FRAMING INNOVATIONS FOR SUCCESS:
A practical guide for assessing scaling needs
The innovation assessment framework is a tool created by the Duke Global Health Innovation Center and VentureWell to assess the support needs of a portfolio of global health innovators. While this framework was developed to help us better support the innovators in our program, this tool can also be helpful to other stakeholders supporting global health innovators as they consider what type of scaling help might be needed.

The tool was designed to help categorize innovations into one of three stages of early development based on key domains deemed critical to the successful growth of an innovator team: market, business model, team, and innovation. For each domain area, challenges and milestones relevant to each stage of development are outlined, and activities needed to reach identified milestones are mapped out. When coupled with additional program tools, such as innovator action plans, the tool can be used to tailor the development and scaling support provided to an innovator team.

The tool can be useful in the following ways:

1. **Accelerator programs**: The framework can help accelerator programs design activities that support the growth of innovator teams. The tool can also provide a data collection framework to evaluate individual innovator progress and the effectiveness of a program in helping innovators progress along their scaling pathway.

2. **Innovators**: The framework can serve as a self-assessment tool for early-stage global health innovators. Innovators can use the tool to conduct a more objective self-evaluation to understand their stage of growth within each of the four domains.

3. **Investors and funders**: The framework can help a funder or investor evaluate an innovator and understand how their backing might best support the innovator’s growth and catalyze impact in the field of maternal and newborn health. The tool can provide insight for a funder or investor as to whether an innovation is a good fit for their portfolio.

We use the tool to continuously tailor the support provided to innovators in our accelerator and regularly improve upon the framework and its integration into our program based on our learnings and experience. We hope that a range of stakeholders can adopt the framework to identify and provide tailored support to help innovators reach key milestones on their pathways to scale.
INTRODUCTION

In the world of global health innovation, the rapidly increasing presence of accelerator programs—accelerators, incubators, and catalytic funding programs—drives the need for frameworks to help make sense of large portfolios of innovations. The innovation assessment framework, developed by the Duke Global Health Innovation Center and VentureWell, was created to inform the design of an accelerator program for 45 innovator teams with promising solutions to critical challenges in the field of maternal and newborn health. The framework can be easily integrated into an accelerator program to help analyze and assess the support needs of an early-stage global health innovation portfolio and can have wide-reaching implications for program design. The applicability of the tool also extends beyond accelerator programs, and can be leveraged by funders, investors, and innovators to support both innovator-specific and cohort-level analysis of an innovation portfolio.

In this publication we provide an in-depth discussion of the innovation assessment framework. Drawing insights from semi-structured interviews with five members of the Duke Global Health Innovation Center and VentureWell (i.e. program implementers), as well as a review of the literature, we aim to:

1) Provide an overview of the innovation assessment framework and how it can be used to assess an innovation or a portfolio of innovations;

2) Discuss why other accelerator programs, innovators, funders, and investors would want to use the innovation assessment framework to support their work; and

3) Share lessons learned from using the innovation assessment framework, including tips for other actors seeking to adopt the framework.

The information we cover in this publication is intended for use by other accelerator programs, such as accelerators or incubators, that play a key role in supporting ideation-stage innovators along their growth pathways. As many existing tools, resources, and research studies are targeted toward funders and innovators, this resource fills an important gap in the field of global health innovation. The learnings we share are also applicable to global health and innovation funders and investors to gain an understanding of how the tool can be used to support portfolio and investment evaluations. Finally, through reading this publication, individual innovator teams and organizations can also leverage the innovation assessment framework to inform their own growth and scaling pathway.

While we provide tips and learnings for employing the innovation assessment framework, program implementers will need to update the tool to reflect both the program’s portfolio and parameters prior to integrating the tool into new or existing workstreams.

1: The inspiration and structure for the innovator assessment framework has been informed by Innovations in Healthcare’s experience evaluating, clustering, and supporting global health innovators, as well as VentureWell’s Venture Development Framework and experience supporting early stage science and technology ventures.

2: For example, resources such as From Blue Print to Scale (Koh, Karamchandani and Katz 2012) and Insights on Scaling Innovation are geared toward the needs of funders, resources such as Idea to Impact (USAID 2015) and Pathways to Scale (USAID 2016) provide a resource for innovators themselves, and Cooper’s Stage Gate Systems is intended for product managers.
Box 1: Building on Existing Areas of Research

The Accelerating SL@B program borrows from USAID definitions of scale, which define scaling as “expanding, replicating, adapting and sustaining successful policies, programs or projects in geographic space and over time to reach a greater number of people” (USAID 2014). The program also borrows the notion that scaling can occur through numerous pathways and is highly context-specific (USAID 2016). Based on this definition, the Accelerating SL@B program seeks to increase progress toward the scalability and sustainability of an innovation.

The tool incorporates decades of experience and prior approaches used by program collaborators, as well as drawing on existing scaling frameworks, such as Idea to Impact (USAID 2015) and Pathways to Scale (USAID 2016). These reports have established important groundwork in highlighting the diversity of pathways an innovator might choose when seeking scale, and in identifying activities that have proven critical to an innovator’s success. The innovation assessment framework also reflects elements of the From Blue Print to Scale framework (Monitor Group 2012), which outlines four key development stages (Blue Print, Validate, Prepare, and Scale). This framework lays out key activities, innovator needs, and milestones at each stage; the Accelerating SL@B program implementers adopted and tweaked this approach by outlining key challenges, activities and milestones at each stage within the innovation assessment framework. The Accelerating SL@B innovation assessment framework was also inspired by the process described in the Stage-Gate Systems (Cooper 1990) framework, in which innovators must undergo parallel activities in order to meet certain criterion (i.e., milestones) and proceed to the next stage.

While building upon these resources, the Accelerating SL@B innovation assessment framework offers several unique attributes that define its particular value within the MNH innovation landscape. First, the framework offers a comprehensive overview of challenges, activities, and milestones that define an innovator’s growth pathway. Resources such as Idea to Impact (USAID 2015) outline key activities that an innovator will need to undertake at each stage, but do not clearly define what challenges these activities might stem from, or what larger milestones might result from successful completion of a given activity.

The innovation assessment framework is also geared toward a relatively early stage portfolio. Frameworks such as Idea to Impact (USAID 2015) and From Blue Print to Scale (Koh, Karamchandani and Katz 2012) both indicate that understanding end-user needs is an activity for the earliest stage innovators. However, the Accelerating SL@B portfolio acknowledges that many innovators, especially those stemming from university or research institutions, might not yet have even identified a target end-user.

While drawing from foundational resources, the critical differences listed above add value for an accelerator program that is charged with determining the support needs of an early stage innovator.
Accelerating Saving Lives at Birth (SL@B) is an accelerator program that seeks to increase the scale, sustainability, and effectiveness of promising innovations in the Saving Lives at Birth Portfolio—with the overarching goal of improving maternal and newborn health (MNH) outcomes across the globe. Accelerating SL@B innovators strive to first identify and fill gaps left by health systems; working to improve health outcomes that occur before and in the 48 hours after birth, the period when the majority of maternal and newborn deaths occur. The Accelerating SL@B program seeks to help these innovations reach scale through ongoing, individualized coaching and mentoring provided by a team of experts in the innovation and global health spheres. All of the support activities for Accelerating SL@B participants aim to help innovators make progress toward achieving scalability and sustainability. Direct innovator support includes:

- **Coaching** from program implementers and other experts in the field of MNH innovation;
- **Tools and resources** (i.e. tools that help identify target audience for communication and to develop commercialization plans);
- **In-person events**, including one annual workshop and one annual showcase; and
- **Virtual support activities** (i.e. webinars and peer community groups).

The Accelerating SL@B portfolio is comprised of innovations and innovator teams at varying stages of organizational and innovation development. Approximately half of the portfolio is relatively early stage innovators who are working on ideation and prototyping of innovations. Saving Lives at Birth grantee goals range from attaining proof-of-concept for their innovation to new market assessment. Many of the innovations stem from research or university institutions and have been created by innovator teams who have excellent technical knowledge of their innovations. These teams frequently need guidance on how to bring an innovation to market. Many innovators are also based within larger institutions, including hospital networks and global non-profits, who must work to prioritize progressing the innovation amidst a range of other organizational work. These innovators working for larger organizations are juxtaposed by those from small companies that are built around the innovation, and thus place greater emphasis on bringing the innovation to scale.

Accelerating SL@B innovations target low-and-middle-income countries in various regions of Africa and Southeast Asia, but the majority of the portfolio is headquartered in North-American and European countries. **Figure 1** provides a visual depiction of the countries where Accelerating SL@B innovators are headquartered and where they are currently working or plan to work to improve MNH outcomes. This misalignment means that innovators often require increased support in order to create a go-to-market strategy and overcome common barriers in market-entry.

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3: Since 2011, the SL@B program has selected promising innovations in maternal and newborn health, supporting them to grow their impact around the world through catalytic grants. The Accelerating SL@B program supports a subset of SL@B innovator teams to build capacity to scale their MNH innovations.

4: The terms “growth” and “scale” will be used interchangeably throughout this thematic brief. We recognize that an innovator can follow many pathways as they seek to grow their innovation. Please see Pathways to Scale (USAID 2016).
As staff from the Duke Global Health Innovation Center and VentureWell (program implementers) considered how to best support innovators in the Accelerating SL@B program, we identified a need to group innovator teams into categories based on similar levels of development. While resources and frameworks exist to assess a portfolio (as outlined in Box 1), our program implementers wanted to make several adaptions to better serve our program needs. Through preliminary discussions with Accelerating SL@B innovator teams, program implementers also noticed misalignment between an innovator’s self-assessment and our assessment of an innovator’s stage of development. We wanted to create an updated tool that could be used by our program implementers and innovators to guide an objective assessment and evaluation of an innovator team’s stage of development.
Overview of the Innovation Assessment Framework

In response to the above challenges, our program implementers developed the innovation assessment framework to support the analysis and assessment of the support needs of the Accelerating SL@B portfolio. We designed the tool as a framework to categorize innovations into three stages of development within an overall early-stage portfolio (see Box 2 for an overview of the three stages).

The tool also identifies four key domains deemed critical to the successful growth of an innovator team: market, business model, team, and innovation. Table 1 provides an overview of the critical support areas defined in each of the three stages. Innovator teams are assigned a stage in each of the four domains, as well as an overall stage of development (see How to use the tool to assess an innovator team). These domains were identified as critical by drawing on institutional knowledge of innovator support from both VentureWell and the Duke Global Health Innovation Center (see Appendix 1 for an overview of the rationale for including each domain in the framework). These domains also serve as a core input to the program’s approach for direct innovator engagement as well as programmatic learning and reflection.

Box 2: Building on Existing Areas of Research

**STAGE 1:** Idea- and prototype-stage innovations and innovator teams that are working on proof-of-concept and beginning to seek a sustainable business model. This cohort is at the earliest stages of product or service innovation development, and the focus of their work is product or service R&D and initial prototype or field-testing to support early stages of decision-making.

**STAGE 2:** Innovation teams that are operational but still need to focus on understanding their target customers, refining their value proposition, prioritizing growth strategies, deepening their market hypotheses and follow-on plans, establishing and validating potential marketing and distribution channels, and developing strategies to drive demand for their products.

**STAGE 3:** More mature innovations and innovation teams that are ready to absorb intensive tailored support in order to scale. Common challenges include defining a go-to-market strategy, acquiring more customers, and strengthening business and financial models.
### TABLE 1: SUPPORT PROVIDED IN THE FOUR DOMAIN AREAS

<table>
<thead>
<tr>
<th>Domain</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market</strong></td>
<td>■ Understanding value chain in target market</td>
<td>■ Validating market</td>
<td>■ Building market awareness and demand</td>
</tr>
<tr>
<td></td>
<td>■ Connecting solution developed in the lab to actual customer demand</td>
<td>■ Understanding of policy and regulatory levers and barriers</td>
<td>■ Expanding into new geographies and segments</td>
</tr>
<tr>
<td></td>
<td>■ Strengthening market assumptions</td>
<td>■ Gaining deeper understanding of sustainable business model</td>
<td>■ Developing scalable business processes</td>
</tr>
<tr>
<td></td>
<td>■ Understanding context of care</td>
<td>■ Understanding unit economics in context of value chain</td>
<td>■ Strengthening business and financial models</td>
</tr>
<tr>
<td><strong>Business Model</strong></td>
<td>■ Developing realistic business model</td>
<td>■ Gaining deeper understanding of sustainable business model</td>
<td>■ Validating business model</td>
</tr>
<tr>
<td></td>
<td>■ Gaining awareness of appropriate funding sources</td>
<td>■ Understanding unit economics in context of value chain</td>
<td>■ Developing scalable business processes</td>
</tr>
<tr>
<td><strong>Team</strong></td>
<td>■ Understanding potential innovator pathways</td>
<td>■ Understanding need for organizational systems and talent sourcing strategies</td>
<td>■ Building organizational capacity for growth</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>■ Addressing design gaps based on customer feedback</td>
<td>■ Translating from technical features to benefits</td>
<td>■ Developing a manufacturing plan that meets scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Securing intellectual property</td>
<td>■ Developing supply chains and distribution networks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Navigating regulatory approvals at country level</td>
<td>■ Validating regulatory strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Developing evidence of effectiveness</td>
<td>■ Developing evidence of effectiveness</td>
</tr>
</tbody>
</table>

For each domain area, the framework identifies challenges and milestones relevant to each stage of development, and maps out activities needed to reach identified milestones. **Box 3** provides the full innovation assessment framework tool.
## BOX 3: THE INNOVATION ASSESSMENT FRAMEWORK

### Key Challenges

<table>
<thead>
<tr>
<th>Market</th>
<th>Business Model</th>
<th>Team</th>
<th>Innovation - Product</th>
<th>Innovation - Service</th>
</tr>
</thead>
</table>

- Understanding value chain in target market
- Connecting solution developed in the lab to actual customer demand
- Strengthening market assumptions
- Understanding context of care
- Developing realistic business model
- Gaining awareness of appropriate funding sources
- Understanding potential innovator pathways
- Addressing design gaps based on customer feedback
- Addressing design gaps based on customer feedback

### Activity

- Conduct research to identify product gap
- Develop product blue print, develop prototype and test
- Conduct research to understand the market gap/need and ecosystem stakeholders
- Conduct research to understand the caregivers and the recipients of care
- Conduct research to identify the innovation's sweet spot
- Develop a funding database to identify potential funders for the innovation
- Review staff roles to assess duties' alignment to the roles
- Analyze the organizational structure and staff appointments to identify additional talent needed
- Review the organization's mission and vision to ensure alignment with the job roles
- Conduct lab tests to ascertain product's functionality
- Develop the innovation’s blueprint for development
- Develop confidentiality agreements to safeguard the innovation
- Develop the innovation’s blueprint for development

### Milestones

- Identified entry point/problem/solution fit
- Identified specific customer segments and key stakeholders
- Articulated value proposition
- Identified pathway to scale
- Have role clarity
- Identified additional roles/skills required on team
- Have alignment of goals, mission, and vision
- Have a functional prototype (reach product or technical proof of concept)
- Defined a minimum viable product (MVP)
- Filed an invention disclosure
- Have a conceptual framework
- Defined a minimum viable product (MVP)
<table>
<thead>
<tr>
<th>KEY CHALLENGES</th>
<th>ACTIVITY</th>
<th>MILESTONES</th>
</tr>
</thead>
</table>
| • Validating market  
  • Understanding policy and regulatory levers and barriers | • Identify a center in the target market and conduct clinical trials  
  • Conduct market research analysis to identify a ready market for market entry  
  • Develop a market entry strategy  
  • Conduct research on the target country to identify potential entry barriers and policy | • Tested initial market entry point  
  • Identified next point of market entry  
  • Determined the marketing strategy to support growth |
| • Understanding need for organizational systems and talent sourcing strategies | • Roll out the innovation in the target market to understand the unit economics  
  • Develop a governance policy and structure to understand needed governance expertise  
  • Identify and develop a stakeholder matrix and plan | • Outlined unit economics  
  • Identified additional funding needs required to scale, and determined a plan to acquire funding |
| • Gaining deeper understanding of sustainable business model  
  • Understanding unit economics in context of value chain  
  • Pressure testing pathway to scale | • Analyze the organizational structure and current talent composition to identify additional talent needed  
  • Develop a governance policy and structure to understand needed governance expertise  
  • Identify and develop a stakeholder matrix and plan | • Identified how and when additional team members will be recruited  
  • Determined governance structure and other organizational systems needed to scale.  
  • Identified key stakeholders |
| • Translating from technical features to benefits  
  • Securing IP  
  • Navigating regulatory approvals at country level  
  • Developing evidence of effectiveness | • Develop and test the prototype in the target market  
  • Conduct research in the target market to understand the IP filling procedure and regulatory approvals  
  • Run clinical trials in target market to validate innovation  
  • Identify and develop a manufacturing and supply chain policy | • Determined a pathway for protecting relevant IP  
  • Identified appropriate regulatory strategy  
  • Tested or clinically validated the innovation  
  • Determined a manufacturing and supply chain strategy |
| • Translating from technical features to benefits  
  • Developing evidence of effectiveness | • Develop and test the MVP in the target market  
  • Run clinical trials in target market to validate innovation | • Tested or clinically validated the innovation |
<table>
<thead>
<tr>
<th>KEY CHALLENGES</th>
<th>ACTIVITY</th>
<th>MILESTONES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market</strong></td>
<td><strong>Build</strong></td>
<td><strong>Refine</strong></td>
</tr>
<tr>
<td></td>
<td>ing market awareness and demand</td>
<td>and executed marketing strategy (marketing budget, spending and campaign ROI, team lead)</td>
</tr>
<tr>
<td></td>
<td>Expanding into new geographies and segments</td>
<td>identified next point of market entry</td>
</tr>
<tr>
<td></td>
<td>Developing scalable business processes</td>
<td>Tested initial market entry point</td>
</tr>
<tr>
<td></td>
<td>Strengthening business and financial models</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Validating business model</td>
<td></td>
</tr>
<tr>
<td><strong>Business Model</strong></td>
<td><strong>Develop and roll out a marketing strategy for scale</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Research</strong> and identify a market expansion strategy</td>
<td>Validated unit economics (i.e. mapping out costs)</td>
</tr>
<tr>
<td></td>
<td><strong>Launch</strong> the innovation in the new market</td>
<td>Obtained appropriate funding for scaling</td>
</tr>
<tr>
<td><strong>Team</strong></td>
<td><strong>Develop</strong> board of governance/ advisory board roles and responsibilities and policies</td>
<td>Developed governance structure</td>
</tr>
<tr>
<td></td>
<td><strong>Develop</strong> job descriptions for each role, training manuals, retention and motivation policies</td>
<td>Developed organizational chart with clearly defined roles and responsibilities and appropriate training</td>
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<tr>
<td></td>
<td><strong>Identify</strong> new talent needed and corresponding recruitment strategies</td>
<td>Determined plan for the recruitment of additional team members</td>
</tr>
<tr>
<td></td>
<td><strong>Develop</strong> human resource/stakeholders policies and procedures</td>
<td>Developed stakeholder management system and processes</td>
</tr>
<tr>
<td><strong>Innovation - Product</strong></td>
<td><strong>Develop</strong> a manufacturing plan that meets scale</td>
<td><strong>Execute</strong> manufacturing plan at scale</td>
</tr>
<tr>
<td></td>
<td><strong>Develop</strong> supply chains and distribution networks</td>
<td>Determined supply chain strategy</td>
</tr>
<tr>
<td></td>
<td><strong>Validate</strong> regulatory strategy</td>
<td>Acquired appropriate regulatory approvals, licenses, permits, and strategy</td>
</tr>
<tr>
<td></td>
<td><strong>Develop</strong> evidence of effectiveness</td>
<td></td>
</tr>
<tr>
<td><strong>Innovation - Service</strong></td>
<td><strong>File</strong> for regulatory approvals, IP, patent, and permits in the target country</td>
<td>Acquired appropriate regulatory approvals, licenses, permits, and strategy</td>
</tr>
<tr>
<td></td>
<td><strong>Populate</strong> the data/impact matrix to evaluate effectiveness</td>
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</tbody>
</table>
The innovation assessment framework can add value to an accelerator program in a multitude of ways. Designing innovator engagement activities around the innovation assessment framework domains allows for a comprehensive support approach. The framework provides a mechanism to ensure program implementers address each of the four domains during engagement activities, thereby providing support that ensures the holistic growth of an innovation. As some innovators may be further along in certain domain areas than others, using the innovation assessment framework allows program implementers to provide targeted support to innovator teams in their weaker domains to move their innovation forward overall.

Helping innovators set goals in each of the four domains enables them to move strategically along their growth pathways as they strive to improve MNH outcomes. Innovators—in particular, early stage innovators—tend to be preoccupied by details that are specific to their innovations, such as technical challenges or demonstrating effectiveness. Since innovators are typically experts in the area their own innovations, accelerator programs provide the most value by coaching to support growth in other critical domain areas, such as developing a sustainable business model, creating a realistic strategy for market entry, or ensuring that a strong team structure is in place. The other domain elements are important to focus on in parallel to the technical elements of an innovation as a comprehensive growth strategy early in the development stage can create a strong foundation for the innovation to scale sustainably. The innovation assessment framework enables program implementers to guide innovators to set goals that lead to the holistic growth of an innovation.

Using a tool such as the innovation assessment framework to structure data collection can also help an accelerator program evaluate both individual innovator progress and the effectiveness of the program. For example, by tracking innovator progress toward key milestones, program implementers can monitor how each innovator is moving along growth pathways, and in which domains they are making the most progress. Zooming out, program implementers can also assess how effective programs are by monitoring portfolio-level progress across the four domains.

The described approach provides valuable insight for program design, including the types of expertise needed for innovator support, as well as budgetary requirements for the prioritization of programmatic resources. Knowledge gained from use of the framework continues to serve as an invaluable resource as our Accelerating SL@B program implementers strive to match the right resources to the right innovators at the right time. Use of the framework helps our program implementers identify gaps in support and dynamically adapt engagement activities to best meet innovator needs—at both the innovator-specific and the portfolio levels. A continuous learning approach should be coupled with intermittent program surveys and ongoing conversation with innovator teams to collect innovator feedback and to ensure that all program adaptions are innovator-centric.
The innovation assessment framework can serve as a self-assessment tool for early-stage global health innovators. Innovators can use the tool to conduct a more objective self-evaluation to understand their stage of growth within each of the four domains. Through taking the time to critically evaluate their stage in each of the four domains, innovators can also assess the need to acquire coaching or resources that might be needed to holistically scale the innovation.

The framework can also help innovator teams clearly articulate their progress as well as their key challenges. Being able to identify and discuss these key achievements and gaps in development, supports strong and effective communication practices with potential funders, investors, partners, and accelerator programs where support (both financial and non-financial) is needed. For example, an innovator who identifies their challenge to build market awareness and demand through use of the innovation assessment framework can complete a grant application in which they clearly lay out their objective (i.e. the milestone linked to the identified challenge) to develop and roll out a marketing strategy for scale with the goal of developing a refined and executed marketing strategy (including a marketing budget, spending and campaign ROI, team lead).

For innovators who are new to the process of scaling an innovation, the innovation assessment framework serves as a roadmap for what lays ahead. Through referencing the tool, innovators have greater insight into what challenges and speedbumps they can expect to encounter, and what activities can be undertaken to overcome the challenges. Of course, the framework is not an exclusive guide to scaling an innovation, and needs to be accompanied by tailored coaching and support to be most effective, but undergoing regular re-assessment of stage can help an innovator to track their growth. Referring back to the framework can serve as a reminder for innovator teams that many activities need to be undergone in parallel, in order to create a strong foundation upon which an innovation can scale.

The applicability of the innovation assessment framework also extends to funders and investors. Global health innovators typically seek to reach base-of-pyramid populations in new geographies, which often requires employing non-traditional business models and scaling pathways.

In order for an investor or funder to know how to best support an innovator's growth through a multitude of unique scaling pathways, a funder or investor needs to have a strong understanding of the innovator's needs, and of how those needs might change and evolve over time (Monitor, 2010). The necessity of having a strong grasp on the innovator's needs is particularly relevant due to changing trends in global health financing, in which donors are moving away from traditional, grant-based funding, and moving toward alternative forms, including milestone-based funding, and catalytic funding (USAID, 2017). Evaluating an innovator using the framework can help a funder or investor to understand how their backing can best support the innovator's growth and to catalyze impact in the field of maternal and newborn health.

The tool can also be used as a framework for a funder or investor to whether an innovator is a good fit for their portfolio. The tool can be applied as a framework to an investor’s overall portfolio by objectively staging each innovator, enabling a funder or investor to easily apply the framework to a potential investee to assess the innovator's fit.
A adoption of the innovation assessment framework tool should include the development of an implementation process. We used the tool to assess each innovator team in the Accelerating SL@B portfolio and to continuously monitor an innovators’ progress along the stages of development in each of the four domains. The process can be adapted to fit the specific case of any intended users, including accelerator programs, funders, investors, and innovators. See Appendix 4 for case studies outlining the practical application of the tool.

Initial innovator staging

The innovation assessment framework was first used to cluster innovators by stage of development (from stage 1 to 3, as described in Box 2) at the onset of the Accelerating SL@B program. First, based on in-depth knowledge acquired from managing the grant of each team, one of the Accelerating SL@B program funders evaluated and assigned a stage to each innovator in the portfolio in all four key domains: market, business model, team, and innovation. The framework was used to identify which key milestones had been reached by an innovator organization—and what key challenges it faced in reaching subsequent milestones to help make the most appropriate staging assignment. Program funders assessed the innovators’ stage of growth in each of the four domain areas, then recommended an overall staging assignment for each innovator.

Our Accelerating SL@B program implementers completed the same staging exercise in parallel to the program funders, supported by results from a self-assessment survey administered to each innovator team. The survey was designed to collect information to validate the program implementers’ staging suggestions in each of the four domains and overall. For example, we asked innovators to describe how they deliver, or intend to deliver, their innovations to their target markets in order to assess understanding of their business model. We also asked innovators to provide a self-assessment of their stage in each of the four domain areas. This self-assessment component helped our program implementers understand how innovator teams perceived their own growth and stage of development. After the surveys were completed, program implementers conducted an intake call with each innovator team to gain more information on the survey data and a deeper understanding of the key challenges faced by each team. Upon completion of the intake survey and call, program implementers provided a staging recommendation.

While there is no exact formula to assign an overall stage, innovators further developed in the areas of market, business model, or team were more likely to be assigned a later stage than those further developed in the innovation domain. We based this rationale on our program aim, which is to support the development of a strong foundation upon which an innovation can scale, rather than on furthering the technical elements of an innovation.

Rather than asking innovators to provide a self-assessment based on a scale of 1-3, more context was provided by using a scale of Just Starting Out (Stage 1), Validating (Stage 2), and Significant Growth (Stage 3).
We tested and confirmed the validity of the framework through a comparison of the staging recommendations made by the program implementers (which incorporated results from the innovator self-assessment) and funders. The results of this comparison showed a 90% correlation between the two assessments: the staging assignments matched for 36 out of 40 innovators (note that five innovator teams joined Accelerating SL@B after the initial launch of the program). To address discrepancies in the staging of four of the innovator teams, we held in-depth discussions with the program funders to agree on an appropriate level of support.

Ongoing assessment through engagement

As the tool captures the innovator’s staging at a point in time, we found it useful to conduct regular assessments to understand ongoing progress and challenges. Our process of assessment—and direct coaching—is aided by a stage-specific tool called an action plan. The action plan prompts innovators to set achievable goals by asking strategic questions that are tied to challenges outlined in each of the four domains in the framework (see Appendix 2 for a sample tool). As each challenge is linked with a milestone on the framework, we have innovators create a plan to address these challenges in order to enable them to reach key milestones and progress along their scaling pathways. Figure 3 below provides a sample of the market domain of the stage 1 (early stage) action plan template. In the example provided, the questions are related to understanding the value chain in the target market. Activities from the matrix are formatted as a prompt in the action plan and situated under a column titled “what do you need to do.” Innovators can then respond to the prompt by providing more details about how that activity will be conducted for their innovation.

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Challenge to be addressed</th>
<th>What do you need to do...</th>
<th>Answer</th>
<th>Monthly Goal (check which months you will work on the listed activities)</th>
<th>Month milestone will be achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKET</td>
<td>Understanding value chain in target market</td>
<td>Conduct desk research and stakeholder interviews to understand the value chain?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connecting solution developed in the lab to actual customer demand</td>
<td>Conduct stakeholder interviews about the prototype in the target market?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strengthening market assumptions</td>
<td>Identify the market gap/pitch and ecosystem stakeholders?</td>
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<td></td>
<td>Understanding context of care</td>
<td>Conduct research to understand the healthcare system, the healthcare providers, and users, and beneficiaries?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Each action item also includes a timeline to help the innovator think through when they will address the identified challenge. The process is repeated for each challenge within the innovator assessment framework. Innovators create their action plans with the support of the program implementers during an annual in-person workshop. Although we ask innovators to map out an action plan for the year, we consider the plans to be “living documents,” that can be changed and adapted in response to a change in scaling strategy.

Monitoring ongoing progress updates, milestone achievement, challenges in reaching a milestone, and changes in innovators’ action plans enables program implementers to continuously re-assess innovators’ staging in the four domains. See Appendix 3 to understand how this process can be operationalized, including how tracking tools can be used to facilitate the process of ongoing assessment.
While initially designed to help assess and analyze an early-stage portfolio, the implications of the innovation assessment framework have had implications for the design of program activities, including the engagement approach. The larger role of the framework in the Accelerating SL@B program has brought several key learnings, some of which have resulted in adjustments to the framework and the processes we created to use the framework.

An innovation assessment framework should link milestones and challenges with clear and actionable activities. We added the activity column into the innovation assessment framework following the inception of the program; the original framework consisted of only innovator challenges and milestones at each of the three stages. While these are important landmarks along the scaling process, the utility of the tool increases when the two are linked with actionable tasks. Linking enables our program implementers to not only diagnose challenges, but also to guide innovators through the steps needed to overcome challenges. This shifts the focus of the framework from what stage the innovator is in to how innovators can move along the stages.

The innovation assessment framework should serve as the basis of an innovator action plan. In Year One of the Accelerating SL@B program, the prompts laid out in the action plan were similar to key milestones identified in the innovation assessment framework, but not identical. Resulting misalignment made it difficult for us to monitor innovator progress, particularly when an innovator's achievement of an action plan goal did not necessarily result in reaching a milestone identified in the framework. In Year Two, we directly inserted the columns from the innovation assessment framework into the innovator action plans (see Appendix 2). The new design of action plans ensures direct correlation between the two tools to easily monitor innovator progress across the stages of development. The design also provides a more tangible understanding to innovators of how completing activities in the action plan can lead to progress and the achievement of important developmental milestones.

Transparency about the use of the assessment framework and its value in helping an innovator to scale is important for innovator buy-in. During Year One of the program, our program implementers only used the tool internally, without communication of the framework and its use in the program to innovator teams. While we assigned innovator stages without any value judgement and with the aim of providing targeted support, several innovators expressed displeasure after hearing their stages at an in-person workshop. This tension often occurred due to the lack of positive correlation between the innovator’s stage and the number of years that an innovator team had been working to progress their innovation. Innovators who have been working for numerous years often feel that they should be considered “later stage,” even if they are still conducting foundational work. More strategic communication about the tool’s purpose, including its particular use within the engagement strategy, and its use to chart progress and success of the innovators, could have eliminated some of the disconnect that arose between the program implementers and innovator teams. Communication helps demonstrate the importance of the action planning and coax innovators to think through and complete the tool.
In Year Two of Accelerating SL@B, we introduced a second framework based on level of engagement with the program to categorize innovator support. We categorized innovators in the program as A, B, or C depending on their level of active participation in the program (A being highest level of engagement and C being lowest level of engagement). The categories are fluid, meaning that innovators can move between categories each month to reflect changing levels of participation. The secondary tiering helps us to assess where support efforts should be focused. For example, if most Stage 1 innovators are in tier A during a particular month, a webinar directly targeting Stage 1 innovators can be incorporated into the month’s engagement activities. While not directly related to the innovation assessment framework, programs or individuals planning on adopting the tool should consider assessing their portfolio on a relevant secondary axis in addition to the stages outlined in innovation assessment framework.

These preliminary lessons learned have helped us to continuously adapt the Accelerating SL@B program to better meet the needs of the innovators. Being thoughtful in capturing these learnings and iterating accordingly will help the program reach its goal of providing tailored support that helps move innovators toward scalability to improve maternal and newborn health outcomes.

CONCLUSION

The innovation assessment framework and its integration in the Accelerating SL@B program has been helpful for our program implementers, program funders, and most importantly, the innovators that we support. Through integrating the tool into a support program, as we did in the Accelerating SL@B program, it can serve as a useful framework for understanding innovator support needs, and provide a step-by-step process for innovators to overcome challenges and reach key milestones on their paths to scale.

We will continue to reflect upon and discuss the tool and its integration within the program both internally and with program partners and innovators. By actively working to gather more feedback and lessons learned, we will continue to improve the tool based on our program experiences to provide the best scaling support.
REFERENCES


USAID. 2016. “Pathways to Scale: A guide for early-stage global health innovators on business models and partnership approaches to scale-up”. Center for Accelerating Innovation and Impact.


APPENDIX 1: Why the Four Domains?

As noted previously, the four domains serve as a foundational framework for the Accelerating SL@B program. The concentrated focus on these four domain areas begs the question: why were they identified as critical to an innovator’s success?

**MARKET**
In the frameworks assessed during the creation of the innovation assessment framework, market is a critical focus area for an innovator’s growth pathway and sustainability. In fact, stronger focus on market activities is positively associated with project success; and conversely, lack of market-focus is commonly attributed to failure to launch and grow an innovation (Cooper, 1990). Market is especially critical for global health innovators working to meet the needs of populations in hard-to-reach, yet critical geographies. While there may be a clinical need for a particular innovation, this does not always align with demand. Many innovators must forge new pathways as they seek to identify customer segments, conduct market analyses, and make challenging-yet-critical decisions about market-orientation.

**BUSINESS MODEL**
By laying out a plan for an innovation to move along its intended growth pathway, including assumptions underpinning an innovator’s pathway to growth, the business model provides a critical foundation upon which an innovation can succeed and be sustainable. Without a sound business model, an innovation cannot diffuse into its targeted geography to make its intended impact. In fact, focus on business model remains critical throughout an innovation’s journey as the strategy needs to be continuously tested and retested (Magretta, 2002). Again, this is a domain continuously represented in other scaling frameworks, such as Idea to Impact (USAID 2015) and From Blue Print to Scale (Monitor Group 2012).

**TEAM**
Innovations do not move into the market without people driving them forward. In other frameworks, such as Idea to Impact (2015) and From Blue Print to Scale (2012), elements of team are interwoven into other domain areas. However, the Accelerating SL@B model places continuous emphasis on team, as this factor serves as a critical foundation to grow any innovation (Worsham, Clark and Fehrman 2017). Key challenges, milestones and activities occur at every stage of an innovation. At early stages, skillsets need to be aligned with the growth pathway, while later-stage innovators must ensure proper governance structures are in place (Worsham, Clark and Fehrman 2017).

**INNOVATION**
The innovation itself is a central component to consider when planning an accelerator program. While the innovators themselves are the experts in their specific technology, service or device, most teams will need guidance in navigating the ongoing steps to progress technical components of an innovation. For example, an innovator may need to focus on pilot testing and integrating user feedback—or developing evidence of effectiveness (La France et al. 2006).
APPENDIX 2: Innovator Action Plan Template

Innovator organization: 
Name of Individual(s) completing work plan: 
Date: 

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Challenge to be addressed</th>
<th>What do you need to do to...</th>
<th>Answer</th>
<th>Monthly Goal (check which months you will work on the listed activities)</th>
<th>Month milestone will be achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market</td>
<td>Identified entry point / problem / solution fit</td>
<td>Understanding value chain in target market</td>
<td>Conduct desk research and stakeholder interviews to understand the value chain?</td>
<td>Jun Jul Aug Sep Oct Nov Dec Jan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connecting solution developed in the lab to actual customer demand</td>
<td>Conduct stakeholder interviews about the prototype in the target market?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identified specific customer segments and key stakeholders</td>
<td>Strengthening market assumptions</td>
<td>Identify the market gap and need and ecosystem stakeholders?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Understanding context of care</td>
<td>Conduct research to understand the healthcare system, the healthcare providers, end users, and beneficiaries?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Model</td>
<td>Articulated value proposition</td>
<td>Developing realistic business model</td>
<td>Develop and test hypotheses about the customer’s problem and key differentiators?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identified pathway to scale</td>
<td>Gaining awareness of appropriate funding sources</td>
<td>Develop a funding database to identify potential funders and funding types for the innovation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team</td>
<td>Have role clarity</td>
<td>Understanding potential innovator pathways</td>
<td>Review staff roles to assess duties alignment to the role?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identified additional roles/skills required on team</td>
<td></td>
<td>Analyse the organizational structure and staff appointments to identify additional talent needed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have alignment of goals, mission and vision</td>
<td></td>
<td>Develop shared mission and vision to ensure alignment with all team members?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation - Product</td>
<td>Have a functional prototype (each product or technical proof of concept)</td>
<td>Addressing design gaps based on customer feedback</td>
<td>Conduct lab or preliminary field tests to ascertain product functionality?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Defined a minimum viable product (MVP)</td>
<td></td>
<td>Develop the innovation’s blueprint for development?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Filed an invention disclosure</td>
<td></td>
<td>Develop confidentiality agreements to safeguard the innovation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation - Service</td>
<td>Have a conceptual framework</td>
<td>Addressing design gaps based on customer feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Defined a minimum viable product (MVP)</td>
<td></td>
<td>Develop the innovation’s blueprint for development?</td>
<td></td>
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</tr>
</tbody>
</table>
APPENDIX 3: Data Tracking Strategies for Ongoing Innovator Assessment

Through regular engagement with innovators in the portfolio, Accelerating SL@B program implementers work to monitor how innovators are moving along their growth pathways against activities identified in their action plans. After each call or check-in, program implementers note whether an innovator has completed, progressed, made no progress, or abandoned an activity listed in the action plan. If an activity has been completed, program implementers indicate whether the innovator has achieved the accompanying milestone. This system helps program implementers to quickly identify when innovators experience setbacks in order to be most responsive to support needs. The data on innovator progress are captured and securely stored in REDcap, an online database that enables program implementers to access data on both innovator-specific and portfolio-level progress (see Figure 4 for a small excerpt of the data collection tool).

FIGURE 4: SAMPLE OF REDCAP DATA COLLECTION FORM FOR MONITORING INNOVATOR PROGRESS TOWARD TEAM MILESTONE 1 FOR A STAGE 1 INNOVATOR TEAM.

<table>
<thead>
<tr>
<th>Team activity 1: [t_activity1_s1]</th>
<th>Completed</th>
<th>Progressing</th>
<th>Delayed</th>
<th>Abandoned</th>
<th>N/A</th>
</tr>
</thead>
</table>

Provide additional details related to the activity.

Indicate why the activity is delayed or has been abandoned.

Indicate plan for course correction.

<table>
<thead>
<tr>
<th>Has the innovator achieved team milestone 1?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Milestone: Have role clarity

Monitoring ongoing progress updates, milestone achievement, challenges in reaching a milestone, and changes in the innovator’s action plan enables program implementers to continuously informally re-assess an innovator’s staging in the four domains.

These ongoing informal assessments should also be coupled with formal bi-annual or annual assessments to capture an innovator’s current stage of growth. Formal assessments can be completed by carefully reviewing an innovator’s action plan to re-assess which milestones have been met and which key challenges the innovator is currently facing. This process can help program implementers determine whether an innovator has moved into the next stage of development, and more importantly, can help detect any support gaps that have developed and need to be addressed through the engagement strategy.
APPENDIX 4: Case Studies

Case I – Team

A technology-based innovator developed a mobile application for community health workers that supports screening and counseling of pregnant women and post-partum follow-up using clinical algorithms. The innovator was operating in Africa and had a goal to scale globally through standardization of processes. To achieve this goal, the innovator developed programming tools to ensure quality and standard implementation of the innovation during scale-up. However, the innovator faced challenges in introducing the tools and getting buy-in from the team, creating the potential to hinder achievement of the organization’s scaling goals.

Using the innovation assessment framework as a guide, program implementers worked with the innovators through regular check-in calls to identify that the team was lacking the human resources needed to support scale. Program implementors recommended the development of a human resources policy to guide recruitment and onboarding, as well as capacity-building of personnel to facilitate buy-in. These actions would enable the innovator to train the personnel on how to implement the solutions translating into the achievement of scaling the innovation globally.

Case II – Market

A non-governmental organization developed a health system capacity building program to help health workers prevent newborn deaths. The innovation saw an increase in the health workers’ quality improvement skills in intrapartum, postnatal care, and neonatology which indicated an increase in the quality of care administered to patients. The innovator rolled out their innovation in several districts in the country of operation. The stage 3 innovator aimed to expand the innovation nationally and into new markets but lacked necessary financing to support this scaling goal.

To mitigate this challenge, program implementers used the innovation assessment framework to identify two actions: 1) develop an expansion strategy and 2) develop financial projections. The program implementers worked with the innovator to develop an expansion strategy and financial projections that clearly outlined potential countries the innovation could expand to and the need for funding to support setup and operationalize the innovation nationally and in new markets.

Key Note: Some innovations might be at Stage 3 (overall) but face stage 1 or 2 challenges in one of the four domains highlighted in the assessment framework. It’s therefore key for intermediaries supporting innovators to explore innovator challenges in depth to identify the exact activities to propose.