improve their ability to plan and improve solutions.

1. Strategy Guide:

Tool to build an effective strategy to take forward our top ideas.

Uses: Helps us

- Develop our ideas into solutions we can implement
- Play out our ideas before moving ahead

2. Idea Refinement:

Tool to improve upon our ideas by considering ways to mitigate negative consequences.

Uses: Helps us

- Refine our ideas by considering how to mitigate negative consequences
- Outline the key qualities or characteristics of a solution and outcomes you hope to achieve

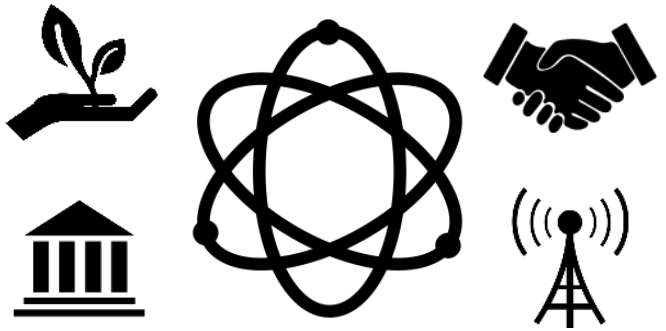
Enabling Environment

Decision areas that typically fall outside a decision maker's sphere of influence

ENABLING ENVIRONMENT

Development practitioners regularly work amidst a set of system features and dynamics that impact their ability to innovate. These system realities form an enabling environment around innovation efforts, and can involve anything from governmental or organizational polices, human capital, infrastructure, market conditions, and structures and processes through which knowledge is shared. Learning how to effectively contend with these broader system features stands as an important opportunity for those seeking large-scale impact through innovation. Improved innovation decision making activities aim to help practitioners navigate the systems – both within and outside their organizational contexts – that influence their work. Three critical opportunities include:

- **Cultivate:** How might we cultivate an innovative culture across an organization? How might we better understand how each member of an organization can contribute and improve innovation decision making?
- **Resource:** How might we take stock of the resources we have, and those that we need, to innovate effectively?
- **Network:** How might we build networks equipped to tackle complex challenges and deliver on proposed solutions?



Why are these critical? They represent opportunities to exert some influence within the environment in which we work. The tools presented in this section will help decision makers innovate more effectively within their environments.

Learning how to effectively contend with system features stands as an important opportunity for those seeking large-scale impact through innovation.

Cultivate

These tools help decision makers assess and
align their organization's culture with their innovation goals

Cultivate

Key Questions: How might we cultivate an innovative culture across an organization? How might we better understand how each member of an organization can contribute and improve innovation decision making?

Developing Culture

Why Cultivate?

For many organizations in a growth stage – whether spanning across sectors or driving further impact on a particular challenge – organizational culture can be a predictor of long-term success. In a dynamic, ever changing environment, the ability for individuals and teams to adapt quickly and take on different leadership roles is imperative. Yet in many institutions, creativity is left for those at the top of the hierarchy, with major decisions being handed down to implementers. For instance, a field officer may receive feedback that a new process for identifying local market needs is ineffective, but lack the license to identify new approaches.

Cultivating innovation mindsets and skills across full organizations allows us to better adapt to increasingly fast paced workplaces and high expectations for achieving impact. As Aristotle stated, "we are what we repeatedly do." Creating a culture that elevates a collective capacity to pursue innovation requires engaging everyone from the field to the C-suite in the decision-making process and recognizes the unique capabilities each team member can offer.

What Do We Gain?

Cultivate tools help us:

Better Measure Innovation Awareness in the Workplace:

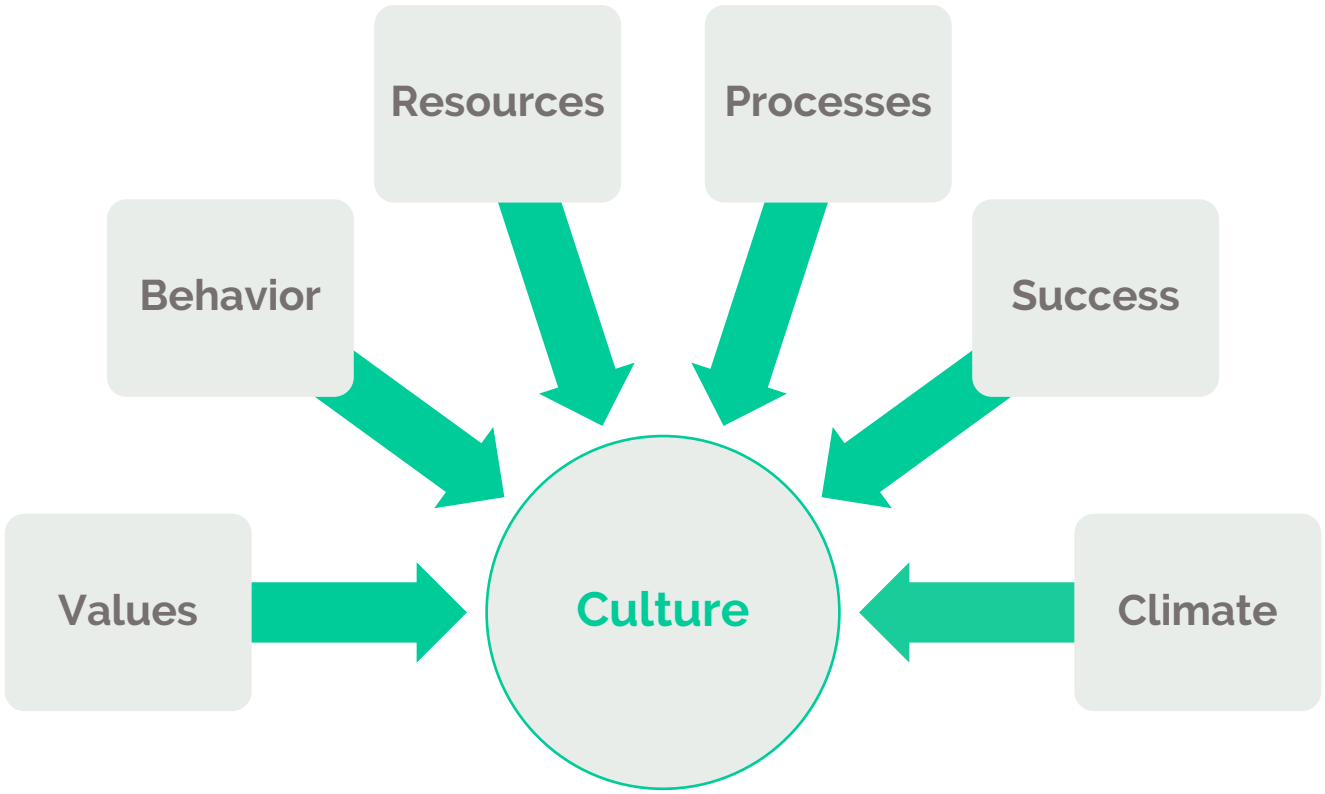
- Understand the entrepreneurship, creativity, learning, and risk tolerance within an organization
- Relate to an organization's motivation for, involvement in, and adaptation to innovation

Better Understand our Challenges:

- Figure out how we might view and measure innovation success within the organization
- Relate to the people, tools, and networks dedicated to innovation within an organization

Cultivate

6 Building Blocks of Organizational Innovation Culture



Cultivate

Innovation Decision Making

Decisions that fall within the Cultivate category are critical for sourcing strategic inputs needed for the innovation journey. These decisions generally come into focus while we are attempting to identify the partners and resources needed to address a problem.

Program Manager

Sample decisions:

- How do we develop a stronger ecosystem of innovation?
- How do we develop appropriate measures to track progress?
- What internal policies will attract international talent, young entrepreneurs, and investors?

Field Officer

Sample decisions:

- How do we keep pace with the moving targets of new technologies and market opportunities?
- How do we nurture an environment that strives for and values collaboration?

Tools

Here are some tools that innovation decision makers can use to improve their ability to cultivate an innovative organization.

Innovation Culture Assessment:

Tool to assess how conducive your organization's culture is to innovation.

Uses: Helps us

- Secure a data-based foundation to guide culture change within your organization
- Quantitatively assess your organization's current culture of innovation
- Anonymously solicit the opinions of a large, diverse group within your organization

Culture Map:

Tool to explore how your organizational culture and norms influence behavior.

Uses: Helps us

- Understand how your organization's culture positively or negatively impacts your work and the goals you're trying to achieve
- Gauge whether a new project or initiative will face barriers to its success given your organization's values
- Change your organization's culture so that it better aligns with your organization's strategic goals

Resource

These tools help decision makers take stock of the resources they have, and those they need, to innovate effectively

Resource

Key Question: How might we take stock of the resources we have, and those that we need, to innovate effectively?

Align and Leverage

Why Resource?

GKI believes it is not a failure of intellect, nor a lack of resources, that keeps us from solving complex, global development challenges. Rather, the failure often lies in how we connect committed individuals, organizations, and their resources to fill these gaps.

Resources are commonly defined in terms of finances. However, money alone will not transform systems. Distinguishing what resources – technologies, policies, experts – are available versus needed positions decision makers to be more specific and creative in fostering change. Additionally, taking a broad-based perspective on resources allows decision makers to see more clearly where new investments should be used to plug holes and catalyze, not duplicate, efforts.

Resource tools expand our perspective on the resources we have and need. This section focuses on the process of taking stock of available and existing resources, and how we might align and leverage resources across strategic partners to achieve greater impact.

What Do We Gain?

Resource tools can help us:

Expand our Perspective on Resources Available for Our Work:

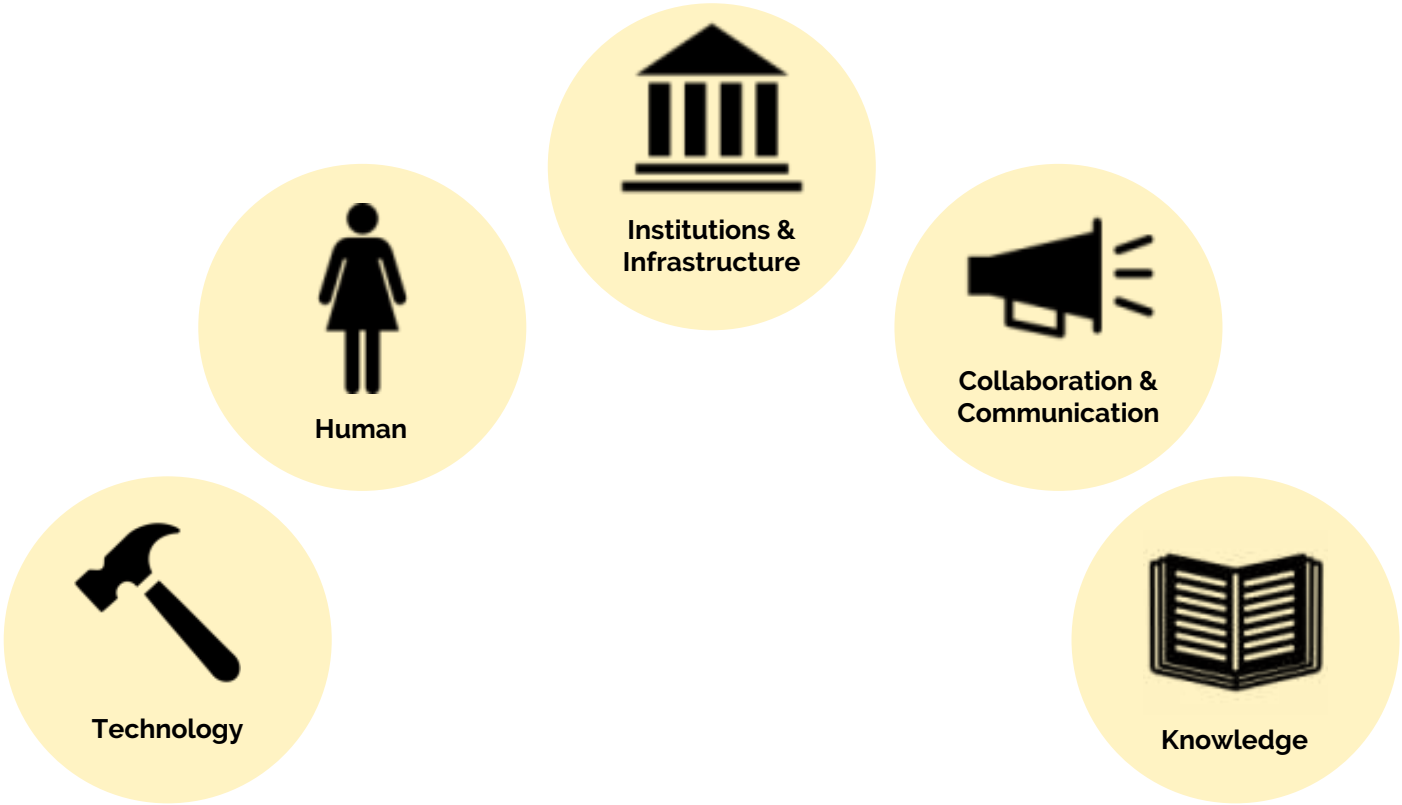
- Identify existing resources and clarify resource gaps
- Get creative about using a broader range of resources to achieve our innovation goals

Leverage Resources within the Broader Global Community:

- Understand where resources exist within the broader community and how they might be leveraged to achieve impact at scale
- Identify and offer a rationale for strategic partnership opportunities

Resource

Examples of Resources



Resource

Innovation Decision Making

Decisions that fall within the Resource category can play a critical role in sourcing strategic inputs needed along the innovation journey. These decisions generally come into focus while we are attempting to identify the partners and resources needed to address a complex challenge.

Program Manager

Sample decisions:

- If we had the funding we needed for our programs, what non-financial resources would we acquire with them?
- How do we identify partnership opportunities that are strategic to reaching our program objectives?

Field Officer

Sample decisions:

- What existing resources can we leverage to realize our project goals?
- How might we integrate good local knowledge and practices into our programming to increase impact and sustainability of our interventions?

Tools

Here are some tools that innovation decision makers can use to identify the resources needed and available to address their challenges.

Resource Stocktaking:

Tool for taking stock of the resources we have and those we need to address our challenge.

Uses: Helps us

- Identify existing and needed resources for tackling a challenge
- Clarify priority partnership objectives

Network Resource Diagram:

Tool for visualizing the resources available and needed within our network.

Uses: Helps us

- Identify available resources and resource gaps within a network
- Initiate preliminary discussions on potential partnership opportunities

Network

These tools help decision makers build networks equipped to tackle complex challenges and deliver on proposed solutions

Network

Key Question: How might we build networks equipped to tackle complex challenges and deliver on proposed solutions?

Maximize Impact

Why Network?

As noted previously, global development challenges are typically complex and extensive in scope. They often eclipse single-actor attempts to address them. Lessons from development practice continue to show how the sharing of knowledge, resources, perspectives and capacities among actors can improve our abilities to develop innovative, scalable solutions. This is spurring a paradigm shift among development practitioners toward greater collaboration across different domains – geographic, disciplinary, and sectoral. Increasingly, practitioners attempt to figure out how they might extend their networks to leverage resources and improve the scale and impact of their activities. Networks – whether informal or formal - can also provide important spaces through which to share experiences and ideas.

The Network section offers an opportunity to take a more strategic approach to identifying potential partners. It focuses on helping us consider areas where we might work with other actors to maximize our collective abilities to achieve impact.

What Do We Gain?

Network tools can help us:

Identify Potential Partners:

- Clarify who exists in our network and who might be missing
- Understand actors, in terms of their ability to influence a problem and the incentives that drive them
- Prioritize actors with whom we can partner and build networks

Maximize Relationships:

- Understand which partners are best suited to address which needs and roles
- Identify approaches to reach shared objectives

Network

Innovation Decision Making

Decisions that fall within the Network category can play a critical role in informing the actors with whom we work along the innovation journey. These decisions generally come into focus while we are attempting to identify the partners and resources needed to address a complex challenge.

Program Manager

Sample decisions:

- With whom and on what basis might we build strategic alliances?
- How might we prioritize among a list of potential partners?
- Are our incentives for action aligned with a potential partner?

Field Officer

Sample decisions:

- What actors should we include within our activities?
- How do we identify and prioritize opportunities to network and build relationships within the communities and spaces in which we work?

Tools

Here are some tools that innovation decision makers can use to build networks equipped to tackle complex challenges.

Network Segmentation:

Tool to map out the landscape of actors with whom we might potentially partner.

Uses: Helps us

- Understand existing and potential partners and the value they offer
- Clarify how relationships can be mutually leveraged to achieve shared objectives

Influence and Incentives Matrix:

Tool to understand the influence actors hold and incentives that drive or inhibit them to act on the challenge we seek to address.

Uses: Helps us

- Clarify which actors are able to influence or have the incentive to address a challenge
- Prioritize actors with whom you should partner based on your programmatic objectives

Getting to Results

Moving from knowledge to practice

How might we move from individual effort to organizational change?

You've used the toolset to make an innovation decision and feel great about it. You know that your idea has the power to transform your work and help you achieve your goals. Now what? First and foremost, you need to bring the rest of your organization on board to support your idea. But organizational culture change is difficult. It takes strategy and effort to build buy-in. Doing so is critical: becoming an innovative organization *depends* on cultural alignment To lead change, individuals across the organization need to build trust, generate enthusiasm, and inspire others to join the cause. Below are tips for how to work within your organization's current culture to achieve buy-in for improved innovation decision-making processes across your organization.

- **Create a sense of urgency.** Communicate your vision again and again – more times than you think is necessary – to let your message slowly become familiar and, ultimately, gain acceptance across the organization.
- **Build a guiding coalition.** Establish a community of practice with innovation champions who can make timely and clear decisions. Create a supportive, safe environment for them to share their new ideas.
- **Form a strategy.** Targeted interventions, designed to change a few critical behaviors at a time, can energize and engage people. Be sure to use both formal approaches—new rules, metrics, training programs, and incentives—with informal approaches, such as behavior modelling, question-and-answer sessions, and distribution of promotional materials.
- **Enlist volunteer support.** Change will not succeed without the involvement of many people throughout the organization. Find people who already support the organization's innovation ethos and enlist their support. Be sure to look broadly across the organization.
- **Enable action by eliminating barriers.** Don't worry if some conflict arises; disagreement is inevitable and fundamental to innovation. But pay attention to others' emotional reactions, and be mindful to portray change in a positive light.
- **Generate short term wins.** Change is hard. You cannot expect to change everything all at once. Honor the strengths of your existing organizational culture by showing how it already supports innovation. This will make the change feel less top-down or forced.
- **Sustain momentum.** Effective culture change takes time. Remain positive and celebrate successes, no matter how small.
- **Institute change.** Once you achieve buy-in and begin implementing specific measures to support innovation, be sure to monitor progress to ensure goals stay aligned and momentum is maintained through the process.

Adapted from the University of Pennsylvania Wharton School Center for Leadership and Change "Five Steps for Managing Culture Change."; Harvard Business Review "Culture Change that Sticks"; John Kotter "8-Step Process for Leading Change"

*"Change is a threat when done **to** me,*
*but an opportunity when done **by** me."*

– Rosabeth Moss Kanter, Harvard Business School

How might we move from individual effort to organizational change?

Individuals at various levels of an organization can exert influence over the broader innovation culture and practice via their personal innovation decision-making efforts. Indeed, as more and more people begin applying an innovation mindset and using innovation tools, "it has an effect on the larger pattern of behavior at the systems level and the organizational system starts operating in ways that constitutes innovation at a higher level" (Banerjee, 2016). While organizational change can be called for and supported from the top, it is brought to life by the individual efforts of many throughout the organization. The images below highlight how three key innovation decision makers – senior managers, program managers, and field officers – might begin this dual process of individual improvement and organizational change.

Senior Manager

People in charge of high-level vision, strategy, organizational development, etc.

Key Opportunities: *Set innovation strategy; support innovation culture; align incentives to spur innovation; support innovation skill building and procedural structures*

Places to Start:

- *Seek out opportunities to model and support innovation activities within your organization*
- *Incentivize innovative behavior and reward informed risk-taking*
- *Demonstrate how failures can be used as learning opportunities*

Program Manager

People in charge of day-to-day operations, staffing, budgets, etc.

Key Opportunities: *Lead innovation processes and teams; support knowledge sharing and collaboration across teams; Model appetite for experimentation and risk-taking*

Places to Start:

- *Listen to field officers and encourage them to put forward new ideas*
- *Remember many of the tools presented can be used multiple times to account for changing conditions*
- *Keep updated on what other partners are doing, seeking out ways to learn from and collaborate with them*

Field Officer

People who oversee and support program implementation on the ground

Key Opportunities: *Actively apply an innovation mindset and tools; refine innovation skills through practice; effectively participate in innovation teams and support colleagues' efforts to become more innovative*

Places to Start:

- *Look for different ways to undertake your activities more effectively and efficiently*
- *Explore challenges as opportunities and engage different perspectives*
- *Keep updated on what other partners are doing, seeking out ways to learn from and collaborate with them*

To view the rest of the Improved Innovation Decision Making Toolset, including how-to guides for each of the profiled tools, please contact the Global Knowledge Initiative directly.

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Appendix

Additional information for the interested reader

Background

The Rockefeller Foundation's YieldWise Initiative sets forward bold targets for reducing postharvest food loss in Sub-Saharan Africa. Supporting **innovation**—defined as a break from typical practice that unlocks improvements in value, efficiency, and/or effectiveness—serves as an essential element of The Rockefeller Foundation's strategy. The pursuit of innovation is not limited to sourcing potentially transformational ideas from other sectors and geographies. It also is represented in The Rockefeller Foundation's commitment to strengthen skills and processes for innovation across the initiative. In this way, The Rockefeller Foundation seeks to leave a legacy of enhanced innovation capacity that persists long after the YieldWise initiative concludes. The Foundation's core Implementing Partners—the Alliance for a Green Revolution in Africa (AGRA), PYXERA Global, and TechnoServe—along with their extended partner networks, serve as the focal points for this innovation capacity building effort within YieldWise.

GKI as the YieldWise Innovation Partner

The Global Knowledge Initiative (GKI), as the YieldWise Innovation Partner, is working closely with the YieldWise Implementing Partners to achieve the specific innovation capacity building goals they articulate during our consultative process. GKI builds purpose-driven networks to deliver innovative solutions to the world's most pressing problems. We thrive on creating the enabling environment, the mindset, and the tools that make Collaborative Innovation possible. Specifically, we help innovators locate resources critical for problem solving; enable effective collaboration by building skills and designing shared agendas; and connect resources and partners into durable networks; all to solve pressing problems and create shared value.

AGRA as a key YieldWise Implementing Partner and Innovation Actor

The Alliance for a Green Revolution in Africa (AGRA) is an African-led agriculture alliance which aims to double yields and incomes for 30 million farming households in Africa by 2020. In an effort to build on its strength as an effective resource mobilizer and program implementer within the African agricultural ecosystem, AGRA identified **improved innovation decision-making** as their chief innovation capacity building goal. GKI and AGRA have worked to develop resources and

Background (continued)

approaches aimed at helping program/project management, staff and **partners more easily generate insights, reframe their challenge, develop and test new ideas, and determine a course of action, while contending system dynamics**. GKI and AGRA recently completed a learning period associated with this effort. Learning activities involved an assessment aimed at understanding the culture of innovation within AGRA and its partners (local organizations with whom AGRA works with and supports to achieve the YieldWise objectives); several consultations with AGRA staff; and a review of organizational documents. Key takeaways from this learning period included the need for a clearer strategy, approach and processes for incorporating innovation into AGRA's and partners' work. The ultimate output of this process is this innovation decision-making toolset, and a focused engagement with AGRA and its partners to support organizational change informed by the toolset.

While AGRA serves as the inaugural focal point for this effort, the utility of this toolset expands beyond a single organization. Indeed, many of the innovation decision making challenge and opportunities confronting AGRA are those shared by other organizations seeking to achieve high-level systems change in complex arenas. This toolset, therefore, seeks to respond to AGRA's need, and to the much broader demand for practical innovation decision-making resources GKI has encountered in our work supporting innovation for development broadly.

For more information about the Improved Innovation Decision Making Toolset, the Global Knowledge Initiative, and our work as the YieldWise Innovation Partner, please contact:

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References

Banerjee, B. S. Ceri (eds) *Creating Innovation Leaders.* (Springer International Publishing, 2016).

Barsade, S. Bernstein, F. "Five Steps for Managing Cultural Change." Wharton Executive Education. September 2014. Retrieved from: http://executiveeducation.wharton.upenn.edu/thought-leadership/wharton-at-work/2014/09/managing-culture-change

Basadur, M. The Basadur Profile. (n.d.) Retrieved from: http://www.basadur.com/howwedoit/TheBasadurProfile/tabid/83/Default.aspx

Basadur, M. *The Power of Innovation.* (Pitman Publishing, 1995).

Brown, T. *Change by Design.* (HarperCollins, 2009).

Dawson, N., Martin, A. & Sikor, T. Green Revolution in Sub-Saharan Africa: Implications of Imposed Innovation for the Wellbeing of Rural Smallholders. *World Dev.* 78, 204–218 (2016).

Edquist, C. *Systems of Innovation Technologies, Institutions and Organisations*. (Pinter, 1997).

Glasspool, J. Business: The Ultimate Resource. (Bloomsbury Publishing, 2002).

Grantmakers for Effective Organizations. Systems Grantmaking Resource Guide. (2016). Retrieved from: http://www.geofunders.org/resource-library/all/record/a066000000KkYmsAAF.

Horth, D. Vehar, J. Becoming a Leader Who Fosters Innovation. (Center for Creative Leadership, 2014).

Kanter, R. *The Change Masters.* (Simon & Schuster, Inc., 1983).

Katzenbach, J. Steffen, I. Kronley, C. "Cultural Change that Sticks." Harvard Business Review. July-August 2012. Retrieved from: https://hbr.org/2012/07/cultural-change-that-sticks

Kotter, J. *Accelerate.* (Harvard Business Review Press. 2014).

Mind Tools, Generating New Ideas. (n.d.). Retrieved from: https://www.mindtools.com/pages/article/newCT_88.htm.

NESTA, *Development Impact and You.* (2014). Retrieved from: http://diytoolkit.org/media/DIY-Toolkit-Full-Download-A4-Size.pdf.

O'Bryan, M. Innovation: The Most Overused and Important Word in America. (Wired Magazine, n.d.) Retrieved from: https://www.wired.com/insights/2013/11/innovation-the-most-important-and-overused-word-in-america/.

Osterwalder, A. "The Culture Map: A Systematic & Intentional Tool For Designing Great Company Culture." Strategyzer. 13 Oct 2015. Retrieved from: http://blog.strategyzer.com/posts/2015/10/13/the-culture-map-a-systematic-intentional-tool-for-designing-great-company-culture

Rao, J. Weintraub, J. "How innovative is your company's culture?" MIT Sloan Management Review. Spring 2013. Retrieved from: http://sloanreview.mit.edu/article/how-innovative-is-your-companys-culture/.

Senge, P. "Navigating Webs of Interdependence." Online video clip. Youtube, 13 July 2011. Web. 25 October 2016.

Senge, P. "What is Systems Thinking." Online video clip. Youtube. 4 June 2015. 22 February 2017. Retrieved from: https://www.youtube.com/watch?v=V38HrPnYkHI.