Digital Impact Alliance

BEYOND SCALE

How to make your digital development program sustainable

BEYOND SCALE | Table of Contents

Strategy	. 23
Key steps	
1. Assess the health of your digital program	26
2. Answer strategic questions about your digital program	32
3. Identify risks and prepare for change	38
4. Revise strategic plans of each aspect of your digital program for achieving scale and sustainability	42
Business model	. 49
Key steps	
1. Understand what the changing landscape means for your digital solution	52
2. Estimate the total cost of owning your digital solution	58
3. Identify who is going to pay for the next phase of your digital program	62
4. Forecast revenue for your digital program	68
5. Determine time to financial sustainability	72
6. Develop a case to secure investment	76
Legal, policy and regulatory	. 83
Legal, policy and regulatory	. 83
 Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance 2. Ensure a flexible contracting approach to accommodate changes 	. 83
 Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 	. 83
 Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance 2. Ensure a flexible contracting approach to accommodate changes 3. Clarify ownership of intellectual property 4. Review software, hardware and content licensing terms 	. 83 86 90 96 100
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability	. 83
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements.	. 83 . 86 . 90 . 96 . 100 . 102 . 106
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements.	. 83 . 86 . 90 . 96 . 100 . 102 . 106 . 119
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements. Solution design Key steps 1. Use a human centered design approach to reassess your user requirements.	. 83 . 86 . 90 . 96 . 100 . 102 . 106 119
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements. 7. Solution design Key steps 1. Use a human-centered design approach to reassess your user requirements. 2. Consider external factors that may change your existing solution design	. 83 . 86 . 90 . 96 . 100 . 102 . 106 119 . 122 . 126
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements. 7. Use a human-centered design approach to reassess your user requirements. 2. Consider external factors that may change your existing solution design. 2. Prioritize new factures and set targets	. 83 . 86 . 90 . 96 . 100 . 102 . 106 . 119 . 122 . 126 . 120
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements Solution design Yey steps 1. Use a human-centered design approach to reassess your user requirements 2. Consider external factors that may change your existing solution design 3. Prioritize new features and set targets	. 83 . 86 . 90 . 96 . 100 . 102 . 106 . 106 . 122 . 126 . 130 . 122
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability 6. Review and update service level agreements. 7. Clarify steps 1. Use a human-centered design approach to reassess your user requirements. 2. Consider external factors that may change your existing solution design. 3. Prioritize new features and set targets 4. Plan your technical development for sustainability at scale	. 83 . 86 . 90 . 96 . 100 . 102 . 106 . 106 . 122 . 126 . 130 . 132 . 122
Legal, policy and regulatory. Key steps 1. Assess the impact of evolving laws, policies and regulation on compliance. 2. Ensure a flexible contracting approach to accommodate changes. 3. Clarify ownership of intellectual property. 4. Review software, hardware and content licensing terms 5. Clarify, limit and manage liability. 6. Review and update service level agreements. Solution design Key steps 1. Use a human-centered design approach to reassess your user requirements. 2. Consider external factors that may change your existing solution design. 3. Prioritize new features and set targets 4. Plan your technical development for sustainability at scale 5. Enhance your development processes if you decide to build your solution	. 83 . 86 . 90 . 96 . 100 . 102 . 106 119 . 122 . 126 . 130 . 132 . 138 . 138

BEYOND SCALE | Table of Contents

Roll out
Key steps
1. Build project management foundations for scale
2. Plan for sustainable technical support at scale
3. Adapt training, monitoring and supervision programs for scale and sustainability 166
4. Optimize and expand your marketing to acquire new users at scale 170
5. Develop sustainable, cost-effective distribution channels at scale
Human capacity
Key steps
1. Reassess your digital program's human resource strategy
2. Build a staff plan to enable sustainable scale
3. Bring the right people on board to deliver 200
4. Share knowledge to build skills 204
5. Express, model and reinforce desired behaviors
Partner relationships
Key steps
1. Assess your digital program's existing partnerships
2. Identify potential new partners
3. Update agreements and revise governance structures
4. Transfer knowledge to your partners

BEYOND SCALE Acknowledgments

Commissioned and led by the Digital Impact Alliance (DIAL), *Beyond Scale* was developed with BBC Media Action, Esoko, Vital Wave and the Johns Hopkins University Global mHealth Initiative, along with critical contributions from the numerous interviewees and reviewers listed below.

The vision for this guide emerged from discussions between DIAL and BBC Media Action. DIAL would like to thank Sara Chamberlain, in particular, and the entire BBC Media Action team. Sara brought the vision for the guide to DIAL, in early 2016, as DIAL was being established. Sara has remained a key intellectual driver behind ensuring the toolkit is grounded in the realities of country-level implementations and their many lessons can be shared to help digital development practitioners.

DIAL provided sponsorship, funding, partnership coordination, review and final production of the guide. Interviews, writing and testing of the guide were conducted by both Vital Wave and BBC Media Action. Vital Wave also conducted the research, developed graphics and multimedia (in collaboration with BBC Media Action), and synthesized and compiled the guide's components. Reviews and contributions of key examples, templates and other resources were provided by the Johns Hopkins University Global mHealth Initiative and Esoko.

We would like to thank the Bill & Melinda Gates Foundation, the Swedish International Development Agency and the U.S. Agency for International Development for their generous support in making this guide possible. Special acknowledgments are due to the following contributors (listed by affiliation and surname). The opinions contained in this guide are solely those of the authors and may or may not be shared by others who contributed to it.





(esoko



JOHNS HOPKINS UNIVERSITY Global mHealth Initiative Acommunity of Excelence in inHealth Research, Imovation and Leadership

Core partners

Sara Chamberlain, Tanmay Guha Roy, Priyanka Dutt, and the BBC Media Action team in New Delhi

Wameek Noor, Kate Wilson, Melissa Johns, Jeff Wishnie and David McCann, Digital Impact Alliance (DIAL)

Simone Fugar, Axel Stelk, Hillary Miller-Wise and the entire team at the Esoko, Insyt, and Tulaa offices in Ghana and Kenya

Dr. Alain Labrique, Dr. Smisha Agarwal and Dr. Amnesty Lefevre, Johns Hopkins University Global mHealth Initiative

Derek Treatman, Brendan Smith, Chris Lukolyo, Julie Pohlig, Leah Gatt and Brooke Partridge, Vital Wave

Other contributors

Benjamin Winters, Akros Professor Dr. Abul Kalam Azad, Bangladesh Directorate General of Health Services Ajai Adusumilli and Sai Rahul, BeeHyv Erica Layer, D-tree Selorm Adadevoh, Digicel Rikin Ghandi, Digital Green Jonathan Jackson, Neal Lesh, Stella Luk and Krishna Swamy, Dimagi James Mwangi, Echo Mobile Kirsten Gagnaire, FSG Dominick Atweam, Ghana Health Service Natalia Pshenichnaya, GSMA Peter Benjamin, HealthEnabled Nora Oleskog Tryggvason, Humanitarian Innovation Fund Mafalda Castro Guimaraes, IESE Business School, University of Navarra Ravi Karin, IMImobile Amajit Mukherjee, International Center for Research on Women (ICRW) Annie Neo Parsons, Jembi Health Systems Neha Madan and Kapil Sapra, Kapil Sapra & Associates Dr. Cathy Mwangi, mHealth Kenya Erik Luttjehuizen, MR. SOLAR Breese McIlvaine Arenth and Dr. Chilunga Puta, PATH Cees Hesp, PharmAccess Luke Shankland, Praekelt Foundation Kenneth Muhangi, Signum Advocates Brent Chism, TaroWorks Hee Sung Kim, United Nations Capital Development Fund (UNCDF) Edmund Page, Xavier Project



Authors' Note

Beyond Scale details key questions and challenges that nongovernmental organizations (NGOs) and social enterprises face when scaling and sustaining digital development programs.

It is particularly relevant for programs at the four-to-five-year mark, which some describe as the 'valley of death'.

It shares learning from practitioners who have made this journey, navigating pitfalls while pursuing alternative pathways to scale and sustainability. These include replicating programs in new geographies to achieve greater economies of scale, and diversifying products and services to deepen impact and create new income streams.

Beyond Scale also shares practical guidance from practitioners who have transitioned program ownership to government, or are covering costs through user fees or private-sector investment. While there are guides and toolkits available to plan the initial implementation of a digital development program, there are fewer guides for organizations at this later stage of maturity that examine both public- and private-sector routes to scale and sustainability across sectors (e.g., health, agriculture). We recognize that every digital development program is unique. Each goes through different phases, and the phases are triggered by different circumstances. However, we found that no matter what sector or geography we examined, there are some questions and approaches that are remarkably common.

Beyond Scale:

- · Provides key steps for addressing relevant questions and challenges
- · Offers tested templates and tools the reader can apply
- Provides real-life examples of how others have tackled similar problems
- Suggests a set of curated resources where the reader can learn more about topics integral to scale and sustainability

Our hypotheses and findings, based on our review of more than 400 books, articles and interviews, are intended to spark a dialogue about how mature digital development programs can prepare for scale and sustainability.

There are no one-size-fits-all answers to the challenges faced in the next phase of digital development, and this guide is not intended as a peer-reviewed or academically rigorous inquiry into all issues organizations deal with at this stage. Rather, we have focused on suggesting frameworks and providing examples and templates for practitioners to stimulate thought and discussion. We included experiences from multiple sectors, geographies and perspectives from nonprofit, for-profit and government-based programs.

We hope that by documenting these perspective and experiences, it might help your program or organization make a smooth transition into your next phase. Most importantly, we want to hear from you. Please contribute your feedback and examples to **beyondscale@digitalimpactalliance.org**



Introduction

Some time ago, leaders of two very different digital programs sat 5,500 kilometers apart, thinking about the future. One led a nonprofit digital health program for new and expecting mothers in India; the other led a for-profit digital agricultural program for farmers in several African countries. While they worked in different sectors and deployed different technological solutions, they had similar questions about their program's growth trajectory, including how to ensure not just scale but sustainable impact for years to come.

In Delhi, BBC Media Action had just begun planning the transition of three mobile health education services to the Government of India. The organization had already scaled two of its services to three states in collaboration with local government, but the program was still dependent on donor funding for survival. The program was in year four of its five-year grant cycle, and BBC Media Action had less than two years to develop strategies for transitioning each service to government, secure government buy-in at the state and national levels, plan and cost the transition process and raise funds to pay for it.

Many questions arose: What strategic approaches to transitioning the services to government would be most effective? How much would it cost to scale and run the services? What costs could the government cover in compliance with its procurement policies, and what costs would need to be covered by donors? How would the solution design need to change to balance the need for localization with the requirements of scale? How could contracts with mobile operators be transitioned to government, and what service level agreements would the government require? Would BBC Media Action's existing technical partnerships be able to accommodate these changes, or would new partnerships be needed? These were just a few of the questions being asked, with many more yet to be discovered.

At the same time in Nairobi, Esoko, a social enterprise providing mAgri services to farmers, was contemplating its future and how to prioritize its scant resources. After a successful start delivering donor-subsidized services in Ghana, the company's growth had slowed as it reached market saturation.

Looking for new strategies to ensure financial sustainability, Esoko recognized potentially high demand for its services in other countries. Expansion to new countries would increase the number of communities Esoko served, but it would also require experimenting with new business models and diversifying its service offering. The Esoko team faced a challenge familiar to software entrepreneurs the world over. How would changes to its services affect payment processes and vice versa? What new legal and regulatory issues would the company face as it entered new markets in Kenya and Uganda? How would they affect current employees? What activities should they outsource, and which skills would they need in-house?

Over the past decade, the number of public- and private-sector programs providing digital solutions to underserved communities in areas like agriculture, education, financial services, health and resilience has increased exponentially. In 2009, the GSMA estimated there were just 400 such programs worldwide. By 2015, this number had swelled to over 1,500.¹ Rapid growth has been driven by an explosion in mobile phone use: the majority of the world's population now has access to a mobile device.

In the last decade, practitioners have learned a lot of hard lessons about designing, developing and implementing effective information and communications technology for development programs, also known as digital development. Many excellent guides have been published about best practices and guiding principles for developing new solutions, based on insights gained from innovative pilot projects.

Guidance has been developed around monitoring, measuring and evaluating the impact of digital development investments. There is now a growing evidence base identifying what does and doesn't work. What is scarcer, however, are resources documenting the experiences of implementers who have taken their digital development programs beyond the four-to-five-year mark to achieve significant scale and varying degrees of financial sustainability.

This guide presents the experience of two such organizations, BBC Media Action and Esoko, as well as those of other implementers, including Akros, Bangladesh Directorate General of Health Services, BeeHyv, Cell-Life, Digital Green, Dimagi, D-tree, Echo Mobile, HealthEnabled, IMImobile, Jembi Health Systems, Johns Hopkins Global mHealth Initiative, Kapil Sapra & Associates, Kopo Kopo, mHealth Kenya, MR. SOLAR, PATH, Praekelt Foundation, Signum Advocates, SolarNow, TaroWorks, United Nations Capital Development Fund (UNCDF), Vital Wave and Xavier Project.

It explores the processes of scaling through **replication**, where the experience of a digital solution is **replicated** for more users in more geographies, and scaling through **diversification**, where an organization **diversifies** its products and services to offer new solutions to achieve scale. And finally, *Beyond Scale* examines both **public**- and **private-sector routes to financial sustainability**, illuminating the complex and transformative journeys that NGOs are making to secure the futures of their digital programs.

Beyond Scale's target audience is implementers in digital development organizations. The guide is specifically tailored for in-country NGO staff who have already successfully piloted digital development solutions and are now exploring not just how to scale them, but how to make them sustainable. This guide will also be especially useful for NGOs, digital development companies and social enterprises facing similar challenges.

¹The Mobile Economy 2015, https://www.gsma.com/mobileeconomy/archive/GSMA_ME_2015.pdf

The guide addresses key questions, including:

- How might your program strategy need to change to enable financial sustainability, and how might this affect your organization?
- How might your funding or business model need to change to ensure financial sustainability?
- What new legal, policy or regulatory issues might need to be considered and how might your legal agreements need to change?
- Do you have the right partner relationships in place to enable scale and sustainability, or are new partnerships required?
- Do you have the right human capacity to make these strategic changes, or do you need to retrain or hire staff with different skills and experiences?
- How might your approach to roll out, including everything from technical support and customer care to marketing and distribution, need to change?
- How might your solution design need to change to enable replication or diversification of your program offering?

Beyond Scale lays out a series of key steps that readers can work through to answer these questions and provides lessons learned by implementing organizations. We believe there are no right or wrong answers about how to evolve your digital development program. But we also recognize that the digital development field is a young and dynamic one and that we all have something to learn and something to teach. We hope you find this guide helpful on your journey *Beyond Scale*, and we hope that you will share your work and thoughts with us. Please contribute your feedback and examples to **beyondscale@digitalimpactalliance.org**

How to read Beyond Scale

This guide is divided into **seven** modules. It is structured so that it can be read whole or in parts. Each module is organized around one topic, such as legal, policy and regulatory concerns, business models or partnerships, and how these relate to the diverse challenges of scale and sustainability. Each module offers a series of key steps brought to life by real-world examples from BBC Media Action, Esoko and other digital development organizations. Useful tools, templates, guides and articles are linked to throughout the guide as actionable how-to tips, which readers can apply to their own work.

It's unlikely that all readers will find all modules useful. Different staff, depending on their role in an organization, are likely to find specific modules more applicable to their work than others. In the table below, we have mapped each module against the roles and job titles typically found in a NGO-based digital development program. For example, if you are the Program or Project Director of a digital intervention, you may find the modules on Strategy, Business Model, Legal, Policy and Regulatory, Partner Relationships and Roll Out most useful.

	MODULE				
ROLE	Strategy	Business model	Legal, policy, and regulatory	Solution design	
Program or Project Director	•	•	•		
Head of Operations or HR Manager	•	•	•		
Head of Finance or Marketing Manager	•	•	•		
Project Manager				•	
Head of Engineering or IT Manager				•	

MODULE

ROLE	Roll out	Human capacity	Partner relationships
Program or Project Director	•	•	•
Head of Operations or HR Manager	•	•	•
Head of Finance or Marketing Manager	•		•
Project Manager	•	•	•
Head of Engineering or IT Manager			

Disclaimer: This guide contains links to external websites. DIAL takes reasonable care in linking to websites but has no direct control over the content of the linked websites, the changes that may occur to the content on those websites, or the security arrangements applying to those websites. It is the responsibility of users to make their own decisions about the accuracy, currency, reliability and completeness of information contained on linked external websites.

Links to external websites do not constitute an endorsement or a recommendation of any material on those websites or of any third-party products or services offered by, from or through those websites. Users of links provided in this guide are responsible for being aware of which organization is hosting the website they visit.

DIAL makes every reasonable effort to maintain links to current and accurate information. Please contact us to report any broken links: **beyondscale@digitalimpactalliance.org**



Executive Summary

Beyond Scale aims to fill critical gaps in resources for digital development practitioners who have already piloted and potentially scaled a digital solution, and are now facing the challenge of sustainability. It provides guidance that is applicable to anyone in this critical phase of implementation, regardless of the thematic focus (such as, agriculture, financial inclusion, health, governance, resilience). *Beyond Scale* covers the entire life cycle of a digital solution, from strategy to roll out. The only area it does not cover is evaluating impact, as there are already excellent resources available for implementers on how to effectively measure the success of digital interventions.

Beyond Scale contains content that is designed for different audiences. These include the directors of NGOs in developing countries; program directors, project directors and the directors of digital teams; heads of finance, business and marketing, technical leads and product managers, and head of operations and HR. Guidance is rooted in the real world experiences of implementers grappling with the challenges of scale and sustainability in different thematic areas and countries, and is linked to practical tools that can be immediately applied.

BEYOND SCALE | Executive Summary

Existing resources	Gaps filled by Beyond Scale		Practitioner needs
Best practices for beginners	Key steps for achieving scale and sustainability for practitioners		Information relevant to programs at the four-to-five-year mark
Lessons for specific verticals such as health or agriculture	Lessons drawn from many verticals and applicable across verticals		Insights that are applicable to any vertical
Guidance limited to one topic such as strategy	Guidance across the entire lifecycle from strategy to roll out		Holistic guidance on pathways to scale and sustainability
Case studies and resources presented in stand-alone manner	Relevant implementer experiences and resources alongside key steps		Guidance rooted in real-world experiences
Theoretical, general or academic guidance	Practical guidance from implementers who have learned hard lessons		Actionable guidance grounded in specific, tangible language
		/	

This guide contains seven modules, each pertaining to a specific function or thematic area common to most large digital development programs:

- Strategy
- · Business model
- Legal, policy and regulatory
- Solution design
- Roll out
- Human capacity
- Partner relationships

The modules are structured in the form of key steps, which aim to support implementers in assessing the strengths and weaknesses of their existing programs, the opportunities and threats posed by a changing external environment and practical action they can take to minimize risk and achieve sustainable scale.

Strategy

A transition of a digital program's ownership, the end of its initial funding, or an expansion to new service offerings or geographies can necessitate major strategic shifts. Even changes in the regulatory environment, market demand or the competitive landscape can require fresh approaches. A renewed strategy is essential for aligning internal and external stakeholders with your digital program's new vision and direction and for mapping changes in areas such as business models, human capacity and partnerships.

Key steps

- 1. Assess the health of your digital program
- 2. Answer strategic questions about your digital program
- 3. Identify risks and prepare for change
- Revise strategic plans of each aspect of your digital program for achieving scale and sustainability

In practice: Esoko

When we entered Kenya, we thought we could cut and paste what we had done in Ghana but it didn't work. We made many mistakes because Kenya is a more competitive market. But it wasn't this move to Kenya that gave us the "Aha!" moment. It was when we ran the numbers and realized that we were actually losing money. It took going to the board, showing them the numbers, and convincing them that we needed to change direction to financial services — i.e. to something for which farmers were willing to pay, as opposed to information services, for which there was no desire to pay. Go to Esoko's 'In Practice' case study next to Step 1 to learn more.

How to highlights

- Learn more about evaluating your organization's current strategy here.
- Read about effective SWOT (strengths, weaknesses, opportunities and threats) analysis and root-cause assessments here.

Pro tip

 Set clear and realistic goals. Rationalized plans, with clear goals and measures, are needed to get strategy buy-in and ensure alignment across your organization. Remember that vision drives mission, which drives your program goals, which drives function-specific strategies and supports your program strategy.

Business model

Most programs, especially those established by NGOs, are grant-funded. But for your digital solution to become sustainable, you will need to go further and forge commercial partnerships with private-sector companies, or transition costs to government. Whether your route to sustainability is through the public or private sector, creating a robust business model will be essential to securing investment. Doing so means finding a way to balance revenue and costs, and clearly articulating your digital solution's value proposition in a revised business plan you can present to investors and funders.

Key steps

- 1. Understand what the changing landscape means for your digital solution
- 2. Estimate the total cost of owning your digital solution
- 3. Identify who is going to pay for the next phase of your digital program
- 4. Forecast revenue for your digital program
- 5. Determine time to financial sustainability
- 6. Develop a case to secure investment

In practice: BBC Media Action

We first launched Kilkari, an IVR service that sends time sensitive audio messages on reproductive, maternal, neonatal and child health to new and expecting mothers every week, in Bihar, India, in August 2013. By the end of the year, we knew our business model — where we charged end users a reduced rate for accessing the service to try to cover MNO network and service operating costs — wasn't going to work. The challenge lay in our market research. Go to BBC Media Action's 'In practice' case study next to Step 5 to learn more.

How to highlights

- Explore a range of funding and revenue models for digital development solutions here.
- Download an illustrative total cost of ownership tool here.

Pro tip

• **Bring in flexible help.** Rapid hiring during an expansion can be daunting, but shortterm consultants and advisors may be able to fill gaps. Think about discrete activities related to business models that could be more effectively done by outside resources.

Legal, policy and regulatory

If you are planning to replicate or diversify your digital development program, it's a good time to take stock of your legal situation. Preparing for the next phase means reviewing and revising your service and partner contracts and developing proactive policies in areas such as user privacy and consent, where laws are constantly evolving. Professional legal advice is essential to ensuring that your contracts meet your long-term needs and that your program complies with relevant laws and regulations.

Key steps

- 1. Assess the impact of evolving laws, policies and regulation on compliance
- 2. Ensure a flexible contracting approach to accommodate changes
- 3. Clarify ownership of intellectual property
- 4. Review software, hardware and content licensing terms
- 5. Clarify, limit and manage liability
- 6. Review and update service level agreements

In practice: BBC Media Action

One of the biggest challenges we faced when negotiating agreements with six MNOs in India was how to limit liability. Most of the MNOs insisted on using their standard legal templates, which exposed us to unlimited liability for our content and the quality our mobile health education services. Go to BBC Media Action's 'In practice' case study next to Step 5 to learn more about how we overcame this challenge.

How to highlights

• See examples of informed consent language for mobile health solutions here.

Pro tip

• Pay attention to Intellectual Property and liability. Some digital development leaders report that they didn't devote enough attention to content IP and liability, which can take a long time to negotiate. If you'll be developing or acquiring a lot of new content in the next phase, talk to your lawyers about what it will entail.

Solution design

Every aspect of a technical solution, including requirements, software, infrastructure, technical partnerships and processes, may need to change radically to ensure sustainable operations at scale. You will be faced with many challenges — from the stabilization of existing code and processes, to the creation of new features, products or services, to making decisions about where and how you will host and maintain your solution. Assess your options — including the strengths and weaknesses of off the shelf software solutions versus bespoke development — to design a solution that can be transitioned and supported at scale.

Key steps

- 1. Use a human-centered design approach to reassess your user requirements
- 2. Consider external factors that may change your existing solution design
- 3. Prioritize new features and set targets
- 4. Plan your technical development for sustainability at scale
- 5. Enhance your development processes if you decide to build your solution
- 6. Deploy, migrate and maintain your scaled solution

In practice: BBC Media Action

When we first launched Kilkari in Bihar, India, in 2013, it was designed as a cross operator service. Anyone in the state could subscribe to Kilkari by dialing short codes, and pay for the service using their mobile phone credit, thanks to our partnerships with the six largest MNOs in India, and an Indian aggregator. To minimize MNO network costs, and thus the tariff billed to the end user, we agreed on a decentralized solution design. When the Government of India decided to adopt and nationally scale Kilkari, we collaboratively revised our solution design. In many ways, we made it simpler. Go to BBC Media Action's 'In practice' case study next to Step 2 to learn more about how we changed our technical approach to enable scale and sustainability.

How to highlights

- Learn how to create detailed software development effort estimates here.
- Learn how to calculate the cost of migrating to the cloud here.

Pro tip

• Focus on support over features. Maintaining and operating a software system is a complex effort. When selecting software components, focus on the availability and cost of ongoing support and technical development to make your project more resilient and sustainable.

Roll out

When it comes to expanding your digital development program to a new geography or transitioning it to a new owner, success will be determined by how your teams and partners roll out your strategy. Robust project management, constant attention to detail and the ability to adjust quickly as both problems and opportunities arise are all keys to success. Sustainable scale requires the institutionalization of robust project management processes to ensure effective support, distribution, marketing and sales, training, reporting, and monitoring and supervision.

Key steps

- 1. Build project management foundations for scale
- 2. Plan for sustainable technical support at scale
- 3. Adapt training, monitoring and supervision programs for scale and sustainability
- 4. Optimize and expand your marketing to acquire new users at scale
- 5. Develop sustainable, cost-effective distribution channels at scale

In practice: Esoko

When it came to marketing our new services, we created brochures for farmers, suppliers and financial institutions. When distributing marketing materials, our materials and approach varied a lot depending on the audience. The brochures for farmers focused on outlining the steps to join the program and were distributed by field agents. To reach farmers, we did a lot of radio communications on local stations, which is important because farmers in Ghana rely on local radio and it is much cheaper than national radio. Regardless of who you are targeting, it's really important to make sure that communications staff are sufficiently trained before a product launch, so that they can talk about the product to others. Go to Esoko's 'In Practice' case study next to Step 4 to learn more.

How to highlights

- Learn more about successful techniques for training of trainers here and here.
- Read more about data-driven management here and about some of the common pitfalls organizations face when trying to implement it here.

Pro tip

• Establish discipline around process. Scale requires building program systems and infrastructure, which takes time and involves working through many details. Adopt a process mindset and focus on simplifying repeatable processes as you add new people and partners.

Human capacity

No matter what an organization's digital product or service is, people are its most important asset. After several years of operation, your original human resource strategy may no longer fit the needs of your next phase and it may be time to reassess. You may even be facing significant personnel changes as your original funding life cycle nears completion. As you visualize your next phase, think about who it will take to get there and how you'll retain, develop and motivate them. A good human capacity plan can set you up for growth that gets people excited and engaged, not fearful or overworked.

Key steps

- 1. Reassess your digital program's human resource strategy
- 2. Build a staff plan to enable sustainable scale
- 3. Bring the right people on board to deliver
- 4. Share knowledge to build skills
- 5. Express, model and reinforce desired behaviors

In practice: BBC Media Action

One of the reasons our mobile health education services have achieved scale in India is because we have deliberately hired professionals from the domestic mobile industry, to industry-standard job titles and job descriptions. Our digital staff, hired in India, have worked for MNOs such as Airtel, management consultancies such as PWC, tech multinationals such as IBM, as well as aggregators, mobile technology solution providers and digital publishing companies.

We've taken this approach because we've learned that domestic talent from the mobile industry has valuable intelligence about how the sector is structured, financed and managed, as well as experience of performing well-defined industry roles. Go to BBC Media Action's 'In Practice' case study next to Step 3 to learn more.

How to highlights

- Read about the steps that can advance gender-inclusive recruitment here.
- Learn how to manage the human side of change and transition here.

Pro tip

• Engage resisters, don't isolate them. Some digital development practitioners report that people who resist change in an organization can be effective advocates for it later if they are engaged early. Soliciting their opinions and channeling them into active roles can win them over.

Partner relationships

As digital development programs expand, transition ownership or develop new business models, their dependence on partnerships tends to increase. Organizations often need to identify new technical-solution partners, engage in deeper partnerships with government and strike new commercial relationships. Identifying which partners are needed as you grow is important to do early, as these negotiations can take years. Developing transparent governance structures and communication channels can set the stage for effective long-term partnerships.

Key steps

- 1. Assess your digital program's existing partnerships
- 2. Identify potential new partners
- 3. Update agreements and revise governance structures
- 4. Transfer knowledge to your partners

In practice: Esoko

We have partnerships with a number of different organizations that have helped us expand the services we offer and make them more interesting to our farmers. We partnered with Vodafone in Ghana to create the Vodafone Farmers' Club to allow users to pay for farming tips and market information with mobile phone credit. This made it easy and more comfortable for farmers to use our service, since they were already using mobile credit to purchase other value-added services. As a result, farmers were more willing to pay for our service, which made our revenue forecasting easier. Go to Esoko's 'In Practice' case study next to Step 2 to learn more.

How to highlights

- View a go/no-go decision checklist used to assess costs, risks and value of partnerships here.
- See a sample partnering agreement here and a project charter template here.

Pro tip

• **Don't bloat your governance structure.** It's tempting to make stakeholders feel valued by offering them a role in governance, but including too many organizations and people can lead to slow and convoluted decision-making processes. Advisory bodies can allow for inputs by all the partners involved without slowing progress.

BEYOND SCALE 21

Digital Impact Alliance

STRATEGY

BEYOND SCALE: How to make your digital development program sustainable





STRATEGY

MODULE SUMMARY

If you've been running a digital program for several years and it has shown potential for large-scale impact, you may be reaching a turning point where you need to step back, look at the big picture and determine your strategy for the next phase of the journey. Scaling your program to new users through replication or diversification of the products and services that it offers can necessitate major strategic shifts. A transition of the program's ownership, the end of its initial funding, or changes in the regulatory environment, market demand or the competitive landscape can also require fresh approaches. A renewed strategy is essential for aligning internal and external stakeholders with your digital program's new vision and for mapping changes in areas such as financial and business management, solution design and human capacity.

Before exploring the steps in the next six modules, some foundational questions need to be holistically considered. What are the internal or external changes that will shape your digital program in its next phase and what do these changes mean for your ability to expand? How will the structure of your program and the roles and responsibilities of key stakeholders need to change to reach your strategic goals? What impact will these changes have on your program, organization and partners? What are the constraints and risks you may face as you move ahead, and what are the strategies for mitigating them? Good strategic plans are flexible, living documents that teams work to continually update to reflect changes in the environment.



BEYOND SCALE | Strategy Module

The focus of this module is on reviewing and refreshing the vision, goals and strategic plans of your entire digital program to address ecosystem change. It draws on interviews conducted with digital development leaders in organizations such as BBC Media Action, Esoko, the Bangladesh Directorate General of Health Services, Digital Green, mHealth Kenya, TaroWorks and Akros about their experiences creating a new strategy for growth or transition. Program directors and leaders who are driving the strategic planning process and overseeing all aspects of a digital program's operations will find this module most useful. It may also be helpful for leaders of different functional areas, such as technology or finance, who will be driving strategic planning in those areas.

This module lays out a series of steps that you can take to develop a strategy for the next three to five years of your digital program's growth and development. It provides organizing frameworks and tools that directors and leaders may find useful when revising their existing strategies and planning for the next phase.

1 2 3 4 5 6 (

After reading this module, you will have more tools to:

- 1. Assess the health of your digital program
- 2. Answer strategic questions about your digital program
- ▶ 3. Identify risks and prepare for change
- 4. Revise the strategic plans for each aspect for your digital program

BEYOND SCALE | Strategy Module

Key steps

ASSESS THE HEALTH OF YOUR DIGITAL PROGRAM

- Articulate the forces driving change in your program
 Assess the current state of your program operations and external environment
 Discuss strategic opportunities with stelepholder
 - Discuss strategic opportunities with stakeholders

ANSWER STRATEGIC QUESTIONS ABOUT YOUR

- DIGITAL PROGRAM
 Replicate or diversify: define your expansion pathway
 Public or private sector: assess whether your business model might impact your legal status
 - Redefine your program's vision, goals and indicators

IDENTIFY RISKS AND PREPARE FOR CHANGE

- Define internal and external expansion risks
 Prepare for the impact of change on your organization
 Identify and empower change champions

REVISE THE STRATEGIC PLANS FOR EACH ASPECT OF YOUR DIGITAL PROGRAM
Identify which aspects of your program will be impacted
Develop strategic plans for each area of work
Roll up functional plans into a program strategy



STEP 1 DDD

ASSESS THE HEALTH OF YOUR DIGITAL PROGRAM

Articulate the forces driving change in your program

While nearly all successful organizations engage in regular strategic planning, a major change such as the end of donor funding or the transition of a program's ownership requires a thorough strategic revision. Running out of funding, changes in the technical landscape and regulatory environment, and key personnel changes are some of the most common forces that impact digital programs at the four-to-five year mark. If your program is donor funded, you may have additional metrics that need to be met to obtain additional funding.

At this stage, it is important to update your financial projections and articulate new external and internal forces driving change for your digital program. Work with your leadership team to perform a root-cause analysis of these changes, and engage staff to share their thoughts on how they might affect your organization's aspirations for growing its digital program. This will put you in a better position to understand team concerns regarding those changes, develop a program-wide strategy to tackle them, or have informed conversations with donors to influence success metrics moving forward.

Assess the current state of your program operations and external environment

With the forces of change in mind, make time to update the strengths, weaknesses, opportunities and threats (SWOT) analysis for your digital program. Start by assessing the current state of your program and strategy with your staff. Map these against the changing external environment to determine how your program needs to change to ensure growth or sustainability. A comprehensive assessment should look both inward and outward. As part of this process, develop a set of specific questions around the strategic opportunities that you've identified to discuss with key stakeholders.

1 2 3 4 5 6 7

In practice | Esoko

The direction we were growing in wasn't going to lead to scale. We were getting large numbers of users but our financial performance was flat. We wanted farmers to eventually start paying for our market pricing information service themselves, after they had used it for free under NGO- and government-funded programs. However, this did not happen and we earned less revenue in 2015 than in 2014. We moved to Kenya to achieve greater scale because we realized that we were not going to grow the way we wanted to in Ghana alone. When we entered Kenya, we thought we could cut and paste what we had done in Ghana, but it didn't work. We made many mistakes because Kenya is a more competitive market. But it wasn't this move to Kenya that gave us the "Aha!" moment. It was when we ran the numbers and realized that we were actually losing money. It took going to the board, showing them the numbers, and convincing them that we needed to change direction to financial services — i.e. to something for which farmers were willing to pay, as opposed to information services, for which there was no desire to pay.

Other examples

- When Digital Green decided to reassess its digital platform strategy, it held internal leadership and external partner discussions. A key topic was whether to base its staff in partner offices. There was concern that this approach was making partners dependent on Digital Green for executing all aspects of video creation. As a result, Digital Green decided to provide remote support during its next phase of growth. This led to a positive shift, where partners took greater ownership of video creation, and were more invested in the process.
- The Bangladesh Directorate General of Health Services aligned its digital ambition with the governing party's political agenda to secure funding for a health management information system (HMIS). The newly elected national government was eager to implement its Digital Bangladesh mission. This meant that there was tremendous political support for an HMIS, and funding was easily secured. Alignment with national strategy was thus key to the success of the initiative.

How to

- Learn about assessing your organization's financial health and performance here and about the differences between strategic and business planning here
- Read about effective SWOT analysis here
- Learn more about evaluating your organization's current strategy here
- See questions to consider when gathering stakeholder inputs here



BEYOND SCALE | Strategy Module: Step 1 of 4

Internal areas to review include your digital program's people, processes and financial health. Consider these factors as they stand alone and as they interconnect: your organizational leadership and culture, business process strengths and areas needing improvement, budget expenditures versus income, the performance of different revenue streams, cash flow and reserves, financial forecasts, and the overall health of the sector.

For example, changes in leadership can create new opportunities, but have a profound impact on a company's culture and how it sees itself. A lack of income and high operating costs may indicate areas where change is needed. Strong financial performance, including sustained interest from existing donors or interest from new investors, may allow for greater expansion.

Your assessment will also look outward to changes in the solution environment, which could include new technologies, increased connectivity, and competitive initiatives; the stakeholder environment, which includes funders, governments, partners and end users; and in the regulatory environment, which includes the implications of regulatory changes beyond your control.

For example, if you want the government to pay for your digital solution or services, changes in the country's elected leadership could either support or damage your digital program, depending on your history with the elected officials and your alignment with their priorities. Similarly, new technology innovations may enable you to offer new products and services, deliver through new channels, or improve internal efficiencies and reduce operating costs. Alternatively, these innovations could take users away from your digital offering or contribute to its obsolescence.

FOR MORE INFORMATION SEE:

Assessing your digital program: internal and external factors

Discuss strategic opportunities with stakeholders

Your board of directors, partners and advisers have a history and vested interest in your digital program's future direction and success. Discuss your strategic questions with them, and ask for their input in developing your strategy for the next phase. You can engage these individuals via board meetings, dedicated strategic planning sessions or one-on-one interviews. Keep in mind that you need direct, candid advice for these discussions to be productive. In addition to the stakeholders mentioned above, consider interviewing three to five individuals who know your program, its context and its landscape well, and can provide candid advice because they lack a vested interest in its future.

As you embark on this process, share your program's successes and challenges with stakeholders. Discuss the big internal and external trends impacting your program. Brainstorm or validate some of the strategic options you are considering for growth. Ask stakeholders to challenge your assumptions. Discuss the risks and how these trends may impact the shared



BEYOND SCALE | Strategy Module: Step 1 of 4

vision you have with your partners. Ask them to identify three to five things they would change about the program. These stakeholders have a wealth of experience and an outsider's perspective, and they can be particularly useful in raising ideas for new directions, structures, partnerships and solutions for your program to consider.

Your assessment and stakeholder conversations will be most productive if they are guided by several fundamental strategic questions, explored in the subsequent steps in this module:

- Are the conditions right for an expansion of your digital program?
- Who is going to pay for any expansion?
- How will changes to your business model affect your program structure?
- What impact will these choices have on your organization, and how will you manage these changes?



Assessing your digital program: internal and external factors

The graphic below shows **internal** factors to consider when assessing the current state of your digital program. These include the strengths and weaknesses of your most important asset, your people, as well as your project management and roll out processes. They touch on how organizational culture might influence important strategic or philosophical decisions, such as whether to become financially self-sufficient or remain dependent on philanthropy; to plan for scale or deeper impact per user; to aim for competition or collaboration, and to build with open source or proprietary software. Other internal factors include your financial inflows and expenditures, including your business model and how it might evolve over time.



Internal factors

The graphic below shows **external** factors to consider when assessing the current state of your digital program, including the competitiveness or relevance of your solution to your users and other external stakeholders, such as donors or government. For instance, in the fast-evolving digital services space, it's common for partners to turn into competitors. As part of your assessment, consider the evolving needs of partners, influencers and end users. Assessing these factors isn't just about collecting hard data. It also means asking tough questions about what's working — and what isn't — and looking ahead at trends that may be beyond your control in the external environment.



External factors

STEP 2 >>>>

ANSWER STRATEGIC QUESTIONS ABOUT YOUR DIGITAL PROGRAM

Replicate or diversify: define your expansion pathway

At this juncture, based on the assessment you conducted in Step 1, a fundamental question needs to be answered: do you plan to expand your digital program in the next phase? If the answer is yes, **replication** and **diversification** are the two major pathways to consider. Replication entails the roll out of your existing digital program in new vertical markets and geographies, while diversification involves developing new products and services in addition to your current ones.

Each pathway has implications for your program's strategy in the next phase. For example, replication in a new geography may involve relatively few changes to your digital solution (in terms of user experience) but big shifts in your business model, partnerships, technical solution design, and legal and human capacity requirements. Diversification in your current market, by contrast, might involve complementing your existing service with new services. This could entail fairly small changes to your sales and marketing channels but major changes in areas like solution design, business model and human capacity requirements. Many organizations will try multiple approaches, either in parallel or sequentially, to meet their strategic goals. See the graphic in the following section for more information.

Public or private sector: assess whether your business model might impact your legal status

Regardless of which expansion pathway you choose, you'll need to assess whether your business model can generate enough income to cover your operating costs, a process explored in depth in the Business Model module of this guide. Doing so involves answering another fundamental question: Who is going to pay for your program's expansion? While there are many potential sources of income for digital development programs, most fall into two broad categories: private sector or public sector. Be aware that donor funding is important for many programs in their initial phase, but it is rarely sufficient for digital programs aiming for long-term sustainability. Each of these routes has implications for your digital program's legal status and structure.



In practice | BBC Media Action

What we've learned from travelling outside our comfort zone

As a British charity, our digital programs in countries such as Bangladesh and India have frequently taken us outside our comfort zone. Launching educational mobile services at scale has relied on complex partnerships with the public and private sector, including six MNOs.

Negotiating partnerships with MNOs has been challenging. We have had to learn an entirely new language, becoming fluent in the ABCs of the commercial mobile industry. We have learned to accept that MNOs see the beneficiaries of our digital programs as 'customers', and that they will not partner with us unless we present compelling commercial business cases.

In hindsight, reaching scale was much less challenging than achieving financial sustainability. We have tried both private and public-sector routes.

We tried to make our services sustainable by charging the end users of our digital services (though at reduced rates), and sharing revenue with our MNO partners and aggregator, as is standard commercial practice. Our objective was to cover MNO network costs, and service operating costs, thus making the services sustainable beyond donor funding.

The revenue that the MNOs earned from the 'sale' of our digital content and services to their subscribers was small, and was directly invested back into our digital program to fulfill our development objectives. But unfortunately, it did not cover the costs of managing, supporting, maintaining and marketing our digital services.

We then followed an alternative, public sector pathway to sustainability – i.e. making our digital services toll free to users to enable universal access to mobile phone users, and transitioning responsibility for costs to government. The road has been long and bumpy, but we've managed to achieve a significant degree of sustainability, including transitioning most on-going costs to government for three mobile health education services. This has involved significant organizational change, including hiring people with experience of working with government.

As a result, our internal equilibrium has shifted, from an organization focused primarily on strategic, creative social and behavior change communication, to one experienced in navigating government systems and supporting government processes. These two skill sets are complementary, but culturally very different, and sometimes this change has been challenging to manage. We've lost people, who felt ground down by the relentless tenacity that public sector engagement can require, but we've also retained and gained people thanks to our shared, personal commitment to the longevity and continued impact our work.



BEYOND SCALE | Strategy Module: Step 2 of 4

Generating private sector income typically involves charging either end users or commercial partners for the services your program provides. For NGOs who wish to pursue private sector income, it may be necessary to legally change the status and structure of their digital program. This can mean setting up a trading company, spinning off the digital program into a for-profit social enterprise or entering into a legal partnership with a commercial partner. Any of these steps will require significant time and extensive consultation with legal advisers.

Pursuing a public sector route, by contrast, involves government funding of your digital program and often means transitioning ownership to a government ministry or agency. This process involves significant knowledge transfer to government counterparts who will take over management of the program. It also requires government buy-in at a senior level and the ability of the ministry or agency to manage the program without your support after the transition is complete.

FOR MORE INFORMATION SEE:

- Replication vs. Diversification
- Business Model: STEP 3. IDENTIFY WHO IS GOING TO PAY FOR THE NEXT PHASE

Redefine your program's vision, goals and indicators

Many organizations revisit their vision and mission statements during a strategic transition to reflect on how the expansion or transition of their digital program might impact their identity. This is an essential step at any major turning point and should involve not only your organization's management but your board of directors.

To fulfill your digital program's vision, you'll also need to define what success looks like in the next phase, which is typically guided by the outcomes the program is trying to achieve. For example, instead of just providing farmers with agricultural information to improve their livelihoods, your new goal may be to deepen your impact by empowering them with cost-effective financial services as well. Your target might be to trial mobile sales of a new insurance product in one geography in the next six months. And your key performance indicators might include the number of farmers contacted, the number of farmers who acquired the service or the amount of revenue generated each month.

If you're transitioning your program to government, your goals may shift from achieving outcomes directly through your digital program to effectively empowering government to achieve these goals. And you may have entirely different targets, such as transitioning a certain number of contracts to the government by a specific date. The SMART approach (using goals that are specific, measurable, achievable, results-focused and timebound) can help clarify goals with staff. Agree how you will track progress toward your goals and set realistic targets and indicators based on your roll out plans.


Other examples

- The Grameen Foundation wanted to make the TaroWorks platform sustainable by establishing a corporate structure that would allow it to charge users for its software. Reaching that goal meant transitioning TaroWorks from a project operated by the Grameen Foundation to a separate legal entity. While Grameen still owns TaroWorks, its ownership stake will decrease over time as new investors are brought in. This transition fits with Grameen's larger strategy of funding early-stage innovation rather than becoming a provider of venture capital or a long-term owner of technical platforms.
- Digital Green has defined a series of metrics to monitor the impact of its digital interventions on farmer productivity. Monitoring data indicates that its video interventions raise farmers' productivity by 21 percent. In its next five year strategy, Digital Green has increased its target to increase productivity by 40 to 50 percent.

How to

- Review criteria for well-developed vision and mission statements here
- See techniques for evaluating different strategic scenarios here
- Learn more about setting targets and evaluating your program here



Replication vs. Diversification

Expansion pathway implications



Compliance with legal and regulatory requirements that may apply to new products or services

2 3 4 5 6

Expansion pathway implications

Replication: Scaling your solution in the same or different geographies often involves adapting your business model to different regulatory environments, establishing new partnerships, modifying or signing new contracts, changing your technical solution design, localizing your digital solution (particularly content), documenting and systematizing your program's processes, increasing your support capacity, and building your team to deliver your expanded digital program. This guide highlights the experience of BBC Media Action, which has adapted most aspects of its digital program as it scaled its mHealth education services across India.

Diversification: Offering new digital products and services can be a better way of meeting the needs of your end users, increasing your reach and impact, and creating additional revenue streams. This guide highlights the experience of Esoko, which diversified its business model and portfolio by introducing financial services for farmers in addition to its original service of providing agricultural information.



Business models implications

The business model you develop to fund your expansion is likely to have a major impact on your digital program's legal status. A private sector business model — where NGOs collect commercial revenue on a large scale — may require setting up a new legal entity, while a public sector model may mean transitioning ownership of the program to a government partner. This guide features the experiences of BBC Media Action, Akros, Dimagi, SolarNow, Digital Green and TaroWorks in transitioning the ownership of their programs either to government or commercial entities.



STEP 3 >>>>

IDENTIFY RISKS AND PREPARE FOR CHANGE

Define internal and external expansion risks

Change always entails risk. It's important to think about the internal and external risks — or threats — of expanding or transitioning your digital program. This includes both risks that are under your organization's control as well as those that are inherent in the external environment. Internal risks can include management and technical capacity gaps, persistent financial operating deficits and staff resistance to change.

For example, a technical capacity risk may be that one of your technical vendors or key staff decides to leave because of the transition and you are not able to replace them fast enough. A financial risk may be that expenses related to new geographical expansion — such as software licensing, registering as a new legal entity, network connectivity, hardware costs and training — increase operating costs unsustainably.

It's important to think about the internal and external risks — or threats — of expanding or transitioning your digital program.

External risks can include changing regulatory environments, new competition for your solution or decreased availability of funding. For instance, regulatory changes related to how user consent is obtained could have implications for the design of your solution's user interface. It could also lengthen enrollment processes, reporting and overall timelines. Completing a risk assessment for the expansion or transition of your digital program can help you identify or prioritize the risks your organization faces based on their probability and impact.

In practice | mHealth Kenya

Watch Dr. Cathy Mwangi, CEO of **mHealth Kenya**, talk about the challenges she and her staff faced when changing from a donor-funded model to a commercial model, where clients and end users paid for services.



Other examples

When Akros successfully proved its concept in one district in Zambia and began rolling out in nine more districts, it faced a lot of risks, unanswered questions and untested theories. This required senior management to be heavily involved in the roll out process. Over time, project management protocols were validated or revised. Akros documented these findings and revised its protocols until the organization had a robust implementation system in place. When new people joined the organization, Akros made sure they were briefed and monitored on these protocols and knew the objectives of the project. These documented protocols and processes substantially reduced risk as the organization grew.

How to

- See a risk assessment matrix template here
- Read more about risk assessment here
- Read more about readying your organization for change here
- See tools for building organizational effectiveness and change management here and here



BEYOND SCALE | Strategy Module: Step 3 of 4



© BBC Media Action

Prepare for the impact of change on your team

Expanding or transitioning a digital program can impact your staff, organizational culture and the processes, systems and tools that everyone uses to do their jobs. People within your organization need to understand the changes, requiring careful communication at multiple levels. It also requires you to develop a formal case to justify the new direction, and establish clear processes for and ownership of the change.

Change management requires creating formal governance and leadership structures for the program moving forward, engaging and managing stakeholders throughout the change process, communicating the change effectively, providing training and support to internal teams, external partners and end users, and monitoring and reinforcing new routines carefully. Remember that effective change management includes an ongoing and longlasting process of continuously communicating and reinforcing change, and that it affects everyone on your staff as well as the people you serve.

Identify and empower change champions

Making changes to organizational structure, defining new roles for people and teams, and planning the timing and speed at which things change will all impact people's jobs and attitudes. To make this process smoother for yourself and your staff, define the roles and involvement that leadership and team members will have in the change process.

For example, executive stakeholders can provide the organizational direction, a steering committee can provide project direction, individuals or teams driving change can provide project leadership, and other managers can ensure project execution. Identifying and empowering internal change champions — at all levels of your organization — who endorse the transition and smooth resistance can be invaluable. Identify these champions early on, talk to them about why you would like them to show leadership, and allow them to define their role in ushering in the change.



Making changes to organizational structure, defining new roles for people and teams, and planning the timing and speed at which things change will all impact people's jobs and attitudes.



STEP 4 DDD

REVISE THE STRATEGIC PLANS FOR EACH ASPECT OF YOUR DIGITAL PROGRAM

Identify which aspects of your program will be impacted

Replicating or diversifying your digital program will impact its core functions. The pathway you choose will determine the degree of change required. The modules in this guide can support you in developing strategic plans for each core function (finance, legal, HR, solution design, roll out etc.) with your teams. Engaging your teams early on can help build their ownership, which will help prevent feelings of surprise or uncertainty.

Develop strategic plans for each area of work

It is important that the teams within your organization align their own strategies with your organization's new goals. Their strategic plans should set clear strategies, tactics and metrics, all of which should support the digital program goals set in the previous step.

For instance, you may have set a target of increasing your mobile finance program's user base by 20 percent. A strategy for your sales team to support that goal might be to establish new distribution partnerships with insurance companies. The tactics your sales team sets would then encompass all the activities to bring these new partners on board, measured by indicators such as the number of new insurance partners and agent outlets added each year.

Roll up functional plans into a program strategy

Once the strategies, tactics and measures for each aspect of your digital program are set, roll these up into your overall program strategy and discuss them with your teams. A document that organizes each team's strategies, tactics and measures against each of your goals can provide a clear view of how everyone is pulling in the same direction. Further breaking down these tactics into deliverables with quarterly targets can be a big step toward operationalizing your plans and making them actionable and transparent across the organization.

BEYOND SCALE | Strategy Module: Step 4 of 4

How to

Learn more about the role that goals, strategies, tactics and metrics play in informing a strategy here

> Engaging your teams early on can help build their ownership, which will prevent feelings of surprise or uncertainty.



RESOURCE ROLLUP

Who do you need?

Developing a strategy to grow or transition your program is a highly collaborative effort. Your program's top management will be integral to leading key processes such as updating the vision and mission of your digital program.

Activity	Resource type
Current state assessment	Program leadership, partners, advisers, analysts
Vision, mission and goals	Program leadership, all functional teams
Functional strategies and roll out	Functional leaders, program leadership
Risk assessment and change management	Program leadership, analysts

Pro tips

Involve all stakeholders. Updating your program strategy will impact your entire program team, your organization and your partners. It's important to have participation from all stakeholders to gather inputs and get their buy-in to the plans as they are being created.

Set clear and realistic goals. Rationalized plans, with clear goals and measures, are needed to get strategy buy-in and ensure alignment across your organization. Remember that vision drives mission, which drives your program goals, which drives function-specific (team or departmental) strategies. And all of it supports your program strategy.

Focus on change management. A strategy is only as good as its execution. An approach to change management that focuses on managing the impact of change on both people and processes is a critical first step in execution and connects your strategy and roll out plans.

BEYOND SCALE | Strategy Module: Resources

Referenced resources		
1. ASSESS WHERE YOU ARE TODAY	 Guide: How to Research a Nonprofit's Financial Strength Guide: Business Planning for Nonprofits Article: SWOT Analysis - Do it Properly! Article: How to Evaluate Corporate Strategy Example: A Deeper Dive into Methods for Stakeholder Listen: Sample Questions for Stakeholders 	
2. ANSWER STRATEGIC QUESTIONS ABOUT YOUR DIGITAL PROGRAM	 Article: Mission and Vision Statements Toolkit: Exploring Assumptions & Context: Forecasting Toolkit: The Strategic Planning in Nonprofits (SPiN) Cycle 	
3. IDENTIFY RISKS AND PREPARE FOR CHANGE	 Toolkit: Smartsheet: All the Risk Assessment Matrix Templates You Need Paper: Risk Assessment in Practice Article: Four Actions Nonprofit Leaders Can Take to Transform Organizational Culture Article: Key Elements of Effective Organizations: Bridgespan's Organization Wheel Article: 10 Principles of Leading Change Management 	
4. REVISE STRATEGIC PLANS FOR EACH ASPECT OF YOUR DIGITAL PROGRAM	 Tool: The OGTM Method of Goal Setting: Linking Strategy and Performance 	



BEYOND SCALE | Strategy Module: Glossary

Term	Definition
Aggregator Source	An organization that acts as a middleman between application and content providers, and mobile carriers. Provides message traffic throughput to multiple wireless operators or other aggregators; provides mobile initiative campaign oversight, and administration, as well as billing services.
Key performance indicators	Measurable values used by managers to assess the effectiveness of processes and functions in meeting organizational goals.
Measures or metrics Source	Numbers or quantities that record a directly observable value or performance.
Mission statement Source	A short statement of an organization's purpose identifying the scope of its operations: what kind of product or service it provides, its primary customers or market and its geographical region of operation. It may include a short statement of such fundamental matters as the organization's values or philosophies and main competitive advantages.
Tactics Source	Microstrategies that take advantage of business situations as they develop. They are quick, actionable plans that support an organization's overall strategy.
Trading company Source	Businesses working with different kinds of products which are sold for consumer, business or government purposes. Trading companies buy a specialized range of products, maintain a stock or a shop, and deliver products to customers.
Vision Source	An organization's road map, both indicating what the organization wants to become and guiding transformation by setting a defined direction for the organization's growth.



BEYOND SCALE | Strategy Module



Digital Impact Alliance

BUSINESS MODEL

BEYOND SCALE: How to make your digital development program sustainable

Module 2 of 7 (1) (2) (3) (4) (5) (6) (7)



BUSINESS MODEL

MODULE SUMMARY

Finding a path to financial sustainability is one of the biggest challenges faced by digital development programs. Most programs, especially those established by NGOs, are grant funded. But if they are to become sustainable, alternative ways of covering costs need to be identified before the funding runs out.

Digital development implementers have explored different approaches to financial sustainability — from transitioning ownership to government to charging end users to developing alternative commercial revenue streams. And although the term may not be frequently used among NGOs, this is exactly what a business model describes: the way in which an organization generates enough revenue from various sources to cover its costs and continue operating.

Until now, your business model may have consisted of a mix of institutional grants, individual donations and perhaps affiliate schemes where commercial partners, such as credit card providers, donate a percentage of every transaction to your cause. But for your digital solution to become sustainable, you will need to go further and forge commercial partnerships with private-sector companies or transition costs to government.

Whether your route to sustainability is through the public or private sector, a robust business model will be essential to securing investment. Fundamentally, you will need to balance revenue and costs and clearly articulate your digital solution's value proposition.



BEYOND SCALE | Business Model Module

Achieving these goals will involve scrutinizing your existing costs and how they may change as you scale or transition. On the revenue side, you'll need to identify new buyers for your digital solution and establish how much they are willing and able to pay. This information can be used to forecast how much income you will generate or indicate the potential to make a profit if you are a social enterprise. Your business model can then be refined into a revised business plan and presented to investors or funders.



This module uses insights gained from interviews with organizations including BBC Media Action, Esoko, Kopo Kopo, Akros, Cell-Life, Dimagi, Praekelt Foundation, United Nations Capital Development Fund (UNCDF) and TaroWorks to help you make your digital development solution financially sustainable in the next phase of its life.

The steps and activities here will help you to:

- I Understand what the changing landscape means for your digital solution
- 2 Estimate the total cost of owning your digital solution
- ▶ 3 Identify who is going to pay for the next phase of your digital program
- 4 Forecast revenue for your digital program
- 5 Determine time to financial sustainability
- ▶ 6 Develop a case to secure investment



Key steps

UNDERSTAND WHAT THE CHANGING LANDSCAPE **MEANS FOR YOUR DIGITAL SOLUTION**

- Revisit your competition
 Update your assumptions about your target audience
 Take a fresh look at the payer landscape

 - Determine the impact of changes on your total addressable market (TAM)

ESTIMATE THE TOTAL COST OF OWNING YOUR DIGITAL SOLUTION Map out solution costs and how they might change over time Sort costs into capital and operating expenditures Determine the total cost of ownership (TCO) for your solution **DIGITAL SOLUTION**

IDENTIFY WHO IS GOING TO PAY FOR THE NEXT PHASE OF YOUR DIGITAL PROGRAM

- Reassess your value chain
 Identify advantages for potential payers
 Determine payers' ability and willingness to pay
 Choose the business model that's best for your solution

FORECAST REVENUE FOR YOUR DIGITAL PROGRAM

- Use your data to estimate revenue
 Model different revenue scenarios
 Update your forecasts regularly

DETERMINE TIME TO FINANCIAL SUSTAINABILITY

- Estimate how long it will take to become sustainable
 Step back, reassess and adjust
 Budget sufficient resources for the long road to sustainability

DEVELOP A CASE TO SECURE INVESTMENT

- Articulate your answers to the fundamental questions
 Update your business model for financial sustainability
 Build business cases for partners into a revised business plan



STEP 1 DDDDD

UNDERSTAND WHAT THE CHANGING LANDSCAPE MEANS FOR YOUR DIGITAL SOLUTION

Revisit your competition

New competitors, technologies and business models will all influence the demand for your digital solution among target audiences, governments and potential commercial partners. In a sector where different donors — or even the same donor — may invest in similar digital pilots in the same country, competition among NGOs for government resources for scale and sustainability can be fierce. Some organizations have found that their solutions just aren't government priorities and can't successfully compete for scant public-sector resources beyond the lifetime of their existing grants.

Even digital solutions offered by nonprofits compete with alternatives. If you are at a transition point and need to make big decisions, a useful first step might be to review your solution's competitive landscape. Assess how other organizations compare to yours with respect to their digital services and products, scale of operations, business models, costs, investor and government relationships and the degree of sustainability they have achieved. A common way to assess the competition is through an analysis of strengths, weaknesses, opportunities and threats (SWOT).

Update your assumptions about your target audience

The needs and tastes of your target audience may have evolved while you've been building and piloting your digital solution. Thus it is worth asking and answering some key questions. Do your users have more access to the same technologies or are they using different technologies entirely? How have local industry trends changed their usage habits? If you are expanding to a new country, what are the similarities and differences between your new and existing target audiences?

Publicly available reports on consumer behavior and trends from companies like The Boston Consulting Group (BCG) and Deloitte or industry bodies like the GSMA can provide high-level data on your digital environment or market. When you're targeting specific



In practice | BBC Media Action

What our market research didn't reveal, and how it changed our business model

We first launched Kilkari, an IVR service that sends time sensitive audio messages on reproductive, maternal, neonatal and child health (RMNCH) to new and expecting mothers every week, in Bihar, India, in August 2013. By the end of the year, we knew our business model — where we charged end users a reduced rate for accessing the service to try to cover MNO network and service operating costs — wasn't going to work. The challenge lay in our market research.

While designing Kilkari, we did a survey of 1,500 people in Bihar to identify what functionality they used and how much money they spent on their mobile phones i.e. their Average Revenue Per User (ARPU). The objective was to identify the most appropriate technology to use and whether they could afford to pay for the service. Our research indicated that IVR was the most appropriate technology, because it's audiobased and accessible from any handset, and that with an ARPU of 60 rupees per month, our target audience could afford to pay for Kilkari, if the price was right.

We supplemented this research with concept testing to establish that the majority were not just able, but willing to pay a nominal, weekly fee for Kilkari. We cross referenced this with Indian census data on the crude birth rate to estimate a Total Addressable Market (TAM) of 500,000 families in eight districts in Bihar.

After launching the service, the response to our digital and rural marketing campaigns was positive, with thousands of people calling to subscribe each day. But 40% of these subscription requests couldn't be activated by our MNO partners, because up to 50% of our target audience had no credit on their mobile phones at any given time. Although rural mobile subscribers in Bihar have an average monthly ARPU of 60 rupees (a little under one US dollar), the majority buy tiny amounts of talk time credit throughout the month, and tend to spend almost all of it immediately.

Although our target users had enough money to pay for Kilkari, their expenditure patterns meant they couldn't subscribe. This meant that Kilkari was unlikely to succeed unless it was free to users, and MNOs could activate subscription requests from phones with no credit. But we did not have enough donor funding to cover call costs for hundreds of thousands of families.

Go to BBC Media Action's 'In practice' case study next to Step 5 to read about how we overcame this challenge, making Kilkari free to millions of women in India.

groups, more granular information is needed on habits and preferences. Having staff and partners conduct surveys and focus group discussions with your target audience can give you a more specific, nuanced view of the people you're trying to serve, particularly if they are low income, illiterate and female. MNO and other partners are unlikely to have rich data on the technology usage habits of these groups.

Take a fresh look at the payer landscape

Income levels and expenditure patterns change over time, and new payment approaches and methods replace old ones. If your route to sustainability relies on target audiences paying for your digital service or product, it is worth surveying your end users about the money they spend on their phone every month (often expressed as ARPU, or average revenue per user), their willingness to pay for solutions such as yours, the price point that's acceptable to them, and the payment method that they're most likely to adopt.

There may also be changes among institutional payers — e.g. government agencies or insurance companies — for solutions whose costs are covered by sources other than end user charges. In public-sector programs, talk to government representatives about how election and budget cycles and changing priorities may impact the government's willingness to pay for a solution over time.

Determine the impact of changes on your total addressable market (TAM)

In addition to shifts in the competitive, audience, and payer landscapes, other factors that could affect demand for your solution (and your ability to deliver it) include changes in telecommunications and power infrastructure, marketing and distribution networks, and government policy in areas such as taxation. Understanding the changes in your digital solution's ecosystem is important because all these factors will impact the potential scale of your solution in its next phase. This potential is often described as the total addressable market (TAM), which represents the maximum amount of income your digital development solution could generate.

TAM is based on the total number of people willing and able to buy a product or service at the targeted price point, regardless of whether payments are made entirely by users or subsidized by governments, donors or private-sector companies. TAM is based on many assumptions about users' demand for a solution and their likeliness and ability to adopt it. It is often overestimated, so being transparent about your assumptions is important. Your estimate of the TAM for your solution will be useful when you forecast your revenue. Even if your service is free to end users, it's still critical to try to estimate the TAM for your solution because of its usefulness in representing demand for it among possible payers.



Other examples

When Cell-Life was looking for data on how to reach lower-income South Africans with SMS messages on nutrition, it found that there was very little information on low income mobile phone users. While there was substantial data on the number of mobile phones sold and number of active connections, it was rarely broken down by income groups, and no data existed on the use of phones by gender, literacy level and language. The organization decided to build this research into its work, comparing uptake of the service against each advertising channel used. It found that newspapers and posters didn't work. Instead, mobile advertising was much more effective. Advertising a SMS service via SMS increased uptake; this was an insight its managers didn't find in the literature on mobile solutions. Read more here.

How to

- See a SWOT analysis template here
- See an example of visualized SWOT analysis results here
- Learn how to conduct market research here
- Learn how to estimate your TAM here

Understanding the changes in your digital solution's ecosystem is important because all these factors will impact the potential scale of your solution in its next phase.



BBC Media Action: building a business case for maternal health messaging

Sized the target audience

Determined % of target audience with access to mobile phones & using VAS Established willingness to pay for the service and affordable price point

We used government census data to estimate the number of new and expecting mothers in Bihar, India. We then carried out a mobile landscaping survey of 3,000 mobile phone users in Bihar to estimate the percentage of new and expecting mothers who had access to mobile phones and had ever used their phone to access value added services (VAS) in the state. We crossed referenced this with the latest quarterly report from the regulator on teledensity in the state. We then carried out concept and price testing research to establish what percentage of their target audience with access to phones might be willing to pay for maternal and child health (MCH) information and how much they would be willing to pay.





Identified average VAS take up rates and applied to estimate subscriber numbers Calculated estimated revenue by year

We then carried out desk research to identify typical adoption rates of mobile VAS, including health services in Bihar, India to identify an average adoption rate. It applied this to the total addressable market of new and expecting mothers and their families with access to mobile phones, who were already using VAS and had expressed willingness to pay for MCH information, to estimate the number of subscribers we expected to adopt the service each month and year. It applied a less optimistic adoption rate to the percentage of the target audience who had never used VAS.

Finally, we calculated the projected revenue that MNOs would earn from the service, based on the price point that target audiences had said they were willing to pay for the service multiplied by the number of families we projected would subscribe.



ESTIMATE THE TOTAL COST OF OWNING YOUR DIGITAL SOLUTION

Map out solution costs and how they might change over time

If you're evaluating different scenarios for making your digital solution financially sustainable, you'll first need to figure out how much it might cost at scale. The first step is to review your major cost categories including hardware and software development, staff and user training, technical support, customer care, connectivity, marketing and regular replacement of devices. Map out all the costs your program will incur over a three to five-year period using data from the past several years as initial inputs. Take into account how these might change year-to-year due to growth in the number of users and factors such as inflation or new taxes.

Map out all the costs your program will incur over a three to five-year period using data from the past several years as initial inputs.

Sort costs into capital and operating expenditures

Once you've identified all the costs associated with making your digital solution sustainable, sort them into capital expenses (CAPEX) and operating expenses (OPEX). CAPEX may include costs such as legal counsel, content development or licenses, research, user testing, software development and deployment, infrastructure procurement and deployment,



In practice | BBC Media Action

The complexity of estimating 'total cost of ownership' while transitioning to government

Government adoption of our mobile health education services has necessitated estimating the total cost of 'owning' each service. For example, in Bihar, we needed to estimate both the capital investment (CAPEX) required to scale Mobile Kunji, our IVR and print-based job aid for community health workers (CHWs), as well as the cost of operating it (OPEX), before the state government would agree to adopt it.

We had already rolled out Mobile Kunji in eight districts in Bihar, demonstrating its efficacy and impact on a range of health behaviors, with support from the Bill & Melinda Gates Foundation. We had then scaled the job aid to several districts in two more states, with support from local government and donors. Thus, when it came time to estimate how much it would cost the government to scale Mobile Kunji across Bihar, we used the rates we had paid, or local government had paid, in other states as benchmarks.

The technology platform that powered Mobile Kunji had already been scaled, so the capital investment required to roll out the service was limited to the cost of printing decks of Mobile Kunji cards, and face-to-face training of CHWs in the remaining districts. The government agreed to cover these costs, if we would use donor funds to train government trainers.

Operating costs were more complex to estimate, because they were dependent on government negotiations with MNOs. The single largest operating cost was CHWs' toll free calls to Mobile Kunji, which we estimated (based on the per minute rate we had agreed with our MNO partners, multiplied by the maximum number of minutes of Mobile Kunji played by CHWs to families each month, multiplied by the total number of CHWs) could cost up to \$700,000 per year at scale. But, we also knew that the government already had an agreement with an MNO for providing Closed User Group SIMs to CHWs, which was worth more than this amount, and that on-net calls to numbers within the CUG were free to CHWs, thus costing the MNO almost nothing to provide.

After months of negotiations, the MNO agreed to integrate our short codes into the CUG, making calls to Mobile Kunji free to all CHWs using CUG SIMs in the state, at no additional cost to government. This significantly reduced the OPEX required to run Mobile Kunji, and meant that the project was no longer responsible for these costs.

Simultaneously, we supported the government in negotiating a cost-effective monthly rate with the same MNO for hosting, supporting and maintaining the Mobile Kunji IVR platform. The MNO, via a back to back agreement with an aggregator, had already been providing this service to BBC Media Action for several years — so all that was required was a transition of contractual responsibility for costs to government, rather than a change in technology solution design.

Thus, eighteen months after the transition process began, the Government of Bihar signed an addendum to its existing MNO agreement, and the contractual transition of Mobile Kunji operating costs from BBC Media Action to state government was completed. security audits and end-user training. OPEX may include costs such as connectivity, server and website hosting, technical support, repairing or replacing devices, customer care, marketing, staff monitoring and supervision, and staff salaries.

This step provides another illustration of how costs will shift over time. At the outset, CAPEX will be high because you'll need to cover all your set-up costs. But once your program is up and running at scale, OPEX should become cost effective as your user base increases and your cost per user decreases. However, be alert to recurring or hidden costs that many digital development programs overlook or mistakenly categorize as one-time costs — for example, handsets or tablets, which usually need to be replaced every three to four years, and the cost of data plans, which can be very expensive at scale in some countries.

Digital development organizations often fail to allocate sufficient funds for marketing their programs to end users, relying only on press releases and public relations to engage target customers.

Determine the total cost of ownership (TCO) for your solution

Create a spreadsheet-based model covering three to five years that captures all your costs broken down into line items, sorted by category type and divided into CAPEX and OPEX. Review the assumptions you made earlier about these costs and how they might change over time, and test them with members of your team and outside experts. Make sure to include costs to support an adequate marketing budget in your total cost of ownership (TCO) model. Digital development organizations often fail to allocate sufficient funds for marketing their programs to end users, relying only on press releases and public relations to engage target customers. In some cases, marketing and distribution costs can eat up to two-thirds of digital service revenues.



© BBC Media Action

Other examples

- For many years, Dimagi implemented digital health programs in various states on behalf of the Government of India. Then a new national nutrition program was envisioned where government staff would lead implementation with only limited technical support from Dimagi. This had significant impact on the TCO for their program. Dimagi found higher costs in two areas that are often underestimated by implementers:
 - Hardware procurement: Costs for acquiring the necessary hardware to support the program were higher, due to lengthy procurement process for new government data center servers and mobile handsets.
 - **Human resources:** Costs to hire and train government technical support staff were significantly higher, due to government restrictions on using third-party recruitment services.

How to

- Download a sample TCO tool here
- Learn more about hidden costs in low-resource environments here



IDENTIFY WHO IS GOING TO PAY FOR THE NEXT PHASE OF YOUR DIGITAL PROGRAM

Reassess your value chain

If you need to become sustainable or profitable before your donor funding or seed capital runs out, it's critical to identify who's going to pay for your digital solution going forward. To answer that question, you could start by reassessing your existing stakeholder value chain — the value that your digital solution holds for each organization that has a stake in it, such as government, MNOs, other private-sector companies, and their contribution to delivering it. The objective is to identify whether this value will motivate organizations to pay for some or all of the costs associated with delivering your solution going forward. If your analysis doesn't reveal sufficient value for your existing stakeholders, you will need to consider other potential payers who might see more value in your solution.

It's also worth considering how your value chain might change over time. For example, new mobile payment options might make existing service providers redundant and reduce your costs, while tighter government budgets could limit the ability of governments to cover costs. Meanwhile, new groups of stakeholders could enter the picture, such as companies seeking to monetize user data.

Identify advantages for potential payers

Once you've reassessed your value chain and identified potential payers for your digital solution, the next step is to identify what they might gain from it so you can articulate its value to them. Potential payers often break down into stakeholders at distinct levels. For example, government officials at the national, state and district level may want different things from your digital solution: making progress towards Sustainable Development Goals targets, winning votes, justifying an existing investment or accessing more funding. National and state-level MNOs may have opposing goals such as improving brand positioning versus hitting a monthly revenue target.



In practice | Esoko

Nothing is sacred, not even your business model

Our business model now exists in a state of constant iteration. In the past year alone we've deleted it and started over four or five times. We've rooted out any sense of complacency, and we approach our business model with the mantra that nothing is sacred.

This process has strengthened the organization overall and informed the development of new services like Insyt, a tablet-based data collection service for social protection and agricultural programs, and Tulaa, an m-commerce platform connecting farmers to finance and inputs — the latter was recently spun-off into a new company. To fund Tulaa's growth, we raised capital from a commercial investor for the first time. Taking commercial investments has forced us to be laser-focused on achieving profitability. This impacts every decision the company makes. For example, when we wanted to add a call center to Tulaa, we had to first assess the costs it would add, determine the value it would bring to the service, and then find a way to balance the two.

Tulaa's investors have set a series of milestones for us and routinely ask to see our business plan, revenue projections and break-even analysis. The next round of funding and the expansion of Tulaa will depend on performance against these milestones. It hasn't been easy, but we think Tulaa should be able to break even within two to three years. The only way to get there is to continue to challenge our assumptions and treat no cost as sacred.

Other examples

The management at Kopo Kopo, a merchant payments platform, tried to replicate the success of their model in Kenya when expanding into Tanzania. They set up a new office and hired people to go out and acquire merchants. But they soon found it was going to take a long time and more money to scale up, and without funders this wasn't possible. Instead, they pivoted to a strategy of licensing their software to banks and MNOs who used it as a tool to build their merchant networks.

How to

- Learn how to map your stakeholder value chain here
- Learn how to profile potential investors here
- Read about success factors for sustainability and scale here
- Explore a range of funding and revenue models for digital development solutions here
- Learn more about how to improve your business model here



Determine payers' ability and willingness to pay

Now that you've calculated how much it's going to cost to run for three to five years, you can assess how much identified payers might be willing and able to pay for your digital development solution. For example, you could use your latest research on ARPU to calculate whether your end users can afford to pay a price that covers your costs. If not, can you find private-sector partners willing to subsidize the cost of running the service? Or does it make more sense to transition costs to the government?

If your digital solution is going to be paid for by private-sector partners or government, you'll need to identify specific potential sources of funding, for example grant-making mechanisms, corporate social responsibility funds, rural marketing budgets or government budget lines. In some cases, information about the limitations or caps on these budgets will be in the public domain. If not, you may be able to find amounts that potential payers have invested in similar projects in the past. Use this information to estimate the amount that each new or existing payer could potentially contribute each year.

Choose the business model that's best for your solution

An analysis of potential payers for the next phase will help you identify the business model that's right for your digital solution. For example, some implementing NGOs have found that public school teachers are not willing to pay for the digital tools they need to use every day as part of their jobs, such as devices and software to create lesson plans or facilitate group learning.

In this situation, a business-to-consumer (B2C) business model — where end users are charged for using a digital product or service — is unlikely to work, particularly if the relatively small numbers of workers might not attract advertisers to your service. You might need to explore a business-to-business (B2B) model, where a public- or private-sector organization covers the cost of providing your solution to end users. Many digital development programs land on a hybrid model that combines revenue from users with payments from governments and private-sector companies (see graphic in the following section).



Many digital development programs land on a hybrid model that combines revenue from users with payments from government and private sector companies.



Common digital development revenue models

Sample revenue model



Grant funded

Donor provides grant to cover all or some of the costs of designing and delivering the service.

Enables research and development using human centered design processes, independent of commercial or political interests. Enables service development for target audiences that are of little or no commercial value to the private sector.



Grants are often short term, and do not ensure long term sustainability.



Advertising revenue or data monetization

Monetizes the value of customer engagement via sale of advertising space or user data.

Capitalizes on the value presented by access to an end-user market.

Low-income, low-literacy target audiences may not appeal to advertisers. Sale of user data to third parties may not be allowed under local data protection law, users may not give their consent to the sale, or it may be challenging to obtain and record informed consent.



Public- or private-sector owned

Governments or private-sector organizations pay for the service, potentially making it free to users.



Provides potential long-term financial sustainability and accessibility for low-income target audiences.



Requires strong evidence of return on investment for private sector, or alignment with existing government objectives or political agendas for the public sector.

1 2 3 4 5 6 7

In any business or service, there are end users or beneficiaries and there are payers, and they aren't always one and the same. The delivery of many digital services for low income people is subsidized by donors or governments, who value the social or economic return on this investment.



By funding source



Pay-as-you-go or pay-per-use

Service is metered and billed to the user.



Creates long-term, sustainable revenue to cover some or all service costs. Useful when users are unable to subscribe to services due to low or no credit on phones.

If service pricing is affordable to low-income users, revenue may be insufficient to cover roll out and marketing costs.



Subscription service

User pays set, recurring fee for continued access to digital service.



Users may be hesitant to commit to long-term use or subscription billing may fail due to lack of credit on users' phones.

Freemium service subsidized by premium service

High-income users subsidize usage by low-income users.

Commercial service enables sustainable delivery of free service to low-income target audiences.

Can be challenging to target same service at very different target audiences.





Business-to-Consumer (B2C) Services

More and more digital service providers are experimenting with models where end-user payments and other forms of revenue can help them reach long-term sustainability. This diagram compares just a few common revenue models across a spectrum of who pays in order to highlight some of the pros and cons of different models. See a broader range of revenue models for digital development programs here.



STEP 4 DDDDD

FORECAST REVENUE FOR YOUR DIGITAL PROGRAM

Use your data to estimate revenue

Revenue forecasting can be a complicated task that requires specialized expertise, but a first step is to go back to your solution's TAM. This figure represents the potential demand for your solution, and will give you a point of reference for your revenue estimate. Next, use data from your audience and payer landscape analyses to estimate revenue from each potential source, and then add them up. Capture these data points and assumptions in a spreadsheet, and factor in projected growth over time. When estimating the number of users, segment them according to their likelihood and probable time frame for adopting your digital solution. For example, young urban men may adopt more quickly than older rural women. Segmenting users also helps identify potential new marketing and distribution channels.

Note that even if your organization will not, and perhaps legally cannot, profit from sales of your digital solution, you still need to estimate revenue for potential commercial partners such as MNOs. Revenue assurance teams in MNOs will not approve commercial agreements or sign contracts with the government unless there is robust evidence that the company will make a profit.

Note that even if your organization will not, and perhaps legally cannot, profit from sales of your digital solution, you still need to estimate revenue for potential commercial partners such as MNOs.



In practice | Esoko

If at first you don't succeed... revise your business model

When expanding to new countries, we ran the numbers and realized that we were losing money. Our old business model relied on a cadre of market enumerators that were expensive to hire, train and manage. It had worked for us in Ghana because we had donor funds to subsidize our losses, but it wasn't a model that could scale. At this point, we could have scrapped our plans for expansion, doubled down in Ghana and sought additional donor funds. That would have been a safe path. Instead, we chose to disrupt our core operating model, embrace the uncertainty and view this as an opportunity for innovation.

The first thing we had to do was unlearn what we thought we knew about the business. We threw out our old financial model and carefully reassessed our costs to find efficiencies. We listened to what the market research was telling us, even when it challenged our assumptions. And we re-examined our pricing, marketing and branding strategies. We needed to track our finances in more detail including cash flow, cash burn rate and profitability.

Sustainable growth meant that funding shortfalls could no longer be covered by personal loans from our founders, as is often done by startup companies. With more detailed and frequent data about our cash on hand, we were able to cut down our cash burn rate by 70%. We did this by making informed decisions to cut loss-making programs and focusing our efforts on products with higher profitability. This ultimately led to us spinning off Tulaa as a separate company.

Other examples

Watch Brent Chism, CEO of TaroWorks, talk about incremental costs and updating revenue forecast.



How to

View a break-even analyses template for financial projections here



Model different revenue scenarios

Once you've developed a baseline revenue estimate, develop a model that lets you play with different assumptions for growth and income from the potential payers you've identified — donors, government, MNOs, other commercial partners and end-user payments. Identify the critical variables in your revenue forecast model (e.g., price, number of users) and analyze the impact of changing their values. Arrive at a series of total revenue numbers for varying scenarios and vet them with internal and external stakeholders, including your commercial partners.

When modeling revenue, it's critical to keep costs in mind because these will determine the speed and scale of your expansion. For example, your marketing or training budget will determine the number of new users you can acquire, while your customer care or monitoring and supervision budgets will impact the number of users you can retain. If possible, test scenarios with your identified payers before you invest too many staff and partner resources, though you'll need to discuss their willingness and ability to do so.

Update your forecasts regularly

Revenue forecasting, just like expenditure forecasting, is not a one-time exercise. Regularly updating your forecasts using the most recent revenue data will enable you to respond quickly and keep unpleasant surprises to a minimum. As your program scales, revisit the assumptions you used for forecasting and check them against actual revenues. Audience research provides useful inputs for forecasting, but you may find that actual willingness to pay differs from predicted willingness. Once you have revenue data, consider why your assumptions might have been mistaken and test other possibilities by following up with small groups of users to see how they respond.

1 2 3 4 5 6 7


Once you've developed a baseline revenue estimate, develop a model that lets you play with different assumptions for growth and income from the potential payers you've identified — donors, government, MNOs, other commercial partners and end-user payments.



STEP 5 DDDDD

DETERMINE TIME TO FINANCIAL SUSTAINABILITY

Estimate how long it will take to become sustainable

Regardless of whether your approach to sustainability is through the public or private sector, you'll need to estimate when your digital program is likely to break even. You can do this by combining your revenue and cost forecasts. If your route to sustainability is government adoption, you'll still need to figure out how much donor funding you need, and for how long, to support a gradual transition of costs to government. Be sure to make conservative scenarios as well as optimistic ones, as it is common to be overly optimistic in assumptions and forecasts.

Step back, reassess and adjust

Once you've compared your revenue with your costs, you may find it's going to take too long to break even, and that you're going to run out of funding too soon. In these circumstances, you might need to look at your costs. Is there any way they can be reduced? Alternatively, could you expand your TAM by adding new features to your solution to reach more people and earn more revenue or investment?

Once you've compared your revenue with your costs, you may find it's going to take too long to break even, and that you're going to run out of funding too soon.



In practice | BBC Media Action Changing direction on the road to sustainability

By calculating the CAPEX and OPEX required to set up, run and market Kilkari, our IVR-based, RMNCH education service for new and expecting mothers, and Mobile Academy, our IVR-based RMNCH training course for Community Health Workers (CHWs) in Bihar, India, we realized that we couldn't break even on call share revenue alone. The amount that poor subscribers could afford to pay was too low. MNOs' network costs could be covered by the weekly subscription fee, but hosting, support and marketing costs could not.

Nevertheless, we decided to launch Kilkari and Mobile Academy as paid for services, because we thought we could make up the deficit in our budget with advertising revenue or sponsorship once we had a sizeable user base. But when we failed to hit our subscription targets (see In practice in Step 2), we realized that we had to identify alternative funding sources to make it free.

It was at this point that we were approached by the Government of India, which wanted to adapt Kilkari to automatically deliver RMNCH education to every woman who registered in its Health Management Information System (HMIS), and provide Mobile Academy to every CHW in India. It asked the Bill & Melinda Gates Foundation to support us in migrating Kilkari and Mobile Academy to a national platform in a government data center, so that the millions of pregnant women and mothers registered in its database could receive Kilkari for free, and up to a million CHWs could take the Mobile Academy training course for free.

It took a little over a year to complete this migration, including adapting the content for national deployment, with support from a consortium of donors: the Bill & Melinda Gates Foundation, USAID and the Barr Foundation. The government took responsibility for contracting the data center, and for procuring a MNO to provide connectivity to the platform. Through this contract, the government is now covering all call costs for Kilkari and Mobile Academy. Thanks to the government's adoption, Kilkari is now providing critical free health information to millions of families, and hundreds of thousands of CHWs in 12 states.



If reducing costs or reaching significantly more people isn't realistic before you run out of money, you may need to adjust your revenue mix or even consider changing your business model altogether. For example, if it's not realistic to think that government can adopt all the costs associated with your digital solution, you may need to charge end users a nominal fee to cover connectivity costs, which can be significant at scale.

Budget sufficient resources for the long road to sustainability

It takes many organizations years to acquire sufficient customers to make a profit or to transition a free service entirely to government. This long wait can work if you plan and secure funding for this period of growth or transition in advance. NGOs and social enterprises need to maintain positive cash flow and a long enough runway to continue operating and find alternative funding if expected revenue or grants don't come through.

For purely commercial digital solutions, developing a clear path to profitability will be essential to recruiting new investors and keeping the ones you have on board. Successful organizations target raising twice as much in cash as they calculate they will need and plan that it will take twice as long as they expect before they meet their fund raising goals.

Successful organizations target raising twice as much in cash as they calculate they will need, and plan that it will take twice as long as they expect before they meet their fund raising goals.

Other examples

In a number of countries, UNCDF supports programs with 'pay-as-you-go' business models, also known as 'pay-go', that offer people and communities flexible ways to pay for solar power and clean cook stoves in the same way they use prepaid mobile airtime. Based on their experience with investing in pay-go energy companies, UNCDF characterizes the lack of sufficient working capital, especially in local currency, as one of the biggest barriers to scaling. The pay-go business is capital intensive whereby assets such as solar power units are pre-financed by the companies and customer payments are then recouped over time.

Several pay-go energy companies have been successful with their capital raise, mostly through investors. In one example, a UNCDF grant commitment of \$250,000 contributed to a pay-go solar company raising over \$22.5 million in blended capital from investors, including \$2.5 million in loans from a private debt provider, and an additional \$20 million in equity from a range of investors, including impact investors, to finance its pay-as-you-go business in Asia and Africa.

UNCDF and other market facilitators have been putting in motion ways to build the confidence of local banks to lend to the pay-go solar sector by developing harmonized portfolio quality indicators and a loan portfolio data sharing platform for financiers, in addition to setting up debt guarantees or refinancing facilities.

How to

- Learn about break-even analyses here
- See a break-even analysis template with data visualizations here



STEP 6 DDDDD

DEVELOP A CASE TO SECURE INVESTMENT

Articulate your answers to the fundamental questions

Use the market research and financial analyses you've done to update your answers to those fundamental questions: What unique value does your digital program bring to each member of your value chain? How do you compare with other ventures looking for the same source of funding and why is your solution a better investment (e.g., higher impact, more scalable, more efficient use of funds, strategic fit with the investor's strategy)? Do you want to deepen your impact for existing target audiences or expand your reach to new ones? How can you structure the program so that you are able to generate value for your stakeholders, cover your costs and expand your impact? Answering these questions is essential to convincing new funders to invest.

Update your business model for financial sustainability

Answering the questions above will either validate your chosen route to financial sustainability, or reveal that it's unlikely to ever become independent of donor funding. If the program cannot become financially sustainable in any scenario, it may be advisable to plan an exit.

Build business cases for partners into a revised business plan

Once you've finalized your business model, you'll need to translate it into an updated business plan for potential investors. Public- and private-sector investors need to see your model laid out in a way that shows the social and business value of the digital solution and the investment required to deliver it.

You may also need to develop separate business cases for different stakeholders — one projecting revenue for MNOs, another projecting the total cost of impact over time for government, and still another projecting cost per customer acquisition for other commercial partners. Remember that a business plan is a living document, and you don't have to be a business to need one. Constantly update it to reflect the evolution of the service and new market opportunities.



In practice | BBC Media Action

Applying private-sector learning to public-sector sustainability

When we first designed Kilkari and Mobile Academy, we wanted to make it financially sustainable at scale by charging subscribers through their mobile phones. To do this, we had to prepare business cases to persuade six MNOs in India to partner with us.

We used market research to identify an affordable tariff, and to estimate the Total Addressable Market (TAM) for each MNO, based on its market share. We worked with the GSMA Development Fund to use this data, in conjunction with our marketing strategy, to estimate how many Kilkari subscribers we could acquire — by MNO — each week, and how many minutes they would consume. We then calculated the revenue that each MNO would earn, based on their proposed revenue share. We used this to successfully negotiate partnerships with all six MNOs.

When the government decided to adopt Kilkari and Mobile Academy, making the services free to new and expecting mothers and Community Health Workers (CHWs), our solution design changed. Since we no longer had to integrate with MNO billing systems, the government could procure just one MNO to provide connectivity.

The government used its Health Management Information System (HMIS) data to estimate the TAM for Kilkari — i.e. all women who had registered a unique mobile number, along with their pregnancy or the birth of their child, at their local primary health center, as well as the TAM for Mobile Academy, based on the number of CHWs registered in its database.

The government used this data to estimate the total number of Kilkari subscriptions that could be activated — initially in six states, but also at national scale, and the maximum number of minutes of content that these subscribers would consume each month, to prepare a Request for Proposal (RFP) to procure a MNO. They did the same thing for Mobile Academy.

MNOs used the government's estimates to calculate how much revenue they would earn each quarter, and the price they would need to charge for calls to cover their costs and make a profit. The government, as per its procurement policy, selected the lowest MNO quote.

Other examples

Akros quantified the cost of implementing its sanitation program in Zambia to become more cost effective and then to sell their model, or parts of it, to other countries or donors. They offered potential clients a menu of packages, such as Phase 1 only or Phases 1, 2 and 3 together. They knew it cost approximately \$120,000 in Phase 1, \$180,000–\$190,000 in Phase 2, and \$50,000 in Phase 3 per district per year for a total average cost of \$1.64 per individual. This packaging was very attractive to donors and government and allowed them to pick how many districts they wanted to target with a clear sense of the cost.

How to

- Learn how to create and update your business plan here
- See a list of guidelines on investor pitches and examples of pitch decks here



RESOURCE ROLLUP

Who do you need?

Re-evaluating your business model will take time, effort and human resources that you may not currently have. The table below indicates the types of human resources you will need to complete the steps in this module. Many of these activities may be short term, which means contracted or partner resources could be an option.

Activity	Resource type
Value chain analysis	Business Analyst/Strategist (contracted)
Market/user research	Quantitative Analyst, Mid-level Researcher
TCO model creation	Financial Modeler/Analyst, Accountant
Revenue forecasting/ Break even scenario analysis	Financial Modeler/Analyst

Pro tips

- **Challenge your assumptions.** You may feel that certain aspects of your program can never change, like not charging users for a service, but implementers say that everything should be questioned when you're at an inflection point.
- **Talk to your partners early.** Don't spend too long formulating a new approach to bringing in revenue. Talk to your key public- and private-sector partners about your ideas, get their feedback and iterate.
- **Bring in flexible help.** Rapid hiring during an expansion can be daunting, but short-term consultants and advisors may be able to fill gaps. Think about discrete activities related to business models that could be more effectively done by outside resources.

BEYOND SCALE | Business Model Module: Resources

Referenced resources	
1. UNDERSTAND WHAT THE CHANGING LANDSCAPE MEANS FOR YOUR DIGITAL SOLUTION	 Case study: Kilkari: a maternal and child health service in India, lessons learned and best practices for deployment at scale Tool: SWOT Analysis Template Tool: SWOT Analysis Data Visualization Guide: The Ultimate Guide on How to Conduct Market Research Guide: What's Your Startup's TAM (Total Addressable Market)? A Practical Guide to Crunching the Numbers
2. ESTIMATE THE TOTAL COST OF OWNING YOUR DIGITAL SOLUTION	 Tool: Total Cost of Ownership Model Report: ICT Sustainability Primer: What to Consider When Designing ICT Projects for Low-resource Environments
3. IDENTIFY WHO IS GOING TO PAY FOR THE NEXT PHASE	 Report: Sustainable Financing for Mobile Health (Section 1: Financial Sustainability and Value Chain Analysis) Report: Emerging Market Entrepreneurs & Silicon Valley Report: Sustainable Financing for Mobile Health (Section 2: Success Factors for mHealth Financial Sustainability and Scale) Example: 27 Revenue Model Options for B2B, 27 Revenue Model Options for B2C and 29 Revenue Model Options for Industrial Enterprises Training: Mastering Business Models
4. COMMON DIGITAL DEVELOPMENT REVENUE MODELS	Article: Exploring Alternative Funding for Mobile Platforms
5. FORECAST REVENUE FOR YOUR DIGITAL SOLUTION	 Template: Break-Even Analyses for Financial Projecting
6. DETERMINE TIME TO FINANCIAL SUSTAINABILITY	 Guide: A Quick Guide to Break-Even Analysis Tool: Harvard Business School Break-Even Analysis
7. DEVELOP A CASE TO SECURE INVESTMENT	 Training: Santa Clara University's My Own Business Institute: Free Online Business Courses Article: How to Create a Great Investor Pitch Deck for Startups Seeking Financing



BEYOND SCALE | Business Model Module: Glossary

Term	Definition
Average revenue per user (ARPU) Source	The total revenue divided by the number of subscribers.
Break even Source	The point at which revenue received equals the costs associated with receiving the revenue.
Burn rate Source	The rate at which an organization is consuming or burning its financing or store of capital to support operations in excess of cash flow.
Business model Source	A plan for the successful operation of a business which identifies sources of revenue, intended customer bases, products and details of financing.
Business plan Source	A formal statement of business goals, reasons they are attainable and plans for reaching them. It may also contain background information about the business organization or team.
Business-to-business (B2B) Source	A situation where one business makes a commercial transaction with another.
Business-to-consumer (B2C) Source	A service or product exchange from a business to a consumer, whereby merchants sell products to consumers.
Capital expenses (CAPEX) Source	Funds used by a company to acquire or upgrade physical assets, such as property, industrial buildings or equipment.
Incremental costs Source	The increase in total costs resulting from an increase in production or other activity. Also called marginal cost.
Interactive voice response Source	An automated telephony system that interacts with callers by gathering information and routing calls to the appropriate recipient.
Market share Source	The portion of a market controlled by a particular company or product.
Operating expenses (OPEX) Source	Ongoing cost for running a product, business or system, such as rent, marketing or payroll.



BEYOND SCALE | Business Model Module: Glossary

Term	Definition
Pay-as-you-go model Source	A system where the consumer pays for a service before using it and cannot use more than they have paid for.
Payers Source	A person or organization that gives someone money that is due for work done, goods received or a debt incurred.
Positive cash flow Source	A position where the cash that flows in to the organization is higher than the cash amount that flows out during the same period of time. A positive cash flow will not indicate for sure that profits have been made, but it means that finances are improving for a firm.
Revenue assurance Source	A function within some telecommunications companies designed to ensure that corporate activities improve revenue generation and/or profitability.
Revenue share Source	The distribution of profits and losses between stakeholders, such as partners, employees, or companies in an alliance.
Runway Source	The length of time in which a company will remain solvent assuming they are unable to raise more money.
Sustainable Development Goals	A set of 17 global goals developed by the United Nations for improvements in areas such as health, education, poverty reduction and environmental well-being by 2030
Strengths, weaknesses, opportunities and threats (SWOT) analysis Source	A structured planning method that evaluates internal and external factors that are favorable and unfavorable to achieving a business objective.
Total addressable market Source	The total market demand for a product or service.
Total cost of ownership Source	A financial estimate intended to help buyers and owners determine the direct and indirect costs of a product or system.
Value chain Source	The full range of activities that organizations go through to bring a product or service to their customers, including production, marketing and the provision of after-sales service.



Digital Impact Alliance

LEGAL, POLICY AND REGULATORY

BEYOND SCALE: How to make your digital development program sustainable





LEGAL, POLICY AND REGULATORY

MODULE SUMMARY

In the initial stages of your digital development program — particularly if it was a pilot with a limited budget — your focus may have been on conducting research and development, building your program's operations and tracking your results, rather than on limiting your legal liability or complying with national laws and regulations. If you're now planning to scale your digital development solution, take it to a new geography, enter into new commercial partnerships or transition it to government, it's a good time to take stock of your legal situation.

Preparing your program for the next phase means reviewing and revising your service and partner contracts and developing proactive policies in areas such as user privacy, user consent and intellectual property (IP). As with the other program elements that you are revisiting, a thorough reassessment of the landscape in which your solution operates is required. Laws and regulation are constantly evolving in areas such as data protection.

In earlier stages, in-house knowledge of legal implications may have sufficed, but at this stage of scale, professional legal advice is warranted. Expert consultation from a law firm with telecommunications and ICT expertise can help you evaluate your existing contracts and compliance with relevant regulations. While legal consultation can be expensive, building legal costs into your budget can help avoid costly fines or liabilities in the future.



BEYOND SCALE | Legal, Policy and Regulatory Module

This module draws on interviews conducted with digital development leaders in organizations including BBC Media Action, Esoko, Kapil Sapra & Associates, TaroWorks, Kopo Kopo, Cell-Life, Signum Advocates and Vital Wave. The examples they share highlight the challenges and pitfalls they navigated on the road to scale and sustainability. Note that the nature and sequence of the steps contained in this module are highly dependent on the vertical, sector and geography in which your solution operates, and many of the steps may happen in parallel.

After reading this module, you'll be able to plan your next legal steps, including how to:

- 1 Assess the impact of evolving laws, policies and regulations on compliance
- 2 Ensure a flexible contracting approach to accommodate changes
- ▶ 3 Clarify ownership of intellectual property
- 4 Review software, hardware and content licensing terms
- 5 Clarify, limit and manage liability
- 6 Review and update service level agreements

Disclaimer: All templates and guidance provided in this guide are illustrative only and should not be considered legal advice. Readers should seek professional legal advice prior to executing any contracts or agreements.



Key steps

ASSESS THE IMPACT OF EVOLVING LAWS, POLICIES AND **REGULATIONS ON COMPLIANCE**Assess legal, regulatory and policy changes in your digital landscape Monitor evolving laws on data privacy and protection Get informed user consent that enables expansion or transition Comply with data-hosting laws and regulations

ENSURE A FLEXIBLE CONTRACTING APPROACH TO ACCOMMODATE CHANGES Create or renegotiate master agreements with key partners Use addenda to make changes to scope of work, commercial terms and timeframes Create mechanisms for managing changes to your solution

- CLARIFY OWNERSHIP OF INTELLECTUAL PROPERTY (IP) Make sure your employee contracts prevent IP confusion or disputes in the future
 Clarify IP ownership in contracts with technical partners or vendors
 Ensure that you have the right to use solution content

REVIEW SOFTWARE, HARDWARE AND CONTENT LICENSING TERMS Ensure hardware and software licenses allow for transition of program ownership Negotiate reduced software license costs for increased scale Assess restrictions for open source or Creative Commons licenses

CLARIFY, LIMIT AND MANAGE LIABILITY

- Determine who assumes liability and under what circumstances
 Cap liability at a manageable level
 Ensure effective indemnification
 Consider the liability of open source vs. proprietary software and content

REVIEW AND UPDATE SERVICE LEVEL AGREEMENTS (SLAS) Define technical support requirements for scale Ensure your technical partners can meet SLA requirements Watch out for penalty clauses



STEP 1 DDDDD

ASSESS THE IMPACT OF EVOLVING LAWS, POLICIES AND REGULATIONS ON COMPLIANCE

Assess legal, regulatory and policy changes in your digital landscape

In the first few years of your program's operations when the number of users was relatively small, you may not have needed to focus heavily on legal, regulatory and policy considerations. Yet to operate at scale, your digital development solution will not only need to comply with laws, regulations and policies designed to protect end users and their personal data, it will also have to align and comply with policy and regulatory frameworks at the national or sub-national level in different sectors, which have likely evolved since your operations began.

For example, many countries have adopted national strategies in digital health, financial services and education to ensure that solutions align with their policy and program priorities and to promote solution interoperability and scalability. In addition, in highly regulated industries such as financial services and health, government ministries and agencies constantly issue updates to regulation and policy guidance that affect compliance with operators of any solution, digital or otherwise — such as Know Your Customer (KYC) and settlement requirements for payments solutions. It's important to review strategy documents, legislation and policy guidance relevant to your solution, but it's also worth regularly talking to your contacts in government about what their requirements mean for your solution's ability to comply. They may also be able to advise you on how you can get involved in the committees and advisory groups that shape these policies.

Monitor evolving laws on data privacy and protection

Laws and regulations designed to protect and limit the use of people's personal information vary widely from country to country. They are also constantly evolving and subject to change by lawmakers and regulators. It's important to stay up to date with these laws because they may have significant implications for the design and delivery of your digital solution. As countries with little or no regulation implement laws, you'll need to monitor them closely with your legal adviser and ICT partners, including mobile network



In practice | BBC Media Action

The challenges of taking informed consent from low-income, low-literate users

One of the reasons we set up a call center in Bihar, India was to try to keep our database of more than 100,000 Community Health Workers (CHWs) up-to-date and accurate. Ninety-eight percent of CHWs in the state are pay as you go mobile customers, and change their SIM cards regularly in response to MNOs' special offers.

As a result, CHWs' mobile numbers are frequently changing, which makes it challenging to monitor and report on their take up and usage of our reproductive, maternal, neonatal and child health (RMCH) education services (Mobile Kunji, an IVR and print-based Job Aid, and Mobile Academy, an IVR-based training course).

Before our call center could begin capturing personal data from CHWs, such as their name, mobile number and location, they needed to take their consent to comply with data protection legislation in India. Our legal advisers drafted a consent script designed to be read by call center agents to CHWs. Since the requirement of law is to take informed consent by letting the data providers (in this case, CHWs) know the purpose of collection; the details of the collector of the data, as well as processors and recipients of the data, the script had to be drafted carefully.

Further, the consent was not just required for use by BBC Media Action, but also by its partners to meet the objective of the project. The script was accordingly drafted, stating that the data was being captured on behalf of the government, and would be stored, processed and used by BBC Media Action and its partners to deliver specific mHealth education services, up until a specific date, as part of a specific program.

After the script was drafted and translated into Hindi, we then user-tested it with CHWs. Unsurprisingly, we found that typical consent terms such as 'data', 'database', and even 'service' and 'processing' (in the context of mobile services) were alien to most rural women in Bihar and hence it was not possible to take typical 'informed consent'. Thus, the language in the consent script had to be modified to make it comprehensible to low income, low illiterate rural women, so that they could give genuinely 'informed' consent.

Our legal advisors also advised us on the mode of obtaining consent, and storing such consent, to be able to prove consent, if the need arose. To meet the requirements of different laws, each call had to be recorded and the consent stored in the form of an audio file for a period of three years after the completion of purpose for which the data was collected.

operators (MNOs), technology solution providers and data-hosting companies. Regulatory requirements, standards and laws that you'll need to monitor include those that govern data privacy, payment and settlement systems (if digital payments are involved), digital marketing (such as telemarketing calls), use and transmission of personal data (such as medical records) and user consent (see below). Most national governments require that such laws and regulations be published on government websites with a point of contact in both national and sub-national governments.

Get informed user consent that enables expansion or transition

While laws vary widely between countries, you normally need to get each user's consent to capture, store and use their personal information. Most consent laws stipulate that you must explain to the user why you want to capture their data and how you're going to use it in order for them to give you informed consent. What varies is who is responsible for obtaining consent from users and how consent is obtained, recorded and stored. Consent is especially important when collecting data for research purposes.

If you're considering scaling your solution to new geographies, working with new partners or transitioning to government, you'll need to make sure that you already have consent from your users to give partners access to their data or that their existing consent permits relevant changes to how their data will be handled. Otherwise you'll need to obtain new consent. Without that specific informed consent, it might not be legal to allow a third party to access their information. In some countries, compliance depends on how laws and regulations assign responsibility to those collecting the data compared to those who process or store the data. It's worth consulting with a lawyer and an ethics review board to ensure that the consent language that needs to be communicated to your users is short, accurate and easy to comprehend yet broad enough to enable expansion and transition in the future.

Comply with data-hosting laws and regulations

Each country has different laws about where users' data can be hosted. For example, countries such as China, India, Indonesia and Nigeria do not allow any identifiable user data to be sent or stored outside the country. Other countries, for example, South Africa, don't explicitly prohibit transmission of data across borders but may insist on such a ban for digital solutions in areas such as public health or education. The sensitivity of the data may influence where and how it can be hosted or transferred, and countries define sensitive in diverse ways. Cloud-based hosting may be cheaper and easier to maintain, but if the servers where data resides are in another country and transmitting data to them violates government regulations, you'll have to find another way forward. Complying with these laws and regulations could have serious implications for your software and hardware decisions, technical support solutions and costs at scale. In addition to talking with your lawyers about this issue, have conversations with your vendors and solution partners about options and relevant regulations, especially those who work in multiple geographies and navigate these issues regularly.



Other examples

Watch Kenneth Muhangi, Managing Partner at Signum Advocates, talk about compliance with data privacy laws in Uganda.

Watch Brent Chism, CEO of TaroWorks talk about ensuring compliance with local markets for a merchant payment solution in Tanzania.





In order to ensure the personal data collected from expectant mothers and stored by the MomConnect program of South Africa's National Department of Health would be protected, partners worked with the government to develop a data transfer and privacy protocol. This is a standardized format and process for transmitting data safely between devices, which allowed them to safely host the data on a server within South Africa. Read more about MomConnect here.

How to

- Compare the strength of international data-hosting and transfer laws here and learn more about international data security standards here
- See detailed examples of data protection legislation in South Africa here
- View the Mobile Privacy Principles, based on recognized and internationally accepted principles on privacy and data protection here
- See an example of informed consent language for mobile health solutions here and a compilation of national standards for privacy and data protection in over 100 countries here



ENSURE A FLEXIBLE CONTRACTING APPROACH TO ACCOMMODATE CHANGE

Create or renegotiate master agreements with key partners

You can save yourself considerable time and legal fees if you create a flexible legal framework for each key partnership in the form of a master agreement. This agreement defines and covers the legal terms of the relationship between contracting parties, addressing topics such as intellectual property (IP), liability, indemnity, renewal, termination and data protection, which may remain relatively static for an extended period.

Specifics about geography, scope of work, project plan and commercial terms, which are likely to change as your program grows, can then be attached to the master agreement as annexes. These might take the form of separate annexes covering discrete topics or a single statement of work.

Use addenda to make changes to scope of work, commercial terms and timeframes

If you have a master agreement in place and your program and agreements with partners and vendors need to change, then changes in the scope of work, project plan, geography, timeframe or commercial terms can be executed as addenda and attached as separate annexes to the master agreement. The content of these addenda can be specified by technical or commercial in-house staff working on the project in collaboration with their technical or commercial partners. However, for such addenda to have legal and binding effect, they must be executed according to the procedure specified in the master agreement and by the people authorized to do so.

This approach allows your legal counsel more flexibility, because they won't have to renegotiate the legal terms in the master agreement every time your program changes. This step can reduce legal review from several hours to as little as 15 minutes. Your legal adviser could even produce a standard template for addenda which will make it even quicker and easier to update specific terms.



In practice | Kapil Sapra & Associates

Watch Kapil Sapra from **Kapil Sapra & Associates** explain how to structure legal agreements to enable and accommodate scaling up or down, or transition of ownership to a partner.



Other examples

Watch Kenneth Muhangi, Managing Partner at Signum Advocates, talk about why you need to have an ICT lawyer.



Watch Brent Chism, CEO of TaroWorks, talk about his time at Kopo Kopo and why they needed a lawyer when expanding to new markets.



How to

- See a sample master services contract for IT services here
- Read about the steps involved in designing an effective change control process here



BEYOND SCALE | Legal, Policy and Regulatory Module: Step 2 of 6



Create mechanisms for managing changes to your solution

When planning the expansion of your digital program, having clear change control mechanisms can help you execute and track amendments to your partners' scope of work. Change control is the process through which requests to change a project or solution are evaluated and acted on. Changes can include enhancement to connectivity infrastructure or modifications to the content you provide to users of your solution. For such changes, formal contract addenda may not be required. As with contract addenda and SOWs, creating templates in advance for changes that you and your partners mutually agree to will minimize confusion or disruption, as will clear communication processes for making changes. However, you need to clearly identify the provisions that can be modified through change control mechanisms. Change control agreements should be easy to comply with for both your team and your partners' and as free from legal jargon as you can make them.



When planning the expansion of your digital program, having clear change control mechanisms can help you execute and track amendments to your partners' scope of work.



Data protection differs from one side of the globe to the other

Protected Health Information (PHI) in the United States

Personal information in the U.S. is governed by broad national and state privacy laws, but in the health sector this data is governed by the Health Insurance Portability and Accountability Act (HIPAA). HIPAA states that anyone who creates, receives, maintains or transmits PHI is legally responsible for protecting it from falling into the hands of anyone who does not legally have access to it. The law classifies the following data as PHI.

- 1. Names
- **2.** All geographical identifiers smaller than a state, except for the initial three digits of a postal address code
- 3. Dates (other than years) directly related to an individual
- **4.** Phone numbers
- 5. Fax numbers
- 6. Email addresses
- 7. Social Security numbers
- 8. Medical record numbers
- 9. Health insurance beneficiary numbers
- **10.** Account numbers
- **11.** Certificate/license numbers
- 12. Vehicle identifiers and serial numbers, including license plate numbers
- 13. Device identifiers and serial numbers
- 14. Web Uniform Resource Locators (URLs)
- **15.** Internet Protocol address numbers
- 16. Biometric identifiers, including finger, retinal and voice prints
- **17.** Full face photographic images and any comparable images
- **18.** Any other unique identifying number, characteristic or code except the unique code assigned by a specific service provider

Minimum civil penalty for violation:



\$100 per violation, with an annual maximum of \$25,000 for repeat violations

Maximum civil penalty for violation:

\$50,000 per violation, with an annual maximum of \$1.5 million

Maximum criminal penalty for violation:

A fine of up to \$250,000 or imprisonment up to 10 years

Source



Data protection requirements differ depending on where you are in the world. Failing to protect the personal data of your customers, users or beneficiaries can result in severe consequences. The examples shown here illustrate how different the rules can be from country to country, and how important it is to know and adhere to them carefully.

Sensitive Personal Data or Information (SPDI) in India

In India, personal information refers to any information that relates to an individual that can be used either directly or indirectly to identify him or her. In September 2017, the Supreme Court of India cited the risks posed by digital data collection in ruling that privacy is a constitutional right, opening the door to stricter enforcement of data protection and use laws and regulations.

Sensitive Personal Data or Information (SPDI) is a subset of personal information that includes the following data. Information about individuals that is available or accessible in the public domain (assuming it complies with national laws) is not classified as SPDI.

- 1. Passwords
- Financial information such as bank account, credit or debit card, or other payment instrument details
- Physical, physiological and mental health condition
- 4. Sexual orientation
- 5. Medical records and history
- 6. Biometric information
- Any detail relating to these items that a company or organization collects, stores or processes to provide a service





Maximum civil penalty for violation: A fine up to IN₹ 5,00,000 INR (\$7,820) Maximum criminal penalty for violation:

Imprisonment for a term of up to three years

Source



CLARIFY OWNERSHIP OF INTELLECTUAL PROPERTY

Make sure your employee contracts prevent IP confusion or disputes in the future

Nearly all digital development programs involve the creation of IP relating to the content, hardware, software or other technology used to deliver a solution, and clarifying IP ownership with respect to your employees is a requirement for scale. Typically, any IP produced by a person during the term of their employment belongs to the organization that employed them. Implementers who have dealt with this issue suggest making sure that your employee contracts clearly define what "working for the organization" means. For example, does it refer only to work done during office hours when they are using office equipment, or does it include any professional activity? Does it cover only the IP produced by an employee individually or IP created jointly with other employees?

Employee contracts should include clauses specifying expectations around assignment and assumption, confidentiality, conflicting employments or engagements, and protection of third-party information (including personal data of customers or users). But including these items in contracts isn't always enough to prevent problems. You need to train current employees and potential new hires to make sure they understand what these terms mean and the employment conditions around them.

Clarify IP ownership in contracts with technical partners or vendors

Contracts should specify the IP rights to work created by consultants, contractors or vendors. The terms of each contract may differ. If you want your program to own the IP in your digital solution, use a contract that clearly defines work produced by contractors or vendors as work for hire or made for hire and explicitly assigns the IP ownership to your organization. Make sure you limit the contractor's or vendor's right to use the IP to work related to the contract only and for a set period of time. It's particularly important to resolve IP issues up front when collectively creating open source software, because sole IP ownership by one of the partner organizations can reduce confusion and simplify



In practice | BBC Media Action

Why we retain IP ownership, and control of our content through licensing

BBC Media Action always retains ownership of the Intellectual Property (IP) in its content. This isn't because we want to make money from selling it. And it's not because we want to limit the use of our content; BBC Media Action regularly licenses its content for free to others.

Rather, it's because we need to retain control over the content as it has liability attached to it, and appropriately license our content to others without exposing ourselves to undue liability. The global recognition of the BBC brand is a huge opportunity, but it can also make us a target for legal action and reputational damage.

We were willing to license our content to third party aggregators/ MNOs to deliver our mobile health education services in India, despite having to accept hundreds of thousands of dollars of liability, because we had created it, owned it, and could confidently vouch for its accuracy. The situation would have been much more complicated if we hadn't owned the IP in the content, or had shared the IP with other organizations. Our licensing terms also enabled us to control how much MNOs charged for the content (a rate we knew poor families could afford), and to control the geographies in which it would be accessible.

Controlling the location of distribution can be important, particularly with health information, because government health regulations, prevalence of diseases and availability of medical supplies and services vary from geography to geography. We would not want our content to be distributed in geographies where the information was inaccurate or against government regulations.

Our content license also does not allow modification by others; again, because we need to limit liability and ensure quality. If we allowed others to edit our content after licensing it, they could introduce factual inaccuracies. As the known creators of the content, this could expose BBC Media Action to legal action and reputational damage if the inaccuracies caused harm or offense. None of these precautions limits our commitment to global access to our content, through licensing.

How to

Search WIPO Lex, the world's most comprehensive source of data for international treaties and national laws and regulations about IP, here

- See a work for hire template here
- View a template for assigning ownership of IP created by employees to the organization who employs them here and a template for selling IP to another organization here



BEYOND SCALE | Legal, Policy and Regulatory Module: Step 3 of 6



the process for expanding its distribution. Discussing IP ownership issues proactively with partners as you're negotiating or renegotiating contracts can prevent expensive and disruptive disputes later on, especially as new IP is created.

Ensure that you have the right to use solution content

The technology your solution relies on is important, but so is the content it contains. You can create your own content, buy it from someone else, use open source content, crowdsource it or provide a platform for user-generated content. Regardless of which model you choose, you need to make sure you have the rights to distribute or publish content, modify it, sell it or transition it to the government without violating someone else's copyright or licensing terms. If you are co-developing content with other organizations, consider the IP ownership issues discussed in the previous paragraph. If you're transitioning ownership of a digital program to government or another organization, it may be possible to assign IP rights to the new owner while still retaining a right to use the IP in the future. Be sure to include such provisions in your contracts and written agreements.



Discussing IP ownership issues proactively with partners as you're negotiating or renegotiating contracts can prevent expensive and disruptive disputes later on, especially as new IP is created.



STEP 4 DDDDD

REVIEW SOFTWARE, HARDWARE AND CONTENT LICENSING TERMS

Ensure hardware and software licenses allow for transition of program ownership

If you plan to transition your program to a government, it is critical to verify that your software and hardware licenses can be scaled up and transferred to a third party. Many proprietary software licenses are restricted to a specific project and time period and cannot be transferred without a new agreement. However, it may be possible to negotiate irrevocable licenses that are transferrable to a specified third party at no additional cost and in perpetuity. The possibility of any future expansions and transitions should ideally be part of your master agreement, even if these provisions are non-binding. Language allowing the replacement of an old contract with a new one without requiring permission from the vendor or provider should also be included. The transfer of hardware and software to a third party could also carry a significant tax burden, which needs to be evaluated by a tax expert.

Negotiate reduced software license costs for increased scale

Many proprietary software licenses are restricted by capacity — number of users, volume of messages or minutes, number of machines — which could make it impossible for you to scale without purchasing new licenses and incurring additional costs. Estimate the capacity that you'll need at various levels of scale and negotiate reduced licensing costs as the scale of use increases. While it would be ideal to negotiate unlimited licenses, this is usually only possible with software providers who have a strong need for your business or see other advantages in granting a limitless license. If you have multiple vendor options, see if you can use that to your advantage in negotiating these terms.

Assess restrictions for open source or creative commons licenses

Open source software and content is also covered by licenses, which can be quite restrictive. For example, these licenses may require use of the content or software purely for not-for-profit use. Or they may state that the content or software can only be offered to



In practice | Esoko

Licensing our platform and content to resellers

In order to scale our agricultural market pricing platform into new countries we adopted a reseller model where we licensed use of our platform and our content to external organizations. Our agreements with resellers clearly state that when licensing our platform we still retain full IP rights for both the software platform and the content created for it. This remains true even if we develop specific features or content for a reseller.

In some cases, we build in clauses to our agreements that restrict us from sharing content that we have developed for a single reseller with any others. This provides the reseller with exclusive use of specific, licensed content even if we retain the IP. We also restrict our resellers from sharing any content they have licensed from us without our written consent.

How to

- See a template for a content licensing agreement here
- Read a list of FAQs related to Creative Commons licenses in a global health context here
- Read about software ownership and long-term sustainability issues in digital development programs here

low-income end users, in cases where the license owner is making money from sales to middle-income audiences and doesn't want to undermine their core business. The terms of the license may also not allow you to take the content or software to a new country or sublicense it to a third party, such as the government.

Many content licenses, including certain Creative Commons licenses, do not allow modification of the content because of liability concerns. In other words, if you modify the content and introduce errors or biases into it, then the creator and licensor of the content may still be found liable by a court for any damages incurred by a user. If you or your government partner want to modify the content, you need to make sure your content license allows this.



DETERMINE WHO ASSUMES LIABILITY AND UNDER WHAT CIRCUMSTANCES

Determine who assumes liability and under what circumstances

Liability — defined as the financial or criminal responsibility an organization assumes for harm or damages caused by its activities — is a frequent concern for partners involved in digital development solutions. Channel partners who publish content or deliver services, such as MNOs, frequently include in their contracts that they are not liable for damages caused by content or service delivery. In fact, most MNO contracts will make you — as the provider of the content or the service — liable if the information given is incorrect or if the service is faulty and results in financial loss or physical harm to the user. In that circumstance, you may need to compensate users for their losses.

Channel partners who publish content or deliver services, such as MNOs, frequently include in their contracts that they are not liable for damages caused by content or service delivery.

If you're using licensed content or software, you can usually pass the liability to the owner of the content or software. However, most open source software and content licenses absolve their creators of any liability which means that you might be responsible for paying for any losses. On the other hand, if there is a technical fault in the services provided by the MNOs, such as lengthy downtime for interactive voice response or data messages, the MNOs need to assume liability.



In practice | BBC Media Action

The challenges of limiting liability for content and quality of service

One of the biggest challenges BBC Media Action faced when negotiating agreements with six MNOs in India was how to limit liability. Most of the MNOs insisted on using their standard legal templates which exposed us to unlimited liability for our content and the quality our mHealth education services. This was not something we could agree to, and it took months of legal negotiations to limit this liability.

Content liability was particularly worrying, as the generic clauses provided by the MNOs made us legally responsible for any damages resulting from offense caused to service users. Given that our content deals with sensitive issues such as family planning, it was possible that someone could find the content offensive because of social norms.

Fortunately, our lawyers managed to cap and define our liability. We were able to qualify the clauses relating to offense to state that the content had to comply with the laws of India, and any damage allegedly caused had to be proven in a court of law.

Liability in our MNO contracts for service quality was also a cause for concern because we had to sign up to very tough service level agreements (SLAs). Some of these SLAs insisted on 99.999% up time, fixes to critical faults made within an hour, and financial penalties if we failed to meet the SLAs.

Our aggregator partner was willing to take responsibility legally for its role in meeting these SLAs, but our technical NGO partner — who was responsible for our open source back end system — was not willing to commit, because it had only a small team of engineers based in the United States who worked an eight-hour day. Eventually, our donor agreed to cover their liability and we were able to launch.

Other examples

Watch Kapil Sapra from Kapil Sapra & Associates debunk a myth about liability and compliance when working with government.





Limit and cap liability at a manageable level

At scale and if not clearly limited and capped in your contracts, financial damages resulting from liability can be potentially crippling to your program. The scale of liability will depend on the nature of the service and on how closely associated service providers are with it. For example, if an MNO's brand colors and logo are on a service, they will be at greater legal risk, however many MNOs' default position will be that content or mobile technology solution partners accept unlimited liability.

Liability for third-party providers that you contract with for content and software should be as broad as possible, because issues related to these components could have damaging impacts on the entire program. Protect yourself by clearly capping your own liability for things like inaccurate content or faulty service at a well-defined, manageable level in the contract, with no exceptions to the liability cap. Liability insurance also protects your organization if something goes wrong.

Ensure effective indemnification

Defining and agreeing on contractual terms of indemnification — which spell out the conditions under which one party compensates another for losses — can be challenging, and a lawyer's inputs are especially important here. A key question to ask as you negotiate with new partners is whether you might be held liable for their actions or if a case could be brought against you because of your relationship with them.

Your legal adviser can help develop language that protects you from liability for other parties' actions or faults. You also need to consider how much control you might have over how your partner responds to legal action. If they take years to resolve an issue, will your digital solution be suspended or lose its reputation in the meantime? Lawyers on both sides will usually try to ensure that indemnification clauses apply to both organizations and that the contract has language that discourages litigation.

Consider the liability of open source vs. proprietary software and content

Using open source software typically requires the user to agree to terms that absolve the creator of that software of any liability. Many digital development programs start by using open source software because the code is available at no cost, but risk for liability expands if the software is modified during the project or if it malfunctions as the program scales. Proprietary software companies, on the other hand, may offer warranties or liability indemnity for their software, which means that they take responsibility for potential damages caused by malfunctioning software. The same conditions may apply to content. Research the pros and cons of open source and proprietary software options to understand what liability providers require you to assume.



How to

- View a sample contract self-assessment checklist and sample contract clauses here
- See more sample indemnification and insurance clause here
- Read more about the importance of including an indemnification clause here
- Read more about the liability assumed by mobile application distributors, developers, and users here

A key question to ask as you negotiate with new partners is whether you might be held liable for their actions or if a case could be brought against you because of your relationship with them.



STEP 6 DDDDD

REVIEW AND UPDATE SERVICE LEVEL AGREEMENTS

Define your technical support requirements for scale

Until now, you may not have legally defined technical support for your digital solution. For example, the same software engineers who built your solution may be providing support remotely from another country. But if you are now planning to scale to more users or new geographies or deliver a digital solution at scale on behalf of the government, you need to make sure that you have professional SLAs in place which clearly specify the nature, quantity and quality of support required.

The definition of your support requirements will depend on the type of partner. For example, if you're partnering with an MNO, you will have to contractually agree to provide the level of support defined in their standard SLAs. Many governments also have tough support requirements that your solution will need to meet if you're going to deliver services for them at scale.

Ensure your technical partners can meet SLA requirement

Before you contractually agree to comply with MNO or government SLAs at scale, you need to make sure that your technical partners can deliver this level of support. Many open source software development companies don't have the staff capacity or experience to meet standard MNO SLAs, which can make open source software a risky proposition at scale.

For example, many standard MNO SLAs require nearly 100% service uptime and that you'll restore the service in one hour if it goes down — at any time of day. Talk to your technical partners about how they are going to meet these requirements.

Watch out for penalty clauses

One reason to be careful about signing up to MNO or government SLAs is that if you fail to meet the terms in them, you are likely to have to pay financial penalties, which will be


In practice | Esoko

Digitizing only reputable sources

In Ghana, we established an external network of subject matter experts (SMEs) that are on our payroll but are not staff. An SLA was signed with each SME or their organizations to ensure that their time was dedicated and their responsibilities were clear. If an SME was to leave an organization or was not able to provide the expert advice that we needed, the SLA ensured that our partner organizations were responsible for replacing the SME. SMEs from the Ghana Meteorological Agency and the Ministry of Food and Agriculture were engaged to approve content for a program to deliver agricultural tips to farmers via SMS and to respond to questions raised by farmers. This agreement reduced our risk of being held liable for any damages caused by incorrect information or misuse of information by farmers, since it came directly from the government.

Other examples

Former leaders at Cell-Life — an NGO that offered technology solutions for health management in low- and middle-income countries — stress the need to think about SLAs. They believe this should be done early in the life of a program and not plan organizational activities around contracts that have not yet been signed. Cell-Life ceased operating in part because an SLA the organization needed to continue the provision and management of a cell-phone-based data collection program for community health workers, took 14 months to clear. By the time the SLA was secured, donor funding for the program had ended. Therefore, the SLA had become useless as Cell-Life no longer had financial resources to take on the project.

Vital Wave worked with an international NGO providing health services to the community and to healthcare workers in Nigeria to scale up the geographical reach of a maternal and neonatal health care call center. When the call center equipment was originally installed in 2010, no SLAs were put into place for long-term maintenance and several pieces of equipment were malfunctioning, had reached end-of-life or were no longer supported by their manufacturers.

Vital Wave purchased new equipment and negotiated an SLA with a technical implementing partner. Since Vital Wave initially contracted the new SLA on behalf of the NGO, the support agreement was made transferrable to the NGO at the end of Vital Wave's engagement. Ownership of the call center and its SLA has since been transitioned over the government. This highlights both the importance of putting SLAs in place in the beginning of a project and the flexibility provided by making SLAs transferrable. Read more **here**.

How to

- See an example SLA for members of their external expert network here
- See steps related to drafting an exit provision here
- Read more about risk transfer here



BEYOND SCALE | Legal, Policy and Regulatory Module: Step 6 of 6



© BBC Media Action

defined in penalty clauses in the agreement. These penalties can raise your operating costs or lower your profits if you're a social enterprise. If you repeatedly fail to meet your SLAs, your MNO partner could terminate your relationship based on the termination clause in your contract.

On the other hand, you need to ensure that the SLAs for your technical partners are well defined and that adequate penalties have been specified to cover any failure in meeting MNO or government SLAs that may be caused by these partners. Easy termination clauses need to be made part of such third-party contracts.



Before you contractually agree to comply with MNO or government SLAs at scale, you need to make sure that your technical partners can deliver this level of support.



Service Level Agreements (SLAs)

This example of SLAs provided by Box, a cloud-based file sharing platform that supports over 41 million users as of May 2017, shows how a vendor might offer different initial responses depending on the license or contract.

High
Definition: An issue materially impairs substantial features of the Box Service for many users and no reasonable workaround is available.
Initial response SLA
2 hour SLA (24x7x365)*
4 hour target (9AM - 6PM**)
No target (9AM - 6PM**)

Enhanced Support (Premier/Platinum)

Standard Support (Business)

Free Support (Personal)

1 2 3 4 5 6 7



they have with a client. To support expansion of your digital program, you may need to consider increased levels of service from your vendors.



* English support. Local language, if available in specific region, during Box Weekdays' business hours

** Available weekdays, English only



RESOURCE ROLLUP

Who do you need?

Reviewing and updating legal, policy, and regulatory foundations for the next phase of your program means making sure that your employees understand what they need to watch for in contract negotiations and solution updates. But it's equally important that you have trusted legal advisers who understand your program and have experience with digital programs. Whether you use a law firm or hire in-house counsel, be sure to budget adequately for these activities.

Activity	Resource type
Master agreement negotiation	Legal Counsel, Digital Director and Project Director
User consent and data protection policy development	Legal Counsel, Project Director, Digital Director
Intellectual property agreement negotiation	Legal Counsel, Project Director, Digital Director
Development/revision	Manager, Legal Counsel

Pro tips

- **Don't cut corners on early legal advice.** The cost associated with getting legal advice early in your expansion or transition may be daunting, but having inadequate contract protection can cost much more later on.
- Plan ahead for user consent and data protection changes. Inadequate policies can expose you to legal risk and the possibility of shutdown by governments. Review your policies in these areas when you upgrade your solution design and talk to government partners early. It may be safest to adopt best practices early on, regardless of the current state of legislation in your geographies.
- Pay attention to content IP and liability too. Some digital development leaders report
 that they focused on software-related IP and liability as they grew and didn't devote
 enough attention to content IP and liability, which can take a long time to negotiate.
 If you'll be developing or acquiring a lot of new content in the next phase, talk to your
 lawyers early about what this will entail.



BEYOND SCALE | Legal, Policy and Regulatory Module: Resources

Key step	Referenced resources
1. ASSESS THE IMPACT OF EVOLVING LAWS, POLICIES AND REGULATIONS ON COMPLIANCE	 Case Study: mHealth Compendium Volume Four (Anaya: Shaping Life-Saving Reproductive, Maternal, Newborn and Child Health Practices and Behaviors in India) Case Study: MomConnect: Launching a National Digital Health Program in South Africa Paper: Data Localization: A Challenge to Global Commerce and the Free Flow of Information (Global Spread of Data Localization) Case Study: Kilkari: A maternal and child health service in India – Lessons learned and best practices for deployment at scale Tool: ISO/IEC 27000 Family: Information Security Management Systems Example: Information Regulator (South Africa) Documents Paper: Mobile Privacy Principles Example: Informed Consent Resource Library Paper: International Compilation of Human Research Standards
2. ENSURE A FLEXIBLE CONTRACTING APPROACH TO ACCOMMODATE CHANGE	 Paper: Change Control Process Example: Sample Master Services Contract for IT Services
3. CLARIFY OWNERSHIP OF INTELLECTUAL PROPERTY	 Case Study: mHealth Compendium Volume Four (Anaya: Shaping Life-Saving Reproductive, Maternal, Newborn and Child Health Practices and Behaviors in India) Tool: WIPOLex Example: Work for Hire Agreement Example: Intellectual Property Assignment Agreement Template Example: Intellectual Property Sale Agreement Template



BEYOND SCALE | Legal, Policy and Regulatory Module: Resources

Key step	Referenced resources
4. REVIEW SOFTWARE, HARDWARE AND CONTENT LICENSING TERMS	 Example: Content License Agreement FAQ: Creative Commons Licenses for Global Health Content Article: 3 Tensions with Software Sustainability in ICT4D
5. CLARIFY, LIMIT AND MANAGE LIABILITY	 Tool: Contract Self-assessment Checklist Example: Sample Indemnity/ Insurance Clause Article: Why Your Contract Should Contain an Indemnification Clause Paper: Legal Liability Issues of Mobile Application Relationships in Europe
6. REVIEW AND UPDATE SERVICE LEVEL AGREEMENTS	 Case Study: Expansion and Implementation Support for a Health-Focused Call Center in Nigeria Example: Esoko Expert Network Service Level Agreement Article: Seven Key Questions for Drafting Effective Exit Provisions Article: Risk Transfer: A Strategy to Help Protect Your Business

BEYOND SCALE | Legal, Policy and Regulatory Module: Glossary

Term	Definition
Addenda Source	An addition to a completed written document. Most commonly, this is a proposed change or explanation (such as a list of goods to be included) in a contract or some point that has been subject of negotiation after the contract was originally proposed by one party. Although often they are not, addenda should be signed separately and attached to the original agreement so that there will be no confusion as to what is included or intended. Unsigned addenda could be included fraudulently or confused with rough drafts or unaccepted proposals.
Aggregator Source	An organization that acts as a middleman between application and content providers, and mobile carriers. Provides message traffic throughput to multiple wireless operators or other aggregators; provides mobile initiative campaign oversight, and administration, as well as billing services.
Annexes	A document appended to another document to make it clearer or to give further details.
Assignment and assumption Source	An assignment and assumption agreement transfers one party's rights and obligations under a contract to another party. The party transferring their rights and duties is the assignor; the party receiving them is the assignee. Sometimes, an assignor is not completely relieved of liability even after they assign a contract. Parties must look to a contract's specific language to determine applicable restrictions, terms and conditions for assignments and assumptions.
Creative Commons (CC) Source	One of several public copyright licenses that enable the free distribution of an otherwise copyrighted work. A CC license is used when an author wants to give people the right to share, use and build upon a work that they have created. CC provides a creator flexibility and protects the people who use or redistribute another's work from concerns of copyright infringement as long as they abide by the conditions that are specified in the license by which the creator distributes the work.
End-of-life Source	A term used with respect to a product supplied to customers, indicating that the product is in the end of its useful life (from the vendor's point of view), and a vendor stops marketing, selling, or rework sustaining it.



BEYOND SCALE | Legal, Policy and Regulatory Module: Glossary

Term	Definition
Indemnity, indemnification Source	To guarantee against any loss which another might suffer. Example: Two parties settle a dispute over a contract, and one of them may agree to pay any claims which may arise from the contract, holding the other harmless.
Intellectual property (IP) Source	Any of various products of the intellect that have commercial value, including copyrighted property such as literary or artistic works, and ideational property, such as patents, business methods and industrial processes.
Made for hire Source	Work subject to copyright that is created by an employee as part of his job, or some limited types of works for which all parties agree in writing to the designation. Also known as work for hire and work made for hire.
Service level agreements (SLAs) Source	A contract between a service provider (either internal or external) and the end user that defines the level of service expected from the service provider. SLAs are output-based specifically defining what the customer will receive. SLAs do not define how the service is provided or delivered. The metrics that define levels of service should aim to guarantee a description of the service being provided, reliability, responsiveness, procedure for reporting problems, monitoring and reporting service level, consequences for not meeting service obligations, and escape clauses or constraints.
Statement of work (SOW) Source	A document routinely employed in the field of project management. It defines project-specific activities, deliverables and timelines for a vendor providing services to the client. The SOW typically also includes detailed requirements, pricing, and standard regulatory and governance terms and conditions.
Termination clauses Source	Contract provision allowing it to be terminated under certain circumstances. Also known as terminate provision.
Work for hire Source	See Made for hire.





Digital Impact Alliance

SOLUTION DESIGN

BEYOND SCALE: How to make your digital development program sustainable





SOLUTION DESIGN

MODULE SUMMARY

A technical solution doesn't just involve software — it includes requirements, infrastructure, technical partnerships and the processes by which the solution is developed, updated and maintained. These components are likely to have evolved as you piloted your digital solution, potentially in different locations, and scaled it to a moderate number of users. But if you are now planning to either scale it significantly or supplement it with new digital services and products, you may need to make radical changes to your solution design.

One common evolution is towards simplification and stabilization of core code to enable replication and the ability to handle an increased volume of users. Another common evolution is the creation of new features, products, or services to enable diversification and the ability to reach new kinds of users or provide new services to existing users. Your path to scale and sustainability may require both.

This module draws on interviews conducted with digital leaders of organizations including BBC Media Action, Esoko, Akros, Dimagi, HealthEnabled, Vital Wave, BeeHyv, IMImobile, Echo Mobile and D-tree about their experiences designing solutions for scale.

This module will help non-technical NGOs and organizations that build software think about the unique challenges that digital programs face when scaling technical solutions, highlighting important technical considerations that may impact their sustainability. This



module includes key steps that address common questions asked by technical teams when planning for scale. However, each program is unique, and not all these steps may be relevant to your journey.

It will help you:

- 1 Use a human-centered design approach to reassess your user requirements
- 2 Consider external factors that may change your existing solution design
- 3 Prioritize new features and set targets
- ▶ 4 Plan your technical development for sustainability at scale
- **5** Enhance your development processes if you decide to build your solution
- ▶ 6 Deploy, migrate and maintain your scaled solution



Key steps

USE A HUMAN-CENTERED DESIGN APPROACH TO REASSESS YOUR USER REQUIREMENTS Update your user personas Update your user journeys Consider accessibility and localization

CONSIDER EXTERNAL FACTORS THAT MAY CHANGE YOUR EXISTING SOLUTION DESIGN

- Consider new system integrations
 Consider updating your data model to accommodate scale
 Consider how new regulations, policies or laws might impact your solution design
 - Consider streamlining your reporting requirements

PRIORITIZE NEW FEATURES AND SET TARGETS

- Agree to target features for a minimum viable product
- Work with stakeholders to get buy-in
 When scaling to a new geography, budget additional time and effort for feature prioritization

PLAN YOUR TECHNICAL DEVELOPMENT FOR SUSTAINABILITY AT SCALE

- Evaluate standard systems with professional support
 Use requests for information or proposals for a structured, in-depth comparison of software options
 - Revaluate your hosting strategy
- Assess whether you or your technology partner has the staffing in place to deliver

ENHANCE YOUR DEVELOPMENT PROCESSES IF YOU DECIDE TO BUILD YOUR SOLUTION

- Reinforce your development teamPerform a code and backlog review
 - Revise your development roadmap or release plan
 Build, test, modify and repeat

 - Consider the liability of open source vs. proprietary software and content

DEPLOY, MIGRATE AND MAINTAIN YOUR SCALED SOLUTION Deploy and migrate (if needed) Find the right time and frequency to release updates Plan for ongoing operational costs



STEP 1 DDDDD

USE A HUMAN-CENTERED DESIGN APPROACH TO REASSESS YOUR USER REQUIREMENTS

Update your user personas

The size and complexity of changes required to your digital solution are partly dependent on the differences between your new and existing users. Updating user personas through focus groups with new users in different locations will help you understand whether your solution is relevant to them, and how it needs to change to meet their needs. If viable, build on existing user personas that you have already documented. Updating your user personas before making changes to your solution can save you a lot of rework later.

FOR MORE INFORMATION SEE:

Business Model: STEP 1. UNDERSTAND WHAT THE CHANGING LANDSCAPE MEANS FOR YOUR DIGITAL SOLUTION

Update your user journeys

Mapping new user journeys is an essential analytical step for scaling. One technique for mapping new user journeys involves small group exercises where users representing the same persona work together to document visually how they would use the solution to accomplish a goal. This serves several purposes, including working with new users to validate their needs, helping you understand potential user behaviors and providing an early indication of new features that may be required. User journeys can be mapped from the perspective of potential new users — who describe how they would use a solution and what features it might have — or from the perspective of existing users — who describe how they currently use a solution, which can help identify current issues.

If you are planning to scale an existing solution without making significant changes, then testing the ability of new users to operate the solution can provide valuable early feedback on solution acceptability in the new environment. If new features or services are expected to be developed, paper prototypes of the solution can be similarly useful.



In practice | Esoko

Leading partners to create the best solution for users

The first thing we did when we decided to launch Tulaa in Kenya was make a trip to the field. We got everyone together, including our executives, and wrote down the key questions we needed answered by our potential new users. During our first field visit, we talked to farmers, state agronomy officers and managers from farmer cooperatives. Agronomy officers were especially important because they oversee a lot of farmers' activities and provide insights about the big picture. At the end of each day our team debriefed back at the office and updated our assumptions, user personas and user stories.

We shared our updates with our partners, including the insurance company UAP and microfinance creditor Musoni. We learned from farmers that they wanted a longer period to repay loans, and Musoni agreed to create terms that would work for our new users. We also learned that many farmers didn't have a Kenya Revenue Authority personal identification number (PIN), which is required by insurance companies to obtain policies. UAP worked with us to create a group insurance policy that our users could purchase at a reasonable price.

We brought this news back to the farmers to see what they thought of our new solution. Explaining what our solution offered took over an hour! Insurance policies legally require that individuals purchasing a policy fully understand what they are paying for and what they will get paid in different situations. We worked with both partners to craft a simplified and legally sound explanation of what our solution offered that could be explained in just a few minutes, and we tested and refined it during our next visit to the field. We then brought the refined text back to our partners and worked to create marketing materials that we knew would be well understood by potential new users.

The first thing we did when we decided to launch Tulaa in Kenya was make a trip to the field.



Consider accessibility and localization

Localization requirements for scaling a solution may vary widely depending on the size and diversity of the country. In many countries, you are likely to encounter substantial differences in language or dialect, level of education, digital literacy and even income — particularly between urban and rural areas. Replicating your service in a new location in the same country might thus be as complex as developing new products and services, requiring substantial changes to your underlying solution. For example, if you're planning to replicate a solution in rural areas that you developed for urban audiences with smartphones and 3G access, you may need to move to a 2G audio-based technology, such as interactive voice response (IVR), that's accessible from older model mobile phones.

In addition to supporting different media formats (audio, text, video), technologies (IVR, SMS, USSD, mobile data) and languages and fonts, you may also need to provide users or administrators with a way to select a specific version of the solution, such as ensuring users actively select or confirm their language preference before receiving information via IVR or SMS). These changes can be time consuming and costly to implement all at once, so it's important to identify and prioritize those that are critical to launch and those that can be implemented later.



Other examples

Listen to Benjamin Winters, Regional Director at Akros, talk about the impact of identifying and redesigning their solution for a new category of user.



Dimagi created a process for rapid localization of mobile-based multimedia content to enable standardized health messages to be translated by local health workers into local dialects in rural communities. The use of audio allowed new translations to be recorded quickly and cheaply in every deployment area, enabling the program to be replicated across a wide variety of culturally and linguistically diverse locations.

How to

- Read more about user journey mapping here and here
- Read more about creating user personas here and see some examples here
- See a quick and visual way to map new features here



CONSIDER EXTERNAL FACTORS THAT MAY CHANGE YOUR EXISTING SOLUTION DESIGN

Consider new system integrations

When scaling, pressure increases on a digital program to integrate with new or different electronic systems, especially when transitioning a program over to a government that may have other national systems — unique ID systems, supply chain management systems, health information systems — whose data may be linked or related to your solution's data in some way. In addition, you may need to work with different partners in different locations, including mobile network operators (MNOs), aggregators or other service providers, and integrate with their systems. Governments or other partners may use specific standards for data exchange, and your application programming interface (API) and its documentation may need to be updated. Gathering API documentation from other system providers and creating a visual data-flow diagram that shows information-system dependencies is one initial step many organizations perform in the design phase.

Consider updating your data model to accommodate scale

A program at scale needs to accommodate all of the data elements that might be necessary in the various situations in which the solution may be used. It's worth spending time in the design phase to make sure your current data model has all the necessary data elements and metadata required. If you're scaling a solution for national government, you may need to accommodate different local government structures, hierarchies and reporting needs in different states.

For example, two programs in the same country may use different spellings of location names for the same location, and may even have different district counts, and you may need to integrate with both. Similarly, your solution may need more drop-down fields and validation rules to ensure that data entered is valid.

The more free text fields you have, the more challenging it will be to maintain data quality at scale. At scale, you are also likely to need to store more metadata about how, when and by whom records were created, so you can track user activity or troubleshoot issues.



In practice | BBC Media Action

Consider external factors likely to impact solution design

When we first launched Kilkari, our IVR-based, mobile health education service for new and expecting mothers in Bihar, India, in 2013, it was designed as a cross operator service. Anyone in the state could subscribe to Kilkari by dialing short codes, and pay for the service using their mobile phone credit, thanks to our partnerships with the six largest MNOs in India, and an Indian aggregator.

To minimize MNO network costs, and thus the tariff billed to the end user, we agreed on a decentralized solution design. Local outbound calls to subscribers were made using the IVR infrastructure owned by each MNO in the state. This local infrastructure communicated with our aggregator's centralized IVR platform in another state to access subscriber records, and to record usage habits.

We opened the same subscription short code across all six networks in the state, configuring their billing systems to deduct a minimal subscription fee from each subscriber each week. This decentralized, cross-operator, short-code, end-user billing approach took a huge amount of effort to set up. Configuring and testing short codes, tariffs, and subscription billing across six MNOs' network switching centers in Bihar took a considerable amount of time, and maintaining the system was complex.

When the Government of India decided to adopt and nationally scale Kilkari, we collaboratively revised our solution design. In many ways, we made it simpler:

- Firstly, the government decided to cover call costs and make the service free, which meant we no longer had to integrate with six MNOs' billing systems.
- Secondly, the government asked us to automatically subscribe the millions of women already registered with unique mobile numbers in its Health Management Information System (HMIS).
- Thirdly, the complexity of configuring cross-operator subscription short codes was eliminated, and a much simpler toll-free, long-code (a normal 10-digit mobile number) approach could be implemented.

MNOs already have pre-existing interconnect agreements for routing calls to each other's long codes in India (anyone from any network can call a long code on another network), so the government only had to procure one MNO partner to enable universal access. Finally, the government could negotiate much lower rates for long distance calls because millions of calls were projected.

Consider how new regulations, policies or laws might impact your solution design

Before finalizing your solution design, review whether existing regulatory guidelines or legislation has changed or whether you need to comply with different rules in a new geography. Telecommunications, IT and privacy legislation can have a profound effect on solution design.

For example, new privacy laws may require you to take consent differently, such as integrating with independent third-party systems, which could be expensive and time consuming. Or you may currently work in a country that allows personal data to be hosted on a foreign cloud, such as Amazon data servers in the United States or Singapore, but are planning to scale to a country where legally you must host personal data on local machines. This could mean changing your entire infrastructure strategy.

FOR MORE INFORMATION SEE:

Legal, Policy and Regulatory: all steps

Before finalizing your solution design, review whether existing regulatory guidelines or legislation has changed or if you need to comply with different rules in a new geography.

Consider streamlining your reporting requirements

The organizations interviewed for this guide highlighted reporting requirements as a key consideration often overlooked during time-pressured scale ups. Scaling to new locations usually brings new reporting requirements and a need to aggregate data from multiple databases. Reports may need to be generated from several databases potentially owned and managed by different stakeholders. New partners may also bring reporting requirements to support their business processes: MNOs may require validation of billable call minutes and SMS or data usage every month, or governments may want performance-monitoring reports for local staff delivered in different formats.



Other examples

Watch Peter Benjamin of HealthEnabled speak about the need for a solution to be almost boring to reach scale without drastically increasing tech-support time and forcing developers to work through the night.



How to

- Compare data protection laws around the world here
- Read about some simple ways to improve data security here
- Read more on techniques to select appropriate reporting indicators here

Changes to reporting systems may be minimal when scaling an existing solution in the same geography, but when extending to a new geography, it's critical to review and streamline existing reports and indicators. When you are several years into a digital program, it's normal for dozens of hand-crafted queries to exist, built over the years to satisfy the custom reporting needs of different stakeholders. Conducting an audit of existing reports and validating what is still useful to stakeholders can help declutter your reporting system and improve its performance.

No matter how you scale, your reporting infrastructure will likely need to handle increased user load, and enable more flexibility for report customization. Strategies to address this include hosting reporting servers separate from application or database servers, so performance of the solution itself is not affected by increased report generation, and using third-party business intelligence reporting software instead of hard-coding reports.



PRIORITIZE NEW FEATURES AND SET TARGETS

Agree to target features for a minimum viable product

Having completed the previous steps, you should now be able to determine whether your existing solution needs to be refined or rebuilt from scratch. Implementing organizations have found it helpful to agree a minimum set of target features with developers and stakeholders. These target features must be delivered before a minimum viable product can be launched. Depending on how experienced your team is in managing feature requests and conducting triage overall, as well as the volume of new requests needed, this activity could be done quickly, or take a long time.

Work with stakeholders to get buy-in

Include stakeholders, both old and new, in discussions to ensure that your redesign meets their needs. Hold workshops with stakeholders to validate feature requirements or vote on feature priorities to secure their buy-in. This process requires significant investment in documenting and showcasing the new solution. Your team must be able to clearly demonstrate how the solution addresses key user stories through nontechnical requirements documentation, visual mockups or prototypes. Product owners or managers are responsible for understanding all user persona needs, translating those needs into functional requirements and prioritizing those requirements with development teams. Including your product owners and development team members in the documentation process will speed up showcasing and buy-in.

Product owners or managers are responsible for understanding all user persona needs, translating those needs into functional requirements and prioritizing those requirements with development teams.



In practice | BeeHyv

Watch Sai Rahul from **BeeHyv** talk about the challenges of scaling a solution from a minimum viable product.



How to

- Find interactive techniques for prioritizing features with stakeholders here, here and here
- Read more about feature prioritization strategies here

When scaling to a new geography, budget additional time and effort for feature prioritization

When scaling your solution to new geographies, the feature prioritization process doesn't change but the resulting priority features might. It may take substantially longer to develop features for scale up in a new geography than scaling in the same geography, which typically requires smaller tweaks and verification of design choices. And it will require much more time up front to set the solution context for stakeholders who may be unfamiliar with your program. By the end of this process, you should have a prioritized list of feature requests that programmers can use in the development phase.



STEP 4 DDDDD

PLAN YOUR TECHNICAL DEVELOPMENT FOR SUSTAINABILITY AT SCALE

Evaluate standard systems with professional support

In the pilot phase, you may have built your own digital solution or partnered with a small technology solution provider to build it or used their existing platform. If you're now planning to scale, potentially in partnership with a national government or private-sector partner, it is time to decide whether you're going to enhance your existing solution, rebuild it entirely or use third party software that is already being used at scale. Your decision will be informed by your solution design, the number of users you expect, the frequency and volume of their usage, how much funding or investment you have and your time to launch.

If you're an NGO making a big commitment to a donor or government to deliver sustainable impact at scale, it's worth researching the open source and proprietary software markets to identify whether the software solutions you need already exist. For example, there are numerous content management systems, profile management systems, customer relationship management systems, campaign managers, management information systems, business analysis tools, dashboards, and SMS and IVR systems that are readily available, have already been deployed at scale and could be configured to meet your needs.

Use requests for information or proposals for a structured, in-depth comparison of software options

Once you've come up with a long list of the software products that might work for your solution, consider sending out a request for information (RFI) to the companies that built them, resell them or offer them as fully managed services. You will then have structured information to compare and rank different organizations' software solutions, including your own, against your requirements. Using software, proprietary or open source, that has already been tested at scale might be a less risky option than trying to expand custom-built software which has not yet been used at scale.



In practice | BBC Media Action

How we used RFIs and RFPs to create a world class system

When we first launched our mobile health education services in Bihar, India, in 2012 and 2013, they were powered by an early version of an open-source software solution developed by an NGO in the United States. This back-end system was integrated with a proprietary interactive voice response system (IVRS), owned by an Indian aggregator, and with an open source Management Information System (MIS), configured by our NGO partner.

We procured the IVRS on a fully-managed service basis, i.e. the IVRS was supported and hosted by the aggregator in their data center.

When the Government of India decided in 2014 to scale two of our services nationally, we began working with the Ministry of Health and Family Welfare (MoHFW) and our NGO partner to scale the end-to-end solution to handle calls pan India.

We decided to issue a Request For Information (RFI) for the IVRS, which detailed our requirements including updating our IVR applications, providing a configurable CMS for audio content, logical call handling capability, multi-directional connectivity, APIs to integrate with our open-source backend solution, procurement of hosting infrastructure, and provision of AMCs and L1 and L2 support in the government's data center.

We issued the RFI because our software licensing requirements and hosting approach had changed, and we wanted information on new software solutions that might meet our new requirements and help us refine our solution design, and to see whether any strong competitors to our existing aggregator had emerged in the market.

Our NGO partner also decided to issue an RFI, not to assess whether there were any robust alternatives to its software, but to identify a system integration (SI) in India that could configure, deploy, integrate and test the latest version of the software, as well as support it in the government's data center after launch. There was concern in the stakeholder consortium about going with the latest version of the back-end system, because the software was still being built and hadn't been beta tested yet, but a decision was made to proceed.

After analyzing the results of the RFI, we finalized our solution design and requirements and released an RFP for the IVRS to a shortlist of commercial vendors, asking for quotes. The RFP included our technical and functional requirements, a statement of compliance, our licensing requirements, the Bill of Materials for the infrastructure we needed procured, our support requirements, the SLAs we needed the vendor to agree to and a draft agreement with our legal terms.

Continued on page 139



BEYOND SCALE | Solution Design Module: Step 4 of 6

Once you've established that a short list of organizations and software products meets your requirements, considering sending out a request for proposal (RFP) to the shortlisted organizations to get estimates, quotes and timelines. You may need to send out separate RFPs for different aspects of your solution. For example, you might want to procure an IVR system from one vendor and a profile management system from another. Depending on your approach to hosting and infrastructure, you may need to go through an RFP process to procure infrastructure too.

Revaluate your hosting strategy

Using cloud providers can drastically lower capital costs and increase flexibility for scaling your infrastructure up or down as needed. Cloud hosting also reduces the need for local resources to maintain local servers. The cloud-services industry is advancing at an extremely rapid pace, so even if your system is currently hosted locally on your own hardware, this is a good time to research available cloud services and consider changing your hosting model. Ensure that the privacy and data protection laws in your country allow it, as many countries do not allow personal data to be hosted on a cloud server located outside of the country.

If local hosting is required, new third-party software and hardware needs to be specified and procured by you, or procured by the government if you're transitioning to government. Be sure to research third-party software and hardware suppliers in the same markets where you will deploy your solution. Local distributors may have already imported equipment, cleared customs and paid duties. All third-party hardware and software licenses should come with annual maintenance contracts, which you need to make sure comply with your service level agreement (SLA) requirements.

FOR MORE INFORMATION SEE:

Legal, Policy and Regulatory: STEP 1. ASSESS THE IMPACT OF EVOLVING LAWS, POLICIES AND REGULATION ON COMPLIANCE

Assess whether you or your technology partner has the staffing in place to deliver

As part of the process of comparing your existing solution to other software products, it's worth considering whether you or your technical partner has the staffing and processes in place to deliver at scale. Small organizations or teams involved in building software solutions may outsource development to another organization, which may not be engaging with the product every day. Or they may bring in a few star developers who cover the whole software development life cycle, including everything from new feature requests to testing to writing deployment manuals.

These approaches often struggle to scale, resulting in poorly written code — much of which has been hard coded or no longer reflects the needs of the solution — or overburdened staff who eventually quit. If this is not addressed in your planning process, scaling can result in a buggy solution that alienates users and takes months of expensive work to stabilize.



In practice | BBC Media Action

How we used RFIs and RFPs to create a world

class system (continued from page 137)

In response to our RFP, several vendors demonstrated that they had carrier grade, enterprise level IVR systems that had been deployed by multiple MNOs at scale around the world, but ultimately only one was willing to meet our licensing requirements, and was selected.

The delivery of the IVRS, including integration with the government's MNO connectivity and procurement and deployment of infrastructure, went according to plan. Unfortunately, the scale up of the back-end solution proved complex and much more time consuming than anticipated, partly because the SI contracted by our NGO partner could not master the complex code-base. The services were successfully launched, and the back-end solution has proved a powerful and robust tool — but challenging to configure and support without a dedicated team of senior engineers.

Other examples

Watch Ravi Kiran from IMImobile talk about how a technology partner might assess the infrastructure requirements for a solution. See an example of the sizing sheet he mentions here.



HOW TO

See an example form to evaluate bidders for technical RFPs here

FOR MORE INFORMATION SEE:

Human Capacity: STEP 1. REASSESS YOUR HUMAN RESOURCE STRATEGY



Typical components of an RFP

Module	Content to include in an RFP
Business model and commercial terms	Include a request for a detailed budget or commercial terms for the work, based on effort estimates. Also describe the business model you need. For example, if you're seeking an aggregator, you may want to work with them on a revenue- share basis.
Legal, policy and regulatory	State your licensing terms. For example, you will need a license that allows for the number of users you expect to acquire and retain. And you may need it to be transferrable to the government. Include the SLA that you need the vendor to sign, guaranteeing a certain level of system availability and response times for resolving bugs or other technical issues.
	according to level of severity according to level of severity, and an escalation matrix. Include a draft of the contract that you need the vendor to sign. Sending this out with the RFP and requiring vendors to mark up the draft if they can't comply with any of your legal terms can save you a lot of time later. You may find the perfect piece of software but the legal terms may not be acceptable to your organization.
Solution design	Include a statement of compliance, listing all your feature requirements, where the vendor will indicate whether the feature already exists and is easily configured, is partially built, or needs to be built from scratch (and how much effort this would take).
OR MORE INFORMATION SEE THESE MODULES:	

Business Model

- Legal, Policy and Regulatory
- Partner Relationships

- Human Capacity
- Roll Out



Module	Content to include in an RFP
Roll out	Request a project plan for testing, integrating, configuring and deploying your solution and then fixing problems discovered post-deployment after the system is in regular use. Describe the support that you will require after launch. You may require an annual maintenance contract for the software, which typically costs nine to 11 percent of the value of the software license. Ask what support the vendor will provide for ongoing operations, maintenance and monitoring once the solution has been rolled out. Ask how and with what frequency the vendor will provide regular updates for the solution. Will the vendor push updates or will you need to pull them? Will the vendor update the solution when updates are released for external software dependencies?
Human capacity	Request a staffing matrix, short bios for the key staff that will deliver the work, and an escalation matrix. Vendors should provide you with an account manager (usually not dedicated) to act as your single point of contact. They should also budget for an experienced technical project manager or Scrum Master to manage the work of the engineering team. Other staff may include a business analyst, a technical solution architect, and test and quality assurance (QA) teams. It is best practice for the QA team to be separate from the development team.
Partner relationships	Ask for references for previous clients that the organization has worked with in the past and examples of similar work successfully delivered.

ENHANCE YOUR DEVELOPMENT PROCESSES IF YOU DECIDE TO BUILD YOUR SOLUTION

Reinforce your development team

As previously described, many organizations originally outsource development to another organization or brought in a few star developers. These approaches often struggle to scale. If this staffing policy is not addressed in your planning process, scaling often results in high drop-out rates when customers stop using the existing or new solution because bugs are not fixed fast enough, or the feature set does not meet their needs.

Some organizations suggest bringing on new developers, who are specialists in a single technology. They then lead the development of specific features, or manage functional areas, such application performance tuning. This has proved more effective than tasking existing developers with work on potentially unfamiliar technologies.

FOR MORE INFORMATION SEE:

Human Capacity: STEP 1. REASSESS YOUR HUMAN RESOURCE STRATEGY

Perform a code and backlog review

Replication usually requires improvements in code to remove performance bottlenecks. Diversification requires code changes to implement new features and add flexibility and configurability to systems. The software development team should review the existing code base to identify and recommend technical fixes and improvements to make the code base more reliable, more efficient and easier to manage. Most development teams will already know many of the problems and track them in a backlog of fixes. These fixes should be added to, and prioritized with, the previously identified feature changes and improvements.

In practice | BeeHyv

Watch Ajai Adusumilli from **BeeHyv** talk about the importance of load testing your solution and decentralizing system architecture components to prevent performance bottlenecks.



How to

- Read more about Agile methodologies here
- Learn how to create detailed software development LOE estimates here
- Find popular tools to create, prioritize and track development tasks here, here, here and here

Replication usually requires improvements in code to remove performance bottlenecks. Diversification requires code changes to implement new features and add flexibility and configurability to systems.

Revise your development roadmap or release plan

The software development team should then review the complete set of changes identified, including new features, changes to existing features and fixes to address identified bottlenecks. For each change, the team will estimate the amount of time and effort required to implement it. These level of effort (LOE) estimates can then be used to prioritize and organize features into a development roadmap or release plan.

It is not unusual to be faced with more work than is feasible to perform within the project timeline and budget. It is critical that code changes, which are engineering tasks, be prioritized with LOE estimates taken into account. Sometimes lower priority but quicker or easier features will be prioritized. And it is almost always the case that features will be dropped from the list to bring the overall estimated effort in line with project timelines and budget.

With a reprioritized and estimated set of code changes in hand, the development team can create a release plan — a schedule of when changes are expected to be completed and when these changes, in the form of a release, can be deployed for testing, staging and production use. Once completed, the release schedule or roadmap is a powerful tool for communicating system capability and timelines to stakeholders.

Build, test, modify and repeat

When the planning is done, the engineering team will begin implementing the changes. It is critical that the non-technical program team remains involved in this phase. Best practice is to use one of the Agile project management methodologies. There are various codified Agile methodologies, but all of them share the same core philosophy: build, test and modify in short cycles.

A key strategy for both types of scale is to build rapid software prototyping and usability testing into the software development life cycle. It is more important when replicating to make incremental changes and test them thoroughly before releasing them. When diversifying, it is important to be able to quickly test several very different versions of the solution to determine which will have the highest acceptance.

Technical infrastructure must be set up to support this process, specifically testing and staging environments where pre-release systems can run without impacting the production environment. Staff must plan for and commit significant time to reviewing test systems and providing feedback to developers, which the developers subsequently incorporate in the next development effort.



It is not unusual to be faced with more work than is feasible to perform within the project timeline and budget. It is critical that code changes, which are engineering tasks, be prioritized with LOE estimates taken into account.



STEP 6 DDDDD

DEPLOY, MIGRATE AND MAINTAIN YOUR SCALED SOLUTION

Deploy and migrate (if needed)

Migration of data from an old to a new version of a system is a significant challenge that is often underestimated. Changes to a solution often include changes to its underlying stored data, which might require thousands or millions of previous records to be updated to fit into the new database structure. This may require significant data cleansing. System downtime may also be required to switch over from one hosted infrastructure to another.

Whether to migrate is a decision that can only be made by comparing the total cost of old and new infrastructure. Developing a migration plan that identifies when specific locations will switch over to the new system is key. Optimally, switchover is timed during periods of low usage. The migration plan should also include a communication plan to notify stakeholders of downtime, a testing plan to validate that the new system is up and functional before making it live, and a fallback plan in event of failure. A data migration plan that specifies which data should be moved from the old system to the new, and which data should be left behind when records are migrated is also key.

FOR MORE INFORMATION SEE:

Business Model: STEP 2. ESTIMATE THE TOTAL COST OF OWNING YOUR DIGITAL SOLUTION

Find the right time and frequency to release updates

Keeping your solution current with the latest updates and security patches is critical. Incidents of widespread hacking, malware and ransomware attacks have increased public attention on the consequences of failing to keep solutions secure. Many organizations do not plan for this and neglect to patch the software platforms used in their solution until they run into a problem. Encouraging your developers to stay current with security updates and allocating time for routine software patching and maintenance will help you get ahead of potential issues. If your


Other examples

One of the biggest challenges encountered by Echo Mobile's program which uses sensors to track *matatu* (shared taxi) driving behavior in Kenya to improve productivity and safety, has been the operational costs of growing user support needs. Although users were submitting daily feedback via toll-free SMS, the Echo Mobile team often needed to make follow-up calls or in-person visits to users if the feedback submitted was unclear or inaccurate. The previously allocated budget for user support did not adequately cover the time and costs required by the team to make these important calls and visits. This meant that Echo Mobile had to reallocate budget from a different part of the program to cover the overrun in user support costs. Read more about the program here.

D-tree has many programs that distribute phones and monthly data or airtime bundles to community health workers (CHWs). They also face challenges with CHWs losing or breaking their phones and insufficient funding to replace them. They learned that CHWs who received a flat monthly stipend, regardless of how they use the digital tool, were not incentivized to keep their phones safe or use their mobile data only for work purposes. To address this, they withheld a small percentage of CHW stipends (approximately USD \$1.50 per CHW in each group) and added it to a funding pool used to replace lost phones. At the end of each year, any remaining money in the pool was split evenly among the group, providing a positive incentive for CHWs to keep their phones safe.

How to

- Read more about data cleaning here
- Read more about the optimal frequency for updating mobile apps here
- Learn how to calculate the costs of migrating to the cloud here
- Read more about strategies to migrate to the cloud here and here



solution is hosted by an external provider, they may be responsible for patching servers and software dependencies. Ensure that this is fully described in your SLAs.

In addition to patching the core software that your solution depends on, you will also need to apply or send out patches for your own solution. If your solution is entirely web-based or call-in based, you may only need to apply patches to software on your central servers. If your solution has a mobile client or app, you will need to push updates to your users' mobile devices or allow them to download the updates on their own. Distributing updates to existing users may cause them to incur charges for downloads. You may need to build this consideration into your release schedule and ensure updates are not made too frequently. Ensuring that support staff are trained in new features, and expecting an increased workload after substantial updates, will help make roll outs of software updates more manageable.

FOR MORE INFORMATION SEE:

Legal, Policy and Regulatory: STEP 6. REVIEW AND UPDATE SERVICE LEVEL AGREEMENTS (SLAS)

Plan for ongoing operational costs

Operational costs are often overlooked in solution design. The costs of supporting users and maintaining a solution at scale can be significantly higher than the cost of developing an innovative solution. Many organizations do not fully understand operational costs until they start dealing with technical issues, at which point the costs may be severe. If users do not receive immediate support when they encounter issues, they may not trust nor want to use the solution again. Once trust is lost, it may be impossible to get back, making it even more critical that support structures are financially planned for and put in place before the solution is rolled out.

FOR MORE INFORMATION SEE:

- Business Model: STEP 2. ESTIMATE THE TOTAL COST OF OWNING YOUR DIGITAL SOLUTION
- Roll Out: STEP 5. DEVELOP SUSTAINABLE, COST-EFFECTIVE DISTRIBUTION CHANNELS AT SCALE

1 2 3 4 5 6 (

The costs of supporting users and maintaining a solution at scale can be significantly higher than the cost of developing an innovative solution.



RESOURCE ROLLUP

Who do you need?

Expanding your digital development program requires bringing in new skills and augmenting your current teams. The table below indicates the types of human resources you will need to complete the steps in this module. Your partners' support with technology design, development, deployment, hosting and maintenance will be integral to sustaining your program at scale.

Activity	Resource type
Analyze, design and prioritize features	Business Analyst, User Interface/User Experience Designer
Development and maintenance	Technical Lead, Software Developers
Manage technical partners and deployment	Project Manager / SCRUM Manager
Data migration	Database Administrator

Pro tips

- **Choose proven technologies.** No matter how skilled your software development team, adopting and customizing an existing technology platform that has been proven to work at scale can save you time, effort and money in the long run.
- Focus on support over features. Maintaining and operating a software system is a complex effort. When selecting software components, focusing on the availability and cost of ongoing support to address problems and extend the system's capabilities will make your project more resilient to both technical issues and changing needs.
- **Be modular.** The more you rely on self-contained software modules and services, the easier it will be to troubleshoot issues, replace old or malfunctioning modules with improved ones, and survive when key developers leave. Avoid monolithic software architecture.
- **Choose flexible hosting.** While international cloud hosting is not a legally viable option in every country today, its infrastructure-as-a-service model offers immense benefits to programs that need flexibility to scale up and down as needed. Many governments are building in-country cloud hosting services to reap these rewards. Designing a solution that can switch to cloud hosting is designing for the future.



BEYOND SCALE | Solution Design Module: Resources

Key step	Referenced Resources
1. USE A HUMAN-CENTERED DESIGN APPROACH TO REASSESS YOUR USER REQUIREMENTS	 Guide: User Journeys – The Beginner's Guide Article: When and How to Create Customer Journey Maps Guide: The 5 Best Guides for Creating Customer Personas Example: User Personas Guide: The Field Guide to Human-Centered Design
2. CONSIDER EXTERNAL FACTORS THAT MAY CHANGE YOUR EXISTING SOLUTION DESIGN	 Tool: Compare Data Protection Laws around the World Article: 5 Simple Ways to Improve Your Data Security Today Guide: Monitoring and Evaluating Digital Health Interventions (Part 2c: Setting the Stage: Selecting Indicators for Digital Health Interventions)
3. PRIORITIZE NEW FEATURES AND SET TARGETS	 Tool: Innovation Games: Buy a Feature Tool: Innovation Games: 20/20 Vision Toolkit: 6 Backlog Prioritization Techniques Article: Agile Best Practice: Prioritized Requirements
4. PLAN YOUR TECHNICAL DEVELOPMENT FOR SUSTAINABILITY AT SCALE	 Example: Inbound IVR Sizing Example: Statement of Compliance Example: RFP Evaluation Form
5. ENHANCE YOUR DEVELOPMENT PROCESSES IF YOU DECIDE TO BUILD YOUR SOLUTION	 Article: Agile Software Development Tool: A Simple Project Effort Estimation Utility Tool: PivotalTracker Tool: GitLab Tool: Asana Tool: Visual Studio Team Services



BEYOND SCALE | Solution Design Module: Resources

Key step	Referenced Resources
6. DEPLOY, MIGRATE AND MAINTAIN YOUR SCALED SOLUTION	 Article: Data Cleaning, Management, and Tagging: The Best Practices Article: How Often Should You Update Your App? Article: How to Calculate the True Cost of Migrating to the Cloud Article: 6 Strategies for Migrating Applications to the Cloud Guide: Enterprise Cloud Strategy (Moving IT to the Cloud)



Term	Definition
Agile methodology	An approach to project management utilized in software development. It uses incremental, iterative work sequences, commonly known as sprints.
Aggregator Source	An organization that acts as a middleman between application and content providers, and mobile carriers. Provides message traffic throughput to multiple wireless operators or other aggregators; provides mobile initiative campaign oversight, and administration, as well as billing services.
Annual maintenance contract Source	A written document that sets forth the terms of an agreement between a client and a maintenance service provider. The overall purpose for a maintenance contract is to have consistent fees and regular availability of the service provider at a savings over random or emergency calls.
Application programming interface (API) Source	A set of protocols, routines, functions or commands that programmers use to develop software or facilitate interaction between distinct systems.
Business intelligence (BI) Source	Any information that pertains to the history, current status or future projections of an organization. Bl software enables users to obtain enterprise-wide information more easily, letting users slice and dice the information from their organization's numerous databases without having to wait for their IT departments to develop complex queries.
Carrier grade Source	A system or a hardware or software component that is extremely reliable, well tested and proven in its capabilities.
Cross-operator	A service that is made available by multiple mobile network operators (MNO), typically in an identical fashion. For example, dialing the number "911" will call emergency responders in many countries in the world, regardless of the MNO being used to make the call.
Data-flow diagram Source	A graphical representation of the "flow" of data through an information system, modelling its process aspects.



Term	Definition
Drop-down fields Source	A data field that allows the user to choose one value from a list.
Health management information system (HMIS) Source	An information system specially designed to assist in the management and planning of health programs, as opposed to delivery of care.
Interactive voice response (IVR) Source	An automated telephony system that interacts with callers by gathering information and routing calls to the appropriate recipient.
Interconnect agreement Source	A business contract between telecommunication organizations for interconnecting their networks and exchanging telecommunication traffic.
Level 1 support Source	Basic help desk resolution with lower-level technical personnel trained to support simple customer issues, such as solving usage issues and fulfilling service desk requests that need IT involvement. Also called Tier 1 support.
Level 2 support Source	In-depth technical support from experienced and knowledgeable technicians, but not necessarily engineers or programmers, for problems that cannot be handed by Level 1 support. Also called Tier 2 support.
Level of effort (LOE) Source	The most realistic amount of effort (expressed in terms of person-hours or money) required to develop or maintain software based on incomplete, uncertain and noisy input.
Long code Source	A normal 10-digit mobile number used for two-way communication.
Metadata Source	Data that describes other data. For example, data dictionaries and repositories provide information about the data elements in a database.



Term	Definition
Minimum viable product Source	The most pared down version of a product that can still be released.
Product owners Source	The product owner represents the product's stakeholders and the voice of the customer; and is accountable for ensuring that the team delivers value to the business. The product owner defines the product in customer- centric terms (typically user stories), adds them to the product backlog, and prioritizes them based on importance and dependencies.
Queries Source	Searches performed on a database. In addition to obtaining lists of records that match the search criteria, queries to a database allow for counting items and summing amounts.
Request for information (RFI)	A process that uses a standardized format for collecting information from possible vendors or suppliers
Request for proposal (RFP) or Request for quote (RFQ)	A document used to solicit detailed proposals or bids from vendors or suppliers
Service level agreements Source	A contract between a service provider (either internal or external) and an end user that defines the level of service expected from the service provider. SLAs are output-based specifically defining what the customer will receive. SLAs do not define how the service is provided or delivered. The metrics that define levels of service should aim to guarantee: a description of the service being provided, reliability, responsiveness, procedure for reporting problems, monitoring and reporting service level, consequences for not meeting service obligations, and escape clauses or constraints.



Term	Definition
Short code Source	A numeric code assigned to a commercial organization for SMS text messaging. Users send a message to a short code to receive a prepared (not interactive) response.
Software development life cycle Source	A framework defining tasks performed at each step in the software development process consisting of a detailed plan which describes how to develop, maintain and replace software. The life cycle defines a methodology for improving the quality of software and the overall development process.
Unstructured Supplementary Service Data (USSD) Source	Sometimes referred to as quick codes or feature codes, USSD is a protocol used by cellular telephones to communicate with the service provider's computers. Unlike SMS text messages, USSD messages create a real-time connection which remains open, allowing for a two-way exchange of a data. This makes USSD more responsive than services that use SMS.
Visual mockups	Rules built into a software's user interface that validate if data entered into a data field is acceptable and prevent erroneous data from being entered.
Visual mockups	A visual representation of how a digital solution's user interface will look once it has been developed. Mockups can be simple sketches on paper or more detailed visualizations created using visual design software.

BEYOND SCALE | Solution Design Module



Digital Impact Alliance

ROLL OUT

BEYOND SCALE: How to make your digital development program sustainable





ROLL OUT

MODULE SUMMARY

When it comes to expanding your digital development program to a new geography or transitioning it to a new owner, success will be determined by how your teams and partners implement your strategy, including rolling out your program to end users. Robust project management, constant attention to detail and the ability to adjust quickly as both challenges and opportunities arise are all keys to success. Many digital development programs don't make it to scale because they lack the planning and processes needed to support a substantially larger user base and decentralized operations. Sustainable scale requires the institutionalization of robust project management processes to ensure effective support, distribution, marketing and sales, training, reporting and monitoring and supervision.

The term "roll out" is a broad one that involves almost every aspect of your program's operation and management. There are several components that are especially important to a digital program's ability to succeed in the next phase of its journey, including:

- clearly defined project management structures and processes to coordinate the activities of staff and partners, and to deliver within budget and on time;
- partnerships with public or private sector organizations to reach new or larger user populations through marketing, distribution and in some cases, sales;
- · systems for tracking program and financial performance against your new goals, and
- new channels to distribute your solution to end users.



BEYOND SCALE | Roll Out Module

This module is relevant to nearly all readers because of the number of functional areas it touches. It draws on interviews conducted with digital development leaders of organizations such as BBC Media Action, Esoko, Vital Wave, Akros, Dimagi, PATH, BeeHyv, Digital Green, D-tree and Xavier Project. It documents guidance intended to help you think about how the structures and processes that support the implementation of your digital program might need to change at key transition points to achieve scale and sustainability.

Note that some steps, including those related to monitoring and supervision, may only be applicable to programs where a digital solution is being used by a work force to perform a job. Other steps, including those related to marketing and distribution, may only be applicable to digital solutions may only be applicable to digital solutions that target a subset of the general public.

This module will help you to:

- 1 Build project management foundations for scale
- 2 Plan for sustainable technical support at scale
- 3 Adapt training, monitoring and supervision programs for scale and sustainability
- 4 Optimize and expand your marketing to acquire new users at scale
- **5** Develop sustainable, cost-effective distribution channels at scale



Key steps

BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE

- Create a shared project management structure to manage work by multiple stakeholders
- Align your project management approach with partners' work cultures
- Commit to shared project plans, meetings and minutes

PLAN FOR SUSTAINABLE TECHNICAL SUPPORT AT SCALE

- Evaluate whether your existing technical support can be scaled and transitioned
 Plan for different levels of technical support to optimize efficiency and costs
 Plan for growing customer support needs

ADAPT TRAINING, MONITORING AND SUPERVISION **PROGRAMS FOR SCALE AND SUSTAINABILITY**

- Evaluate training approaches that reduce costs and enable scale and sustainability while still maintaining quality
 Expand your monitoring and supervision structures
 Facilitate data-driven management

OPTIMIZE AND EXPAND YOUR MARKETING TO ACQUIRE NEW USERS AT SCALE

- · Build a mass-market brand with above-the-line advertising
- Acquire specific target groups with below-the-line advertising
 - · Negotiate marketing partnerships with mobile network operators or aggregators to reach mobile subscribers at scale
 - Explore marketing partnerships with organizations that already have active and sustainable marketing and distribution channels

DEVELOP SUSTAINABLE, COST-EFFECTIVE DISTRIBUTION CHANNELS AT SCALE

- Understand how users access digital services to improve distribution
- Assess changes in users' digital access and literacy
- Assess private sector distribution costs
- Consider public sector distribution risks



STEP 1 DDDD

BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE

Create a shared project management structure to manage work by multiple stakeholders

Scaling a digital intervention or transitioning it to government usually involves managing multiple workstreams across a wide range of stakeholders to meet a common goal. Defining and agreeing on a shared project management structure — collectively tracking, documenting and reporting on progress against deadlines — is critical. Equally important is developing processes that stakeholders can follow in order to complete their tasks. The more detailed a project management structure is and the more guidance it provides, the less likely it is that one party will fail to complete their tasks. Although each partner organization will have its own project or relationship manager, it should be clear which organization or team is responsible for each task, has the authority to coordinate work and ensures different components are delivered on time.

One stakeholder missing a deadline can have an expensive, indirect effect on all the others. Sometimes, hiring an objective third party for overarching project management makes sense. Consider allocating budget for professional project management staff, either hired internally or through a third party, when planning for scale. These individuals are not cheap to employ in the short term, but they deliver longer term value, mitigate risks and are essential to delivering complex projects on time and on budget. Implementers report success with a model where a donor or government department contracts and funds a management consultancy to coordinate work between a consortium of partners and government staff.

FOR MORE INFORMATION SEE:

Partner Relationships: STEP 3. UPDATE AGREEMENTS AND REVISE GOVERNANCE STRUCTURES

Human Capacity: Skills you may need in the next phase



In practice | BeeHyv

Watch Sai Rahul from **BeeHyv** explain the importance of agreeing with partners on the time, effort and budget dedicated to ensuring adequate communication and documentation for project management.



Other examples

To realize the Government of Ethiopia's Information Revolution, its national vision for digital health, Vital Wave was funded by a donor to act as an objective third party to manage the roll out of two foundational health information systems. Vital Wave put out request for proposals (RFPs), selected several technology vendors, coordinated the work of vendors developing customized software platforms and supported the government departments that were responsible for rolling out and maintaining the platforms across the health system. This temporary project management structure ensured that vendor selection, platform development and roll out were fast and efficient, particularly since government staff turnover at high rates.

How to

- Read about implementation planning and project management for digital development projects here
- Learn about the pros and cons of Agile, Waterfall and related methodologies used in software development here
- See the features and benefits of Basecamp and other popular online tools for project management and collaboration here



Align your project management approach with partners' work cultures

If you've been working on a pilot or are in start-up mode, you may not have used a formal project management methodology. But when the stakes are higher and multiple partners are involved, a well-defined approach to project management — agreed to by all stakeholders — becomes critical. Otherwise, there may be a clash of working cultures which can delay planning and contracting.

For example, governments and mobile network operators (MNOs) often prefer a linear waterfall approach to project management, where timelines, milestones and outputs are clearly defined before the project starts. Software development agencies usually prefer Agile methodologies that give them the flexibility to iteratively adapt their products based on continuous user feedback. But government partners may prefer to specify detailed requirements in contracts from the outset, link payments to fixed deadlines and penalize agencies for late delivery. Software development agencies may not be comfortable working this way because they prefer the flexibility to develop requirements and code iteratively. One compromise could be to integrate Agile sprints into an overall waterfall project plan.

Commit to shared project plans, meetings and minutes

A shared project plan, which reconciles different project management approaches and covers the work of all relevant stakeholders, greatly increases your team's chances of delivering on time and on budget. Otherwise, managing dependencies between partners can be very challenging. When work by one stakeholder must be completed before work by another can start, a shared project plan helps create visibility for all on progress and potential delays.

Many organizations have found it highly effective to develop shared project plans face-toface. Discussing tasks and planning their dependencies is much easier done in person by the people who will deliver the work. Ensuring tasks are lined up in the right order with reasonable time estimates before entering them into a formal project plan is valuable, proactive planning. Expensive long-distance flights can be worth the investment. Once all stakeholders have shared expectations, and the project plan has been collectively developed and agreed, the project manager for the program can update it based on inputs from stakeholders.

Communication mechanisms are also key. Successful, large-scale projects usually involve structured, regular communication in the form of weekly or even daily project management calls. These calls are only as good as the notes you have from them. Recording accurate minutes of these calls and making sure the minutes are systematically reviewed and approved by call participants is critical. These minutes become your official record of decisions that have been reached.



A shared project plan which reconciles different project management approaches and covers the work of all relevant stakeholders greatly increases your team's chances of delivering on time and on budget.



PLAN FOR SUSTAINABLE TECHNICAL SUPPORT AT SCALE

Evaluate whether your existing technical support can be scaled and transitioned

You will likely need to sign up to tough service level agreements (SLAs) if you want to scale with MNOs, governments or commercial partners. You will also need to evaluate whether you have the right technical partners on board to deliver 24/7 or 16/5 support for lightning-fast fixes of critical issues.

One of the challenges of developing a digital solution using open source software is that often the people who built it are the only ones with the skills required to support it. This can make scaling support and transitioning to government challenging. Small technology providers might argue that they can transition knowledge about their software to a large third-party technical support company in-country, but this is easier said than done when the software has thousands of lines of custom-built code and little supporting documentation.

Thoroughly test Level 3 engineer capability before deciding on a technical support partner; ensure documentation of your system is rigorous and up to date (including architectural diagrams, process flow diagrams, data definitions, and API documentation) and plan for a sufficient number of face-to-face knowledge transfer sessions, as well as ongoing Level 3 support for as long as needed.

FOR MORE INFORMATION SEE:

Legal, Regulatory and Policy: STEP 6. REVIEW AND REVISE SERVICE LEVEL AGREEMENTS (SLAS)

Partner Relationships: STEP 3. UPDATE AGREEMENTS AND REVISE GOVERNANCE STRUCTURES

In practice | BBC Media Action

The complexity and cost of supporting 'boutique' open source software applications at scale

Technical support was one of the biggest challenges we faced when launching national versions of our IVR-based mHealth education services for the Government of India.

Our services have two key technical components: a proprietary IVR system provided by a mobile technology solution provider in India, and an open source back-end system (rules engine and profile manager) developed by an NGO in the United States.

When the government asked us to scale two of our services nationally, our NGO partner's strategy was to procure a technology company in India to use their open source application development framework to build scaled versions of the services, and integrate them with an open source management information system (MIS). Through this development process, our NGO partner hoped the technology company would learn how to provide L1 and L2 support from launch, rapidly taking responsibility for L3 support thereafter.

Unfortunately, our NGO partner soon realized that the technology company that had been selected by a panel of stakeholders, including BBC Media Action, could not get to grips with their complex open source code-base. As a result, our NGO partner had to take responsibility for much of the development work themselves.

Although our private sector IVR provider was comfortable signing up to the demanding service level agreements (SLAs) required by government, our NGO partner was understandably concerned about how it would honor them from the United States.

After launch, we had significant technical issues with the integration between the backend system and management information system (MIS). Our NGO partner had to spend more time than anticipated on L3 support, and SLA commitments were not met due to lack of staff capacity and the significant time zone difference.

Finally, our NGO partner had to hire a replacement technology company in India, which already had experience of using its open source software to build technology solutions. This technology company was not initially selected because it is a small start-up, and had no experience of scaled support. Thankfully, despite its small size, it has demonstrated considerable engineering expertise, managing to not just support but further develop the back-end solution and MIS.

Continued on page 165



Plan for different levels of technical support to optimize efficiency and costs

MNOs and technology service providers usually have different levels of technical support staff to optimize efficiency and costs. Level 1 engineers typically have three years of experience and can carry out routine system monitoring and administrative tasks, logging any issues they find using bug tracking software. Level 2 engineers, who try to resolve these issues, usually have five years of experience. Level 3 engineers usually have eight to ten years of experience and can address complicated issues in the code.

Level 1 and Level 2 staff are often expected to work shifts to provide 24/7 or 16/5 support. If you're delivering a service for government, they may expect your Level 1 and Level 2 staff to sit locally in their data center. Level 3 engineers usually log in to a system remotely to fix issues and need security clearances and sufficient internet speed and bandwidth to connect to the servers through a virtual private network (VPN).

L3 support is rarely calculated on the basis of individual roles, because it would be very expensive to have all the necessary experts sitting on a bench available for support calls. Many commercial software vendors provide annual maintenance contracts for Level 3 support and commit to fixing or replacing software or hardware for an annual fee, usually calculated as a percentage of the license fee.

FOR MORE INFORMATION SEE:

Human Capacity: STEP 5. EXPRESS, MODEL AND REINFORCE DESIRED BEHAVIORS

Plan for growing customer support needs

In addition to arranging technical support for your hardware, software, data center and connectivity needs, you'll also need to develop a plan for supporting rapid growth in the number of end users for your digital solution. At a smaller scale, your project staff may have been able to directly support customers, in some cases through face-to-face interaction. However, as you scale up, this approach is likely to become both prohibitively expensive and operationally unrealistic.

Strategies for scaling support to an increasing number of customers include creating a call center or using existing customer support centers — for example, those run by partner MNOs or government entities. Financing a call center may require finding new revenue sources, such as third-party advertising, to cover the associated costs.

FOR MORE INFORMATION SEE:

Business Model: Common digital development revenue models

Solution Design: STEP 4. PLAN YOUR TECHNICAL DEVELOPMENT FOR SUSTAINABILITY AT SCALE



In practice | BBC Media Action

The complexity and cost of supporting 'boutique' open source software applications at scale

(continued from page 163)

However, we remain conscious that finding technology companies capable of supporting other organization's open source code is challenging, and a risk to consider when transitioning services to government. Our learning is that unless an open source software solution has a significant development community in the country where you're operating, it may prove challenging to find effective in-country support. Purchasing proprietary software licenses with standardized Annual Maintenance Contracts may be less expensive in the long run than free open source software, when not just capital investment, but also operating costs, are taken into consideration.

Other examples

Listen to Benjamin Winters, Regional Director at **Akros**, talk about how they planned the transition of user support for their digital solution to the Government of Zambia.



When **Dimagi** was supporting the Government of India in deploying a national nutrition program using its CommCare mobile phone platform, Dimagi encouraged the implementation of technology support system with a government support staff member at each block, district and state, for all states included in the rollout. Issues escalated by end users to staff in the block can be escalated to the district and then the state depending on their complexity. Escalation of issues is done through a CommCare application built for technology support. For the most difficult issues, eight Level 3 staff provide support at a government data center. Dimagi's Level 3 software developers support the government data center remotely. For Dimagi, the ideal Level 1 staff-to-user ratio is between 1:20 and 1:250.

How to

- Learn more about Level 1, Level 2 and Level 3 IT support here
- Read more about delivering large-scale projects on time, on budget and on value here



ADAPT TRAINING, MONITORING AND SUPERVISION PROGRAMS FOR SCALE AND SUSTAINABILITY

Evaluate training approaches that reduce costs and enable scale and sustainability while still maintaining quality

If you have a business to business (B2B) or business to government (B2G) digital solution, being able to cost-effectively train corporate or government staff could be critical to its success. At a smaller scale, you might have had a resource-intensive approach to training. Your own staff might have conducted training, with a high ratio of trainers to users. Now that you are faced with rolling out your solution at a larger scale, you will probably need to reassess your approach, especially if the training will be delivered by government partners.

Many organizations use a training-of-trainers (TOT) approach where NGO staff train government master trainers, who train local government staff, who then train end users. Supporting the government in developing micro-level training plans, following up on the execution of these plans, and monitoring the quality of training through spot checks have all proved necessary in transitions of program ownership.

Identifying the right trainers is also a success factor. Consider testing different training approaches before scaling up your training program. For example, do community health workers (CHWs) perform better after being trained by their direct supervisors, a district-level health officer or a community leader? Does an all-day training session work better than two half-day sessions? Exploring different training approaches in different locations can help you identify the most effective model. Once you've decided on a training approach, develop customized training manuals and tools to meet trainer needs. Implementers report that it is difficult to achieve the same training results at scale if the intensity of training is significantly reduced, and suggest managing stakeholder expectations about what can realistically be achieved.

FOR MORE INFORMATION SEE:

Human Capacity: STEP 4. SHARE KNOWLEDGE TO BUILD SKILLS



In practice | BBC Media Action

Training isn't enough; the importance of ongoing monitoring and supervision

When we began transitioning Mobile Kunji, our IVR and print-based job aid for community health workers (CHWs) to state government in Bihar, India, we decided that training government trainers to train CHWs would be the most cost-effective model.

We started building the capacity of government trainers early, and let them eventually take over. This required a phased approach with multiple trainings conducted to allow for knowledge transfer and change management, with training outcomes presented at government review meetings. Despite this approach, we noticed a drop in the quality of training, and Mobile Kunji usage.

We realized that CHWs' supervisors were not strongly encouraging them to use Mobile Kunji, because the supervisors themselves had not been trained to use the job aid and did not fully understand the value it offered. Following this realization, we changed our strategy to include supervisors in the trainings, alongside CHWs, to make sure they did not feel left out, understood the program and could advocate for its use.

The result was that Mobile Kunji usage was higher in districts where CHWs had been trained by government trainers and then managed by trained supervisors than in the districts where we had trained CHWs directly.

Other examples

Watch Dr. Chilunga Puta from PATH talk about the importance of monitoring and supervision when scaling digital solutions for government field staff and how to make it happen.



As Digital Green grew, one of their biggest challenges was ensuring the quality of their service. To tackle this, they created checklists and processes for cross-validating the data that came in from the field and ensuring the integrity of its approach. Using a quality assurance model they developed to manage and track key metrics — such as whether farmers were adopting suggested practices on their farms after watching a video — Digital Green created a uniform data verification methodology. This required training agricultural extension workers on the new methodology and institutionalizing it as a part of the public and private extension systems that it partners with, so that they could carry it forward as a part of their day-to-day operations in the field.



Expand your monitoring and supervision structures

You will need someone to monitor the work performance of the people you've trained, and to supervise their ongoing work. At the pilot stage, your staff may have been supervising a limited number of trained users. But if you're planning to scale and need to achieve sustainability, you may need to adapt your approach.

Implementers that have successfully scaled and transitioned digital tools and services to government have found it critical to engage users' supervisors in training, even if supervisors do not use the solution. For example, if CHWs are being trained to use a mobile app, then the nurses who supervise them should also be trained, even if they will never use the app.

Successful implementers develop training programs specifically for supervisors, integrate monitoring and supervision of digital solutions into the agendas of staff meetings, and make regular visits to provide support to supervisors and participate in their staff meetings. Supervisors who understand how a digital solution works and how staff are supposed to use it, are better able to ensure its effective use.

Facilitate data-driven management

Supervisors need performance information to effectively monitor their staff or any end users of a digital solution. Regardless of whether supervisors are government officials or commercial retailers, they need to know how their staff or outlets are using your digital solution. This performance information needs to be timely, which means they need to have regular access to frequently updated data. At scale, this can be hugely challenging as there could be thousands of supervisors working in the field. You will need a robust management information system (MIS), which provides easy access to digestible, actionable data — down to the field level — in order to train and persuade the relevant people to use the system.

Implementers that have successfully developed and rolled out MIS to support data-driven management in the field recommend developing templates for actionable reports in close consultation with supervisors. They know best how much — or how little — information they need to effectively monitor the performance of their staff (the end users of the digital solution).

It's also important to identify how supervisors will access performance reports, as their time, equipment, skill, electricity and internet access can be limited. In addition to the standard online or downloadable reports, some implementers have found it effective to build a system that automatically generates regular reports and emails them to government staff rather than expecting supervisors to access the data online.

FOR MORE INFORMATION SEE:

Human Capacity: STEP 5. EXPRESS, MODEL AND REINFORCE DESIRED BEHAVIORS



Other examples

Zambian health technology provider Akros changed their approach to monitoring and supervision when they decided to scale. To scale, they knew they would have to decentralize field-based supervision activities. They assigned supervisory roles to "community champions" who became responsible for managing roll out activities in the districts. This process required intensive training and support through field visits by central Akros staff over a period of nine months, but eventually these field visits were reduced and support to community champions was provided remotely. This example highlights how an up-front investment in training field-based staff can pay off in the long-term.

D-tree has developed tools designed specifically for supervisors, which provide them with guidance and troubleshooting support to address user issues identified when they conduct one-on-one supervision visits. These tools not only support supervisors to be more effective mentors, but the data generated from these interactions is made available on program dashboards to provide an additional layer of accountability for supervisors themselves. D-tree has found that giving supervisors access to data is only effective if there is a way to monitor and hold supervisors accountable for acting on that data.

How to

- See sample training of trainer (TOT) packages here and here
- View a training observation checklist template to improve training quality here
- Read more about data-driven management here and about some of the common pitfalls organizations face when trying to implement it here
- Find some useful resources for dashboards here
- See an example dashboard with performance metrics here



STEP 4 DDDD

OPTIMIZE AND EXPAND YOUR MARKETING TO ACQUIRE NEW USERS AT SCALE

Build a mass-market brand with above-the-line advertising

If your digital program is targeting end users, consumers or clients that use a digital solution by choice rather than for work, marketing will play an increasingly important role as you scale. In the early phases of a digital development project, you may not have needed a sophisticated marketing strategy. But scaling it to a large number of end users requires developing plans for both mass-market advertising above-the-line (ATL) and targeting specific households or individuals below-the-line (BTL). ATL advertising — via television, radio and billboards — can be the most powerful tool for establishing a new brand or generating awareness of a new digital service among the general population.

You may need an agency to help with creative production and media. Some agencies and media outlets may be willing to work for NGOs pro bono or offer reduced rates. Also, locally produced TV or radio shows may be willing to showcase your product or services for free if it's useful for their viewers and listeners. Talk with local agencies, marketing associations and corporate and media partners about the possibility of joint campaigns where they might be willing to share costs if they see a mutual benefit in promoting your solution.

However, ATL advertising is not a cost-efficient way to target a relatively small segment of people, or to explain how an innovative or complex digital product or service works. Advertising costs can be prohibitively expensive and access can be an issue. If you're targeting low-income or rural communities, it's worth researching whether they have access to television or radio.

Acquire specific target groups with below-the-line advertising

BTL marketing may be more familiar to most digital development programs. This approach is much more targeted, using digital mobile channels such as SMS, USSD and outbound dialing (OBDs) to reach specific segments of mobile subscribers defined by characteristics such as gender, location or mobile usage habits.



In practice | Esoko

Adapting your message to your audience

When it came to marketing our new m-commerce service, we first needed a name that would connect to both our locations. We chose Fasiba for this reason — Fasie (Twi for Save) + Akiba (Swahili for Save). After we had a name, we needed marketing materials. We created brochures for farmers, suppliers and financial institutions. When distributing marketing materials, our materials and approach varied a lot depending on the audience.

The brochures for suppliers and financial institutions were focused on the value proposition of being a partner, and were distributed at conferences, during speakerships and in exhibition halls, at one-on-one meetings, at open houses we hosted in different cities for potential clients and on our website. We found that conferences were a great venue for onboarding clients, but required more of a sales-focused, consultative approach.

The brochures for farmers focused on outlining the steps to join the program and were distributed by field agents. To reach farmers, we do a lot of radio communications on local stations, which is important because farmers in Ghana rely on local radio and it is much cheaper than national radio. A 30-second radio jingle on national radio costs US\$1,000, while the cost on local radio channels is one-hundredth of that.

Regardless of who you are targeting, it's really important to make sure that communications staff get sufficient training leading up to product launch and can speak about the product to others.

Other examples

In India, IFFCO, a multistate farming cooperative society, partnered with Airtel, an MNO, to launch IFFCO Kisan Sanchar Limited (IKSL) to provide farmers in rural villages with useful agricultural information through prerecorded, outbound IVR calls. The IKSL service comes bundled with a special Airtel SIM card called Green SIM. Airtel Green SIMs are sold by existing IFFCO agents at their fertilizer retail outlets which are ubiquitous in many North Indian states. Any farmer who buys a Green SIM will start receiving free IKSL calls with agricultural tips and advice every day. Green SIM sales support the cost of the free IVR calls. This powerful partnership, which linked an existing retail network with an innovative SIM plan, has secured hundreds of thousands of users across several states. Read more here.



BEYOND SCALE | Roll Out Module: Step 4 of 5

Face-to-face marketing is also very common in rural markets, where events, video vans, street theater and door-to-door promotions are used to reach specific target groups in their villages and homes. Channels such as rural face-to-face marketing can be very expensive, however, and many digital channels may be of limited use in geographies with low levels of literacy or limited access to smartphones and mobile data, or for programs whose users are not regular smartphone or social media users. Use surveys, focus groups and program staff to research the technologies your target users are able to access and can afford to use.

ATL advertising — via television, radio and billboards — can be the most powerful tool for establishing a new brand.

Negotiate marketing partnerships with mobile network operators or aggregators to reach mobile subscribers at scale

One of the biggest challenges faced by digital solutions that aim to reach mass markets — for example, all school teachers or mothers in a particular area — is how to cost-effectively acquire users. This is particularly challenging if those users are low-income and rural. Most digital development services that have achieved scale have marketing agreements with their MNO partners. In exchange for access to free, high-quality content and a healthy percentage of revenue, MNOs may agree to promote your service via their digital channels and through their thousands of top-up shops.

Depending on the nature of your service, MNO marketing can succeed or fail. For example, if your digital service is targeting low-income, rural, illiterate women, MNO marketing might not be very effective. They may not be able to read SMS or USSD promotions or make purchasing decisions without permission from their husband or a male relative. On the other hand, if you're selling English-language learning to literate, male job seekers, MNO marketing could be a great way to reach potential customers. It's thus wise to research what technology your target users consume and their relationships with top-up shops before finalizing your strategy and MNO partnership agreements.

FOR MORE INFORMATION SEE:

Business Model: STEP 1. UNDERSTAND WHAT THE CHANGING LANDSCAPE MEANS FOR YOUR DIGITAL SOLUTION

Partner Relationships: STEP 2. IDENTIFY POTENTIAL NEW PARTNERS



How to

- Learn more about ATL and BTL marketing in an infographic here
- See a customer segmentation toolkit here and a creative brief template here
- Read more about how to develop mutually beneficial partnerships with MNOs here and here

Explore marketing partnerships with organizations that already have active and sustainable marketing and distribution channels

If your digital solution is aimed at low-income consumers, it may not generate sufficient revenue to motivate an MNO to commit valuable marketing resources. In these circumstances, it may be more productive to build mutually beneficial partnerships with fast-moving consumer goods companies or companies that sell agricultural inputs, which already have significant rural marketing budgets and programs.

These corporations may see the value that your digital services could add to their brand more clearly than an MNO. They may be willing to use their existing rural marketing channels to promote your digital solution in exchange for brand promotion, product placement or advertising space. When thinking about these kinds of partnerships, considering whether the firm is one you feel comfortable tying your brand to, and pay special attention to revenue share. The more partners you add to your mix, the further the revenue needs to be split, and your business model may cease to be viable.

If relevant, work with cooperatives and self-help groups that are already active in the communities you're targeting — such as farmers' cooperative and micro-credit groups — to see if they can provide a channel for promoting your solution.

FOR MORE INFORMATION SEE:

Business Model: STEP 3. IDENTIFY WHO IS GOING TO PAY FOR THE NEXT PHASE



STEP 5 >>>>>

DEVELOP SUSTAINABLE, COST-EFFECTIVE DISTRIBUTION CHANNELS AT SCALE

Ask the big questions that impact distribution

Sustainable distribution at scale is one of the biggest challenges faced by the digital development community today. You will need to figure out how to deliver your digital solution or content to thousands, if not millions, of low-income people, many of whom live in rural communities. This will require asking fundamental questions about how your users access digital services and the types of relationships you'll need to build.

For example, are you expecting your target users to call or SMS a short code to access your digital service? Will they download it from a website or app store such as Google Play? Or will they load it on their existing phones using a wired connection, SIM card or memory card? If distribution needs to be done in person, can you feasibly build relationships with retailers, such as top-up shops, willing to distribute your solution? Ask questions now about how your distribution channels, in person and virtual, need to change to become sustainable at scale.

FOR MORE INFORMATION SEE:

Solution Design: STEP 1. USE A HUMAN-CENTERED DESIGN APPROACH TO REASSESS YOUR USER REQUIREMENTS

Assess changes in users' digital access and literacy

The answers to these questions may lie in a rapidly changing digital environment where expansion of fixed broadband, 3G and 4G networks and smartphone ownership are boosting consumer data usage and creating new distribution opportunities. Conducting new research to identify any widespread changes in your target users' access to devices and connectivity may help you identify new ways of reaching users. Do users who previously had access to only brick or feature phones now regularly use smartphones? Do users have better access to mobile data through expanded 3G or 4G networks?



In practice | BBC Media Action

The pitfalls of public sector distribution at scale

We began transitioning the cost of running Mobile Kunji, our IVR and print-based RMNCH job-aid for community health workers (CHWs), and Mobile Academy, our IVR-based RMNCH training course for CHWs, to governments in three Indian states in 2013.

One of our key strategies was to integrate our short codes into Closed User Group (CUG) SIM plans already procured by state governments for CHWs, thus making calls to our mobile health education services free to CHWs.

In the first state, we successfully supported the government in extending its MNO agreement to provide free calls to Mobile Kunji to CHWs in five districts from their CUG SIMs. The government distributed the SIMs to CHWs, registering their contact details, and providing us with the data for monitoring and reporting. The distribution went well, we received the necessary data, and the CUG SIMs functioned as planned.

Having successfully tested our strategy, we supported the government in the next state in extending its agreement with the same MNO to provide CUG SIMs and free calls to Mobile Kunji and Mobile Academy to 143,000 CHWs. Perhaps because of the scale, distribution was less successful. For example, all the SIMs were registered in the name of one government official, instead of each CHW. It took two years for the government to trace and register all the CHWs who had received SIMs. We never got all the data. And this wasn't the end of our troubles. A year after the SIMs were distributed, they were de-activated due to government nonpayment of an MNO invoice. The government eventually paid the invoice, but reactivation was patchy.

In the third state, government distribution of CUG SIMs to more than 100,000 CHWs was nearly comprehensive, but no explanation about the purpose of the SIM or its features was provided — to the extent that CHWs who received SIMs loaded in dual SIM smartphones didn't know they were there.

Our learning from these experiences has been that the distribution of any physical asset (i.e. hardware of any kind), which needs to be explained and maintained, can prove a significant logistical challenge at scale. Sufficient time and project resources need to be allocated to supporting government with distribution and maintenance.



It's also important to figure out whether your target users' digital literacy levels have changed. For example, they may have phones that can access the internet, but have they ever gone online? If your target users are early adopters such as young men, their digital capability may have changed dramatically since you first launched your digital solution. On the other hand, if they're traditionally late adopters, such as middle-aged rural women, it will take more time before they can be reached through new technology or communication networks, and you may need to continue using legacy technology to distribute your solution.

FOR MORE INFORMATION SEE:

Solution Design: STEP 1. USE A HUMAN-CENTERED DESIGN APPROACH TO REASSESS YOUR USER REQUIREMENTS

Assess private-sector distribution costs

Once you've figured out which technologies your target users are using, you'll be in a stronger position to identify effective distribution partners. At the pilot stage, your staff or an NGO partner may have managed distribution. But at scale and to make the distribution sustainable, you'll need to build partnerships with the private sector or local government to get your solution into the right hands.

MNOs have powerful distribution channels, including vast retail networks of top-up shops. But most of these top-up shops are independent and will expect financial incentives for anything they distribute. This is likely to be true of any commercial distribution network. Thus, you'll need to build distribution costs for these partners into your business model and budget.

FOR MORE INFORMATION SEE:

Business Model: STEP 4. FORECAST REVENUE FOR YOUR DIGITAL PROGRAM

► Partner Relationships: STEP 2. IDENTIFY POTENTIAL NEW PARTNERS

Consider public-sector distribution risks

If you run a public-sector digital development project, you may be relying on local government to distribute devices and SIM cards with data plans to target users, such as community health workers or primary school teachers. This can be fraught with challenges related to time-consuming procurement processes when you're expanding your program.

First, you'll need to negotiate partnerships with device manufacturers to test and bundle your digital solution on their devices. Then you'll need to figure out how the government can procure these devices from these manufacturers. Next, you will have to support the government through a lengthy procurement process. Finally, you'll need to closely monitor distribution.



Other examples

Several agriculture, education and entertainment organizations partnered with mobile phone manufacturer, Nokia in a service called **Nokia Life Tools**, to gain access to its handset distribution network in low and middle income countries (LMICs). Nokia pre-loaded SMS-based mobile apps developed by partner organizations onto feature phones, allowing target users to access valued digital content and services after buying a new handset.

Nokia Life Tools was eventually shut down in 2013 when access to smart phones and web-based services became more available to users in LMICs. Simultaneously, MNOs increased the competition with their own value added services and would not provide Nokia Life Tools with cost-effective SMS rates. This example illustrates that digital programs can both expand through partnerships with private sector organizations with large distribution networks and eventually fail due to changes in users' digital access. Read more **here** and **here**.

Watch Edmund Page from Xavier Project talk about the challenges their programs face in distributing mobile devices to refugee committees in order to provide education using basic mobile-handsets.



How to

- View the Mobile Economy reports, produced annually for many countries and a good source of data for planning your distribution, here
- Read insights about distributing and managing devices at scale here

Keep in mind that devices will have to be repaired and regularly replaced, and the government will have to monitor and regularly make payments for SIM plans. Lessons from your earlier phases need to be understood and built into your plan for distribution at scale. Keep track of delays and challenges related to distribution that you have experienced, and build the inevitable delays into your time line. If possible, explore private sector distribution channels.

1234567

RESOURCE ROLLUP

Who do you need?

Expanding your digital development program requires bringing in new skills and augmenting the size of current teams supporting different functions. The table below indicates the types of human resources you will need to complete the steps in this module. Your partners' support with technology, distribution and marketing will be integral to rolling out a scaled program successfully.

Activity	Resource type
Project management	Program and/or Project Manager, Coordinator
Solution support	Technical implementation specialist, Technical support partners
Distribution and sales	Distribution and Sales Manager, Project Manager, Partnerships Manager
Marketing communications	Marketing Communications Manager, Coordinator, Marketing partners

Pro tips

- Establish discipline around process. Roll out at scale requires building program systems and infrastructure, which takes time and involves working through many details. Adopt a process mindset: simplify repeatable processes, document then, train your staff to use them, and apply them.
- **Invest in good project management.** Spend the time and resources needed to find the right people, methodology and tools to manage the growth of your program. A qualified and experienced project manager is indispensable for managing roll out at scale and helping your team navigate the unexpected.
- Think outside the box when it comes to marketing and distribution. Exploring new partnerships with public and private organizations with massive distribution networks and new communication technologies can help you reach millions if you know how these end users prefer to be reached.


BEYOND SCALE | Roll Out Module: Resources

Key step	Referenced resources
1. BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE	 Guide: Planning for Implementation Article: What's the Difference? Agile vs Scrum vs Waterfall vs Kanban Article: Best Project Management Software
2. PLAN FOR SUSTAINABLE TECHNICAL SUPPORT AT SCALE	 Article: IT Support Levels Clearly Explained: L1, L2, L3, and more Article: Delivering Large Scale IT Projects on Time, on Budget, and on Value
3. ADAPT TRAINING, MONITORING AND SUPERVISION PROGRAMS FOR SCALE AND SUSTAINABILITY	 Guide: Train-the-Trainer Manual Guide: Becoming a Trainer Example: Training Observation Checklist Article: Developing Business Decision-Making Models that Really Work Article: 4 Common Errors that Kill Data-Driven Decisions Article: What is a Digital Dashboard? Example: cStock Dashboard
4. OPTIMIZE AND EXPAND YOUR MARKETING TO ACQUIRE NEW USERS AT SCALE	 Case Study: Rural Telecom-Related Services Infographic: Above-the-Line vs Below-the-Line Marketing Toolkit: Customer Segmentation Toolkit Example: Creative Brief Template Guide: Building Effective Partnerships between MNOs and NGOs in Complex Environments and Crises Guide: A Practical Guide for Engaging with Mobile Network Operators in mHealth for Reproductive, Maternal, Newborn and Child Health
5. DEVELOP SUSTAINABLE, COST-EFFECTIVE DISTRIBUTION CHANNELS AT SCALE	 Article: Nokia Life Tools Launched across India Article: Nokia Life Report: GSMA The Mobile Economy Guide: Managing Devices at Scale



BEYOND SCALE | Roll Out Module: Glossary

Term	Definition	
16/5 support	A support service that is provided 16 hours a day Monday to Friday.	
24/7 support	A support service that is provided 24 hours a day and seven days a week.	
Above-the-line marketing Source	Mass media marketing, through television, radio and print media, which is not targeted at a particular customer but to a wide audience.	
Aggregator Source	An organization that acts as a middleman between application and content providers, and mobile carriers. Provides message traffic throughput to multiple wireless operators or other aggregators; provides mobile initiative campaign oversight and administration, as well as billing services.	
Agile methodology Source	An approach to project management utilized in softwa development. It uses incremental, iterative work sequences, commonly known as sprints.	
Below-the-line marketing Source	One-to-one marketing through the distribution of pamphlets, handbills, stickers, promotions and brochures placed at point of sale or roadshows.	
Closed user group (CUG) Source	Closed User Groups are groups of mobile telephone subscribers who can only make calls and receive calls from members within the group.	
Fast-moving consumer goods (FMCG) Source	Products that are sold quickly and at relatively low cost, including non-durable goods such as over-the-counter drugs and food.	
Level 1 support Source	Basic help desk resolution with lower-level technical personnel trained to support basic customer issues, such as solving usage issues and fulfilling service desk requests that need IT involvement. Also called Tier 1 support.	



BEYOND SCALE | Roll Out Module: Glossary

Term	Definition
Level 2 support Source	In-depth technical support from experienced and knowledgeable technicians, but not necessarily engineers or programmers, for problems that cannot be handed by Level 1. Also called Tier 2 support.
Level 3 support Source	Expert-level product and service support with access to the most skilled technical staff for problem resolution or new feature creation. Support is provided by chief architects, engineers or product developers who attempt to duplicate problems and define root causes using product designs, code or specifications. Also called Tier 3 support.
Outbound dialers (OBDs) Source	An outbound dialer, also known as a predictive dialer, dials a list of telephone numbers and connects answered dials to people making calls, often referred to as agents. Predictive dialers use statistical algorithms to minimize the time that agents spend waiting between conversations, while minimizing the occurrence of someone answering when no agent is available.
Revenue share Source	The distribution of profits and losses between stakeholders, such as partners, employees or companies in an alliance.
Service level agreements (SLAs) Source	A contract between a service provider and an end user that defines the level of service expected from the service provider. SLAs are output-based specifically defining what the customer will receive.
Short code Source	A short digital sequence, significantly shorter than a telephone number, that can send and receive SMS and MMS to and from mobile phones. Users send a message to a short code to receive a canned response such as a web link. Each country has its own system.
Top-up shop	A business where an individual can add value to their mobile phone package.
Train-the-trainer (TTT) or Training-of-trainers (TOT) Source	An education model whereby individuals identified to teach, mentor or train others attend training themselves.



Term	Definition
Unstructured Supplementary Service Data (USSD) Source	Unstructured Supplementary Service Data (USSD), sometimes referred to as "Quick Codes" or "Feature codes", is a protocol used by cellular telephones to communicate with the service provider's computers. USSD can be used for browsing, prepaid callback service, mobile-money services, location-based content services, menu-based information services and as part of configuring the phone on the network.
Virtual private network (VPN) Source	A virtual private network (VPN) extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. Applications running across the VPN may therefore benefit from the functionality, security and management of the private network.
Waterfall methodology Source	A sequential, non-iterative design process, used in software development processes in which progress is seen as flowing steadily downwards, like a waterfall, through the phases of conception, initiation, analysis, design, construction, testing, production/implementation and maintenance.

1234567

BEYOND SCALE | Roll Out Module



Digital Impact Alliance

HUMAN CAPACITY

BEYOND SCALE: How to make your digital development program sustainable





HUMAN CAPACITY

MODULE SUMMARY

A business plan is a piece of paper. A killer app is a few lines of code. No matter what an organization's digital product or service is, people are its most important asset. Managing a team is more than just the administration of human resources. It's about people: the set of talents, skills and experiences that any organization or program needs to deliver successfully, along with the processes that maintain and develop their people.

Human capacity needs change over time. Your NGO may have begun its digital development journey with just one or two technical staff, maybe a Head of ICT or a Director of Innovations. Alternatively, if you're a social enterprise or start up, your company may have grown in the early years thanks to the efforts of a handful of dedicated staff and a passionate founder. But after several years of operation, your original human resource strategy may no longer fit the needs of your next phase and it may be time to reassess. You may also be facing significant personnel changes as your original funding lifecycle nears completion.

As you visualize your next phase, think about what it will take to get there and, more specifically, who it will take. A detailed staffing plan can help you determine the right number and mix of talented, experienced team members or external contractors and service providers for your operational budget. And the right job descriptions, titles and recruitment strategy will help ensure that you bring the right people on board. Establishing training, mentorship, and peer learning opportunities and adopting new tools to model



BEYOND SCALE | Human Capacity Module

and reinforce desired behaviors can help set the stage for growth. These steps can help make your staff excited and engaged, rather than fearful or overworked, and solidify your work culture and quality standards across geographies.

As any organization that has operated consistently for many years will know, these steps are iterative and must be revisited regularly. Building them into your organization's annual strategic planning activities will help ensure you have the skills needed to reach the next phase and beyond.

This module draws on interviews with the digital development leaders of organizations in Africa and Asia, including BBC Media Action, Esoko, Dimagi, mHealth Kenya, TaroWorks, MR. SOLAR, and Akros, about their experiences of building the right teams as they scaled. Although you may have already spent significant time and energy on your HR strategy, learning from the experiences of others could help you develop it further, while avoiding common pitfalls on your journey to scale.

This module will help you understand how to meet your needs for human resources and capacity, as your organization or digital program expands.

It will help you:

- 1 Reassess your human resource strategy
- 2 Build a detailed staffing plan
- 3 Bring the right people on board
- 4 Share knowledge to build skills
- 5 Express, model and reinforce desired behaviors



Key steps

REASSESS YOUR HUMAN RESOURCE STRATEGY

- Identify the skills and experience needed for the next phase
 Compare new requirements to your existing staff capacity
 - Restructure your org chart in consultation with your staff

BUILD A DETAILED STAFFING PLAN

- Identify where you can source new skills and experience
 Estimate headcounts based on your implementation plans
 Consider your staffing model: permanent or contracted resources?

BRING THE RIGHT PEOPLE ON BOARD

- Develop new job descriptions
 Revisit and streamline recruitment processes
 Assess the channels available for recruitment and hiring

SHARE KNOWLEDGE TO BUILD SKILLS

- Document your team's resident knowledge
 Perform knowledge transfer and skills training (and re-training)
 Create mentorship and peer learning opportunities

EXPRESS, MODEL AND REINFORCE 5 DESIRED BEHAVIORS Establish and track clear, concrete performance indicators Integrate continuous feedback into daily work Incentivize teams and create a culture of performance Provide ongoing support to key program partners



STEP 1 DDDD

REASSESS YOUR HUMAN RESOURCE STRATEGY

Identify the skills and experience needed for the next phase

You may need people with different skills and experience in the next phase of your digital development program. You may already have experienced staff capable of managing people in your organization effectively, but if you're transitioning your program to government or entering into a new commercial partnership, you'll need people who can manage external relationships and dependencies too.

When expanding your digital solution to new locations, your organization may need people with new business, sales and marketing capacity as well as product managers to help localize your solution. You may also need additional finance, human resource and operational staff to support the growth of your digital program. Your strategy and roll out plan will drive your human resource needs in the next phase. See the graphic at the end of this step to help identify the new roles you might need. Note that your organization's staff may not necessarily be the right people to meet all your skill and capacity needs. Existing and new partners may be able to meet them more quickly and efficiently.

FOR MORE INFORMATION SEE:

- Strategy: STEP 2. ANSWER STRATEGIC QUESTIONS ABOUT YOUR DIGITAL PROGRAM
- Roll Out: STEP 1. BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE
- Partner Relationships: STEP 1. ASSESS YOUR EXISTING PARTNERSHIPS

Compare new requirements to your existing staff capacity and org chart

How do the skills and experience needed for your next phase compare with those you already have in-house? Conducting a gap analysis with key team members and HR staff can provide a qualitative and quantitative view of staffing, training and partnering needs. Some questions to ask in this analysis include: Could existing staff take on new responsibilities? Should we develop new skills in-house or outsource to a partner? (For example, should we increase staff to perform customer support for a larger user base or contract with a third-party customer support vendor?) Are these skills needed temporarily or permanently? Talk to your existing staff about their career interests in relation to your new requirements.



BEYOND SCALE | Human Capacity Module: Step 1 of 5

In practice | TaroWorks

Watch Brent Chism, CEO of **TaroWorks**, talk about how to assess what skills you need when revising your human resource strategy, and how they may change as your organization grows.



How to

- Learn how to manage the human side of change and transition here
- Learn how to assess current HR capacity against future needs here and how to close the gaps here
- View a tool for assessing organizational capacity here

Restructure your org chart in consultation with your staff

Once you've identified the new skills and experience that you'll need, and determined whether existing staff could grow into some of these roles, you'll need to restructure your organizational chart (as it relates to your digital program) in consultation with your staff. A clear, transparent and documented consultation process is key to successful restructuring and may be required by your HR policies. Although a new phase can be exciting, it can often be threatening to people too. A change in culture brought on by a transition can decrease your staff's morale and cause people to wonder what will happen to their jobs — and may even prompt some people to leave.

Many digital programs in their fourth or fifth year are still being run by small teams of individuals, who wear many hats and possess institutional memory that may not have been documented. It can be a huge and necessary relief to them to bring in new and dedicated resources. But recognize that it can also be emotionally difficult for people to let go and entrust certain responsibilities and relationships to new hires. In some cases, bringing in experienced leaders to manage team members can be a good decision for the scale-up, but it can also be demotivating for individuals who had been working independently.

In addition, many digital development projects are started by passionate and invested entrepreneurs or program leads, and the next phase may involve a major shift towards more standardized processes and administration. A transition to government, in particular, means more bureaucratic processes that may be challenging for staff accustomed to a start-up culture. You may need to identify high-performing team members who might be thinking of leaving and incentivize them to stay, either with an improved compensation package or new career growth opportunities.

Skills you may need in the next phase

Project Management

Critically, you will need project managers with experience in overall project management as well as technical project management. Consider which project management methodology is appropriate for your project — Waterfall or Agile are two possibilities — and hire someone with the right experience and, ideally, certification. For example, if you're making significant changes to your existing digital solution or planning a new service or product, those needs could be filled by a technical project manager with good communication skills who has experience with procurement, vendor selection, technical development and stakeholder management (sample job description here).

Financial and Business Planning

You will need people (who may be contracted or full-time) with financial planning and business management skills to help calculate the capital investment required to scale or transition a digital solution or program, as well as the operating costs required to run it. This applies to both the public and private sector, because donors, governments and for-profit investors want to know how much it costs to set something up and run it. You will also need these skills to forecast expenditure and track burn rates. If you are a for-profit or an NGO considering a commercial business model, you'll also need someone to forecast revenue and calculate when you'll break even.

Partnership Development and Management

If you're planning on building new partnerships, for example, with mobile network operators (MNOs), you're likely to need someone in an account manager role — ideally someone from the commercial mobile industry who understands how MNOs work and can forge mutually beneficial relationships. On the other hand, if you're trying to transition a digital product or service to government or you're working on strengthening government ICT systems, you'll need people with experience of navigating planning, budgeting, approval and procurement processes in that country.





Institutionalization or Marketing

If you're trying to institutionalize a digital intervention by embedding it in government systems and processes, you'll need to identify government staff willing to take responsibility for this work. Staff might also be needed to deliver training and provide ongoing monitoring and supervision. Additionally, you'll need to think about the people required to support this process in your organization, who will both need to understand technology and have experience of working with local government in a development context. On the other hand, if you've developed a direct-to-consumer service that targets beneficiaries or customers directly and you want to grow your user base, you'll need experienced marketing staff, ideally with above-the-line and below-the-line marketing expertise.

Sales or Business Development

If you're planning on expanding to a new geography or market, you may need someone with experience in sales or business development in that market (sample job description **here**). But if you're working to transition a service to government or strengthen existing government ICT systems, you may need people with business development experience to raise transition or technical assistance funding and manage partner relationships.

New Product or Services

If you're planning to modify your existing digital service or product to make it easier to scale, transition or earn revenue, or if you're planning to introduce a new product or service, you may need staff with experience of conceptualizing and specifying new digital services and products, often called a product manager in the private sector (sample job description here).



Some transitions have more complex HR implications than others

Replicating the success of an existing digital service in more geographies is likely to involve hiring more people with the same skills

Increasing the user base within existing geographies may require:

Lower

- More trainers, and monitoring and supervision staff in the field
- More marketing and sales staff in the field
- Increased distribution capacity
- More technical support and customer care staff
- More data analysts for analyzing and reporting on uptake and usage of digital services

Expanding to new geographies may require:

- Expert advice on the regulatory, policy and legal environment in the new geography
- New channel partnerships
- New marketing, distribution and sales partnerships and staff
- New training, monitoring and supervision staff
- New creative staff to localize content in new languages
- New customer care staff who speak local languages





Diversifying a digital portfolio by adding new products or services, or transitioning ownership to a 3rd party, could involve significant changes to human capacity throughout the organization; potentially even the appointment of a new CEO

Relative extent of change

Transitioning program ownership may require:

Higher

- Deep, cross-functional engagement to build capacity of new partners
- New partner leadership and management
- New partnership managers and specialists, including IT, marketing, sales, and finance



BUILD A DETAILED STAFFING PLAN

Identify where you can source new skills and experience

Finding and keeping the right people to support your next phase will depend on local job market's norms and conditions and your financial and organizational constraints. In expansion countries, you may need to choose between hiring people and outsourcing to local companies, given that IT talent may be scarce and expensive relative to development pay scales.

Much of the experience, skill and market intelligence you need may only be available in the private sector, which may operate very differently than your organization. You may need to revise your compensation structures and develop non-financial incentives to motivate staff recruited from the private sector. You will also have to think about how you'll meet goals for hiring women, which can be challenging in many countries. The quality and supply of local talent, average salary levels, typical compensation structures and perks, and laws and regulations related to hiring and contracting are all part of the landscape that your staffing plan will need to consider. Consider how your partners might be able to contribute additional skills to support your growth.

Estimate headcounts based on your roll out plans

Once the roles needed in your org chart are clear, you'll need to estimate headcounts, which will largely depend on your roll out plans. Keep in mind where there may be efficiencies or economies of scale, which might allow you to handle more volume with smaller increases in staff.

For example, you may not need to triple the number of call center agents just because you plan to triple your users. Improving training and supervision so that each agent can handle a larger number of calls per shift might allow you to scale more efficiently with fewer new agents. It's important to be realistic about how quickly you can increase your headcount in different areas, especially if financial or recruiting constraints slow the pace of hiring. Also, think about how your partners, such as outsourced technical support providers, may need to adjust their own staffing plans to support the next phase.



In practice | Esoko

Don't be afraid of change, even at the very top

In 2015, as we re-examined our vision for the company, we realized that a new set of skills was needed for growth. The Board of Directors, in consultation with the former CEO, decided a new CEO with new skills was needed. To ease the transition, staff were informed of the decision well in advance, and the search for new leadership was conducted in an open and transparent manner. In late 2015, a new CEO with a digital development and business background was hired.

Once on board, the new CEO quickly realized that developing and rolling out the new e-commerce product would require commercial investment and someone with a background in finance. A quick assessment revealed that this skill set was missing from Esoko's team, and as a first order of business, the CEO hired a VP of Finance and Operations with experience in investment banking to fill that capacity gap.

While the changes to senior leadership have been critical, the business model shift has had far-reaching impacts on human resources. For example, the new m-commerce service, now called Tulaa, has required development of a cadre of call center agents. When we went to hire call center agents, we placed great emphasis on finding individuals with agricultural expertise that could engage with our customers in a respectful way.

Agents needed minimum one year of field experience, an agricultural-related degree and must speak at least three of the native languages spoken by our users. Agents also needed the right attitude, to show respect for the agricultural trade and not speak in a condescending tone to farmers. It took us three months to hire five agents, but has proven worth the wait.

Other examples

Zambian health technology provider Akros creates a large project plan at the start of every scale-up phase, which covers the districts slated for training, the timing of each training, and the number of supervision visits per district. Using this plan which estimates the effort in person hours and days required to deliver each task management is able to quantify human resource requirements in order to recruit or scale down the number of staff as needed.



FOR MORE INFORMATION SEE:

Roll Out: STEP 1. BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE

Partner Relationships: STEP 1. ASSESS YOUR EXISTING PARTNERSHIPS

Consider your staffing model: permanent or contracted resources?

NGOs and social enterprises entering a new phase of growth will have varied HR needs but may still have limited budgets. You don't necessarily need new full-time employees for every new role, especially if the skills you need are expensive and are only required for a relatively short time. Using freelance contractors or management consultants or shifting responsibilities to partner organizations can be more cost effective and flexible.

For example, some digital development organizations hire data scientists or financial analysts for only two to eight weeks to establish key performance indicators (KPIs), define reporting requirements, or identify economic or operational efficiencies. Once a data model has been established, less-expensive analysts can populate it going forward. Secondments can also be used to provide direct technical assistance, especially when program ownership is being transferred to a government.



Other examples

Watch Erik Luttjehuizen from MR. SOLAR talk about how his former company SolarNow hired the right people.



How to

- View a guide for hiring remotely based contractors here
- See other organizations that support knowledge sharing for scaling digital solutions here, here, and here
- Read an example of a tool for assessing needs and developing an HR plan here



The right capacities across the board

Do you have the right....?

rship	✓ ✓ ✓ ✓	To work with staff to create a vision for change To align staff with the new vision To motivate and inspire staff To make change happen
Leade	•	Board of Directors Top Leadership (CEO, President, Organizational Director, Chief of Party or Country Director) Senior Management Teams (C-level, VPs, Directors and Heads of Departments)

	 To design, develop, manage and support a new solution To create new content or localize existing content To research and user test new functionality or services with existing or new audiences To roll out the services – through training, marketing, distribution, sales etc. To hire and train new people
Staff	 Thematic experts (health, agriculture, finance, rights and gender, etc.) Technical architects, business analysts, developers, QA and test teams and support staff Content creators (producers, writers, graphic designers, editors, videographers, photographers and animators) Researchers (qualitative, quantitative, human-centered design, user testing, market research and impact evaluation experts) Financial analysts and accountants Marketing, sales, training, monitoring and outreach staff

0
5
ŋ
\geq

To bring in now funding or invostment
I o develop and manage implementation plans
To hire, train and manage staff
To forecast, track and manage income and expenditure
To identify and manage risks
To report on outcomes
To manage new relationships with governments, donors
or other partners

 Project Directors, Program and Project Managers, and heads of ICT, finance, research, marketing, partner relationships and HR.

 To offer new strategic insights To provide thematic expertise To develop or support new digital solutions To create new content To test and evaluate impact To provide connectivity and billing To train, monitor and supervise To distribute, market and sell To bring financing or other donors to the partnership
 Strategic partners with thematic expertise Technical development or support partners Channel, marketing and distribution partners, such as MNOs or device manufacturers and retailers Implementing partners to roll services out in the field Donors and investors



BRING THE RIGHT PEOPLE ON BOARD

Develop new job descriptions

Whether you're hiring technical or operations staff, you'll want to attract individuals who not only possess the required skills and experience but also connect with your mission and vision. Well-developed job descriptions capture both hard skills and intangible traits.

If you're an NGO, it's worth considering aligning your job descriptions and, critically, job titles with standard job descriptions and titles from the private sector. This will help potential job applicants recognize themselves in your job descriptions. A good place to look for the right language to use in job descriptions is on the corporate websites of private sector companies, such as those in the mobile industry.

If you're an NGO, it's worth considering aligning your job descriptions and, critically, job titles with standard job descriptions and titles from the private sector.

For example, if you need someone who has experience of developing mutually beneficial relationships with MNOs, you may need someone who has worked as a product or account manager for an MNO, aggregator or mobile solution provider. Consider using language that will bring more diversity to your organization. For instance, flexible work arrangements, mentorship opportunities and skills training can help attract female talent.



In practice | BBC Media Action

Why NGOs need people from the commercial mobile industry

One of the reasons our mobile health education services have achieved scale in India is because we have deliberately hired professionals from the domestic mobile industry, to industry-standard job titles and job descriptions.

Our digital staff, hired in India, have worked for MNOs such as Airtel, management consultancies such as PWC, tech multinationals such as IBM, as well as aggregators, mobile technology solution providers and digital publishing companies.

We've taken this approach because we've learned that domestic talent from the mobile industry has valuable intelligence about how the sector is structured, financed and managed, as well as experience of performing well-defined industry roles.

We may have found recruitment easier than other NGOs, because the 'BBC' in our name attracts private sector professionals, who otherwise might not want to work for an NGO. But we have had to pay Indian recruitment agencies that specialize in the domestic mobile industry to head hunt candidates for us, going through many unsuccessful rounds of interviews.

One of the key challenges is that most high performing people in the tech industry already have permanent contracts, while we're only able to offer them fixed term contracts, linked to project funding. The instability of fixed term contracts can be a big deterrent. We have found it necessary to offer at least two-year fixed term contracts, with the possibility of renewal, to attract high caliber candidates.

Other examples

One of the biggest challenges faced by **Dimagi** in transitioning a national nutrition program over to the Government of India was hiring qualified Level 1 and Level 2 technical support staff. When transitioning the recruitment process to the government, Dimagi staff wrote job descriptions, designed practical tests for job candidates, and sat in on interviews with government hiring managers. Despite this, some of the newly hired government staff were assigned work unrelated to the program and did not provide the expected level of commitment. For this reason, Dimagi advises discussing time commitments with hiring managers to ensure program staff are dedicated to supporting the program.



Revisit and streamline recruitment processes

In a period of rapid growth, old processes for hiring and staffing might be too slow or cumbersome. For example, it may no longer be feasible for the executives of a growing social enterprise to review applications, short-list applicants and sit on firstround interview panels, so they must delegate these tasks to a dedicated HR manager or team. Though senior staff will need to be actively engaged in later interviews and hiring decisions, this person should be able to effectively drive the recruitment process — advertising jobs and briefing recruitment agencies, reviewing and short-listing applications, coordinating interview panels, making offers, and finalizing contracts.

It is also wise to test specific technical skills before making an offer. This is common practice in the private sector for a role such as software engineer, where applicants often complete coding tests. In some countries, private-sector companies might allow you to buy a departing employee's notice period, enabling your new hire to begin work more quickly.

Assess the channels available for recruitment and hiring

Your own staff and networks might be a good place to start when recruiting for the next phase. Encouraging your staff to share job postings through their social media networks and offering recruitment incentives such as bonuses can be effective ways to engage your staff in the process.

But what if you need to look beyond your current channels and networks to let people know that you're hiring? International development job boards might be good for finding people already working in the development sector, but job seekers may not have either the private-sector experience or local industry experience that you're likely to need. Digital implementers note that effective recruitment channels tend to be very local. Each market may have different, specialized recruitment agencies, go-to forums, websites or email lists. When it comes to government-related work, recruitment may be highly regulated with requirements about where and how long job postings can or must be placed.

Many NGOs say they face recruitment challenges for digital staff because they advertise jobs via email lists or low-cost websites due to budget constraints. However, in many countries, people working in the private sector rarely seek employment through these channels. Instead they almost exclusively use recruitment agencies. Remember to budget for the fees that agencies charge, typically based on a percentage of the post's salary. For international hires, factor in the time and cost of obtaining a visa for a new hire.



Other examples

When expanding into Tanzania, TaroWorks struggled to find the right people but learned that being slow to hire is important. While looking to hire three people, they screened 75 resumes and held 20 interviews. For job functions in areas like sales, managers bring people on for a trial period of about six months. The organization is transparent with candidates about this process and the criteria for evaluation. At the end of the probation period, there is a shared understanding of whether it was a successful term or not. The interview process and trial period help to reduce the risk that a hire will quit or be fired, forcing the company to go through the recruitment process again.

How to

- Learn more about how to develop good job descriptions here and here
- Read about steps that can increase gender-inclusive recruitment here

It is often worth investing in a recruitment agency with specific expertise for critical digital roles and senior management.



SHARE KNOWLEDGE TO BUILD SKILLS

Document your team's resident knowledge

Institutional memory might suffice in a small, centralized organization. It doesn't work as well when you're doubling your staff in six months or transitioning your program to the government. Standard operating procedures (SOPs) for addressing system issues, scoping new features in consultation with external partners, and communicating system updates and releases to users or partners are extremely helpful for new technical staff.

Digital programs at the four-to-five-year mark may have some formalized processes and guides, such as technical manuals, but these may lack the full detail needed to train new hires across management, operations, marketing and technical functions. Document this resident knowledge through manuals, SOPs and resource repositories, and store them in a location accessible to all new staff or consultants. Dedicated staff time should be budgeted and set aside for process documentation, including updates that will ensure these are living documents.

Perform knowledge transfer and skills training (and re-training)

The transfer of business, operational and technical knowledge from your core staff to new staff, contractors and partners is an important activity for most organizations that are expanding or transitioning their digital solutions. For instance, your existing teams will need to comprehensively transfer knowledge of your technical solution to government IT staff or empaneled government agencies to effectively complete a transition.

Furthermore, your program or organization may have changed a lot since it first started, and you may have some "old-timers" who are used to doing things a certain way. Effective training programs are designed to be iterative, continually refreshing old skills while adding new ones.

Frequent re-training is particularly important when delivering information or services digitally. Technology is constantly changing, as are the skills and knowledge of new staff who may be joining your organization. Re-training opportunities will help existing staff stay up-to-date and prepared to leverage new technologies. For example, paying for your



In practice | mHealth Kenya

Watch Dr. Cathy Mwangi, CEO of **mHealth Kenya**, talk about how she identifies gaps in knowledge within the company and seeks advice from others to build her knowledge.



How to

- Learn how to write an SOP here and see guidance on creating a resource repository here
- Learn how to integrate peer learning into your organization here
- Connect with others in your field through peer learning forums here, here, and here
- See free or low-cost training and skill-building resources here, here, here, and here
- View an excellent resource for software developers to stay up-to-date here



BEYOND SCALE | Human Capacity Module: Step 4 of 5

developers or software engineers to take online courses in relevant areas could help your program evaluate new software options.

Train-the-trainer models are often used to quickly and cost-effectively build up training capacity in digital programs that are transitioning to government or other partners. Resist the urge to create training materials from scratch. Internal training resources likely exist already and can be used to equip staff with the skills they need.

FOR MORE INFORMATION SEE:

Roll Out: STEP 3. ADAPT TRAINING, MONITORING AND SUPERVISION PROGRAMS FOR SCALE AND SUSTAINABILITY

Partner Relationships: STEP 4. TRANSFER KNOWLEDGE TO YOUR PARTNERS



Create mentorship and peer learning opportunities

Building skills doesn't happen only in the training room. Mentor programs that pair experienced staff and new hires open up informal opportunities for growth. Organizationwide networking sessions and lunchtime presentations are good opportunities for spreading knowledge and skills within and across different teams. Frequent peer-to-peer or mentor-tomentee interactions in small groups or one-on-one can support continued learning outside of formal training sessions and help your team feel supported during rocky periods as you grow or transition. Mentorship and peer support can also be applied to cultivate female talent and leadership within your organization.



Mentor programs that pair experienced staff and new hires open up informal opportunities for growth.



STEP 5 DDDD

EXPRESS, MODEL AND REINFORCE DESIRED BEHAVIORS

Establish and track clear, concrete performance indicators

When expanding into new countries, you will likely encounter different norms and practices for motivating individuals and managing their performance. In the commercial mobile industry of most developing countries, performance is measured against financial targets often set during an annual appraisal process. In many companies, when staff hit their targets, they receive a variable portion of their salary which would otherwise be withheld. And when they exceed their targets, they get a bonus. But in the NGO sector, staff salaries rarely have variable components, and many NGOs have policies against paying bonuses.

As you expand the scale of your digital solution and take on more private-sector staff, it can be very challenging for digital professionals from the private sector to transition to NGOs because their new KPIs can be so intangible. It's thus critical when agreeing on annual work plans with ex-private-sector staff to clearly define concrete KPIs — such as the number of new users to be acquired in a specific timeframe, or the launch of a new service within budget and to deadline, or transition of a specific contract to government by a specific date. It can be helpful to create success profiles that define what it means to be successful in each role. This is helpful for managers as they assess staff performance and for staff so they understand what is expected of them.

Integrate continuous feedback into daily work

Frequent communication using formal and informal feedback can help identify issues quickly and motivate teams with staff members who are new in their the jobs or have different responsibilities. In addition to annual appraisals, weekly documented one-on-one meetings between supervisor and employee — so often deprioritized in busy or challenging times — are useful to tackle real-time issues and sustain momentum. Regular team meetings and 360-degree feedback approaches — where people get feedback from those above, below and next to them on the org chart — can increase staff empowerment and provide people with a variety of perspectives. Digital programs striving for growth and sustainability should also get performance feedback from their key stakeholders and customers.



In practice | BBC Media Action

Managing performance without carrots and sticks

Hiring people from the commercial mobile industry has brought significant skill and experience to BBC Media Action, India. But senior management staff with development backgrounds have needed to introduce them to development objectives, policy constraints, and new KPIs — i.e. social impact as opposed to revenue targets.

It has also been tricky to motivate and retain some private sector staff, who are used to receiving a variable component of their salary every year based on performance. This means that if they do not perform against agreed targets, they do not get paid a percentage of their salaries. Many techies are also used to receiving substantial annual pay hikes based on performance. We've either lost or had to let go staff who were not motivated to perform without these carrots and sticks.

But we have also managed to retain dedicated people for many years. This loyalty seems due to a combination of factors, including the scale, impact and government adoption of our mHealth services, which has made the work rewarding. The opportunity to take on new responsibilities, which might not have been possible in a more structured, hierarchical commercial environment, has also proved compelling. And our more sympathetic and flexible attitude towards family life seems to be a key factor. Identifying and articulating these non-financial benefits to staff has been critical to retention.

Other examples

- Leaders in Malaysia's Ministry of Health developed a two-pronged approach to address challenges of user resistance, change management and training. They first created project committees that provided feedback on solution design. Committee members became "super users" who then trained others. Then they identified healthcare providers who were resisting change and engaged them to lead solution deployment efforts, which led to greater clinician uptake. Read more here.
- Listen to Erik Luttjehuizen from
 MR. SOLAR talk about why he is a believer in 360-degree feedback and how it was conducted at his former company.



Incentivize teams and create a culture of performance

People are the most valuable resource for strengthening growing programs. Making the performance review process transparent and building in incentives, both financial and non-financial, will drive strong performance. While monetary rewards are critical, the importance of creating a culture in which people feel recognized for their efforts should not be underestimated. Some popular, non-monetary incentives include job title promotions, awards that highlight outstanding contributions, and sponsorships to attend professional conferences or training programs.

Provide ongoing support to key program partners

If you are transitioning entire digital programs or key responsibilities to a government or other partners, consider areas where your ongoing support may be required after the transition. There may be areas where your staff need to be engaged to support the partner over longer periods of time.

While monetary rewards are critical, the importance of creating a culture in which people feel recognized for their efforts should not be underestimated.

For example, if you are a social enterprise that has built a digital services platform and your pilot program is being adopted by a government, your lead developers may need to continue providing Level 3 technical support to users, even as you train government staff to provide Level 1 and Level 2 technical support. Ensure that the new owner of the program has budgeted for your staff time during the transition period.

FOR MORE INFORMATION SEE:

- Roll Out: STEP 2. PLAN FOR SUSTAINABLE SUPPORT AT SCALE
- Partner Relationships: STEP 4. TRANSFER KNOWLEDGE TO YOUR PARTNERS



BEYOND SCALE | Human Capacity Module: Step 5 of 5



How to

- Read more about success profiles here
- Learn about 360-degree feedback surveys here
- See sample questions for identifying gaps in performance and incentives here



RESOURCE ROLLUP

Who do you need?

Revising your HR strategy and plan, and revamping your tactics for recruitment, retention, training and performance management, will probably require some some skill sets you don't currently have on the pay roll. Fortunately, some of the people you'll need to help with these activities don't need to be permanent hires. Creatively engaging recruitment agencies, professional services firms and talented individual contractors can keep costs manageable.

Activity	Resource type
HR gap analysis	HR Manager, HR Operations Analyst (contracted)
HR activity scoping	Head of Operations
Recruitment strategy development	Head of HR or Operations, recruitment agency (contracted)
Performance management program development	HR Manager, performance management consultant (contracted)

Pro tips

- **Budget enough time to recruit for scale.** Finding qualified people, especially in lowresource environments, takes significant time and energy even with a sound recruitment strategy. When you set growth targets for your digital program, be realistic about how quickly you can hire people.
- Engage resisters, don't isolate them. Some digital development practitioners report that people who resist change in an organization can be effective advocates for it later if they are engaged early. Soliciting their opinions and channeling them into active roles can win them over.
- **Get people excited.** The prospect of rapid growth or change can be genuinely frightening to some team members. Focusing on a message of positive impact and giving plenty of attention to accomplishments can help people move beyond fear.



BEYOND SCALE | Human Capacity Module: Resources

Key step	Referenced resources
1. REASSESS YOUR HUMAN RESOURCE STRATEGY	 Article: Managing Change and Transition Toolkit: Workforce Planning Tool Kit: Gap Analysis Toolkit: Workforce Planning Tool Kit: Gap- Closing Strategies Toolkit: Institutional Development Framework Example: Project Manager Example: Business Development Lead
	Example: Field Manager
2. BUILD A DETAILED STAFFING PLAN	 Service: Upwork Example: Enhancement of Capacity to Further Improve Health System in Nepal
3. BRING THE RIGHT PEOPLE ON BOARD	 Article: Creating an Effective Job Description Article: Writing Good Job Descriptions Service: iHub job board Network: Asian Disaster Reduction & Response Network (ADRRN) Network: Asia eHealth Information Network (AeHIN) Network: Alliance for Financial Inclusion (AFI)
4. SHARE KNOWLEDGE TO BUILD SKILLS	 Guide: How to Write a Standard Operating Procedure Guide: A Guide to Peer-to-Peer Learning Network: ICT4D-Principles Working Group Network: ICT4CHW Network: Global Digital Health Network Training: +Acumen Training: Udemy Training: Online Learning Center's Africa Center for Project Management Training: Tech Change (TC105: Mobiles for International Development) Service: GitHub



BEYOND SCALE | Human Capacity Module: Resources

Key step	Referenced resources
5. EXPRESS, MODEL AND REINFORCE DESIRED BEHAVIORS	 White Paper: Success Profiles Guide: How to Do 360 Feedback Surveys and Help Your Entire Team Develop Handbook: Human and Institutional Capacity Development Handbook (Appendix 1.7 Sample Questions for Identifying Performance Gaps


BEYOND SCALE | Human Capacity Module: Glossary

Term	Definition
Above-the-line marketing Source	Mass media marketing, through television, radio and print media, which is not targeted at a particular customer but to a wide audience.
Account manager Source	An account manager is a person who works for a company and is responsible for the management of sales and relationships with particular customers.
Aggregator Source	An organization that acts as a middleman between application and content providers, and mobile carriers. Provides message traffic throughput to multiple wireless operators or other aggregators; provides mobile initiative campaign oversight, and administration, as well as billing services.
Agile methodology	An approach to project management utilized in software development. It uses incremental, iterative work sequences, commonly known as sprints.
Below-the-line marketing Source	One to one marketing through the distribution of pamphlets, handbills, stickers, promotions, brochures placed at point of sale or roadshows.
Break even Source	The point at which revenue received equals the costs associated with receiving the revenue.
Burn rate Source	The rate at which an organization is consuming or burning its financing or store of capital to support operations in excess of cash flow.
Business development Source	The activity of pursuing strategic opportunities for an organization, such as strategic partnerships, commercial relationships, and new markets for products or services.
Business model Source	A plan for the successful operation of a business, identifying products, revenue sources, customer bases and finance details.



BEYOND SCALE | Human Capacity Module: Glossary

Term	Definition
Capital investment Source	Funds used by a company to acquire or upgrade physical assets, such as property, industrial buildings or equipment.
Direct-to-consumer Source	Marketing aimed at the customer who will buy the product rather than the shops where it will be sold.
Economies of scale	Cost savings realized on a per unit basis as production or activity increases.
Gap analysis Source	A process comparing an organization's actual performance to its expected performance to determine whether it is meeting expectations and using its resources effectively.
Institutional memory Source	A collective set of facts, concepts, experiences and knowledge held by a group of people.
Key performance indicators (KPIs)	Measurable values used by managers to assess the effectiveness of processes and functions in meeting organizational goals.
Level 1 support Source	Basic help desk resolution with lower-level technical personnel trained to support simple customer issues, such as solving usage issues and fulfilling service desk requests that need IT involvement. Also called Tier 1 support.
Level 2 support Source	In-depth technical support from experienced and knowledgeable technicians, but not necessarily engineers or programmers, for problems that cannot be handed by Level 1 support. Also called Tier 2 support.
Level 3 support Source	Expert-level product and service support with access to the most skilled technical staff for problem resolution or new feature creation. Support is provided by chief architects, engineers, or product developers who attempt to duplicate problems and define root causes using product designs, code or specifications. Also called Tier 3 support.



BEYOND SCALE | Human Capacity Module: Glossary

Term	Definition
Mentor-to-mentee	A relationship by which a person (the mentee) is advised, trained or counselled by another (the mentor).
Non-financial incentives	Compensation given that does not involve cash, such as job title promotions, awards, and sponsorships to conferences or training programs.
Notice period Source	The time period between the receipt of the letter of dismissal or resignation and the end of the last working day.
Operating costs Source	The day-to-day expenses incurred in running a business, such as sales and administration, as opposed to the costs of production.
Peer-to-peer Source	A relationship between two or more people or groups, without any implied authority to any individual in the relationship.
Performance indicators	A measure to assess the performance of organizations or business units and their employees.
Product Manager Source	The role responsible for the strategy, road map and feature definition of a product.
Secondments Source	The temporary transfer of an official or worker to another position or employment.
Standard operating procedures (SOPs) Source	A set of step-by-step instructions compiled by an organization to help workers carry out routine operations. SOPs aim to achieve efficiency, quality output and uniformity of performance while reducing miscommunication.
Success profiles Source	A process that articulates the competencies and motivations needed for successful job performance
Train-the-trainer (TTT) or Training-of-trainers (TOT) Source	An education model whereby individuals identified to teach, mentor or train others attend training themselves.
Waterfall methodology Source	A sequential, non-iterative process used in software development in which progress is seen as flowing steadily downwards, like a waterfall, through the phases of conception, initiation, analysis, design, construction, testing, production/implementation and maintenance.



Digital Impact Alliance

PARTNER RELATIONSHIPS

BEYOND SCALE: How to make your digital development program sustainable





PARTNER RELATIONSHIPS MODULE SUMMARY

Whether you're an NGO or a social enterprise, you may have reached a point in your digital development program where some of your partnerships are working and others need to be reevaluated. As digital development solutions scale, transition ownership or develop new business models, their dependence on partnerships tends to increase, as does the complexity of these relationships.

Organizations often need to identify new technical solution partners, engage in deeper partnerships with government, and strike new commercial relationships. For example, you may be trying to transition your digital tool or service to government while simultaneously renegotiating with mobile network operators (MNOs) for cheaper network access time, with commercial vendors for cloud hosting and with both for higher levels of technical support.

Identifying which existing partner relationships need to be extended and renegotiated, and where you have partnership gaps, is important to do early, as these negotiations can take years.

Partnerships are effective when the value proposition to each partner is clearly defined in the beginning and reflected in written agreements. Creating partner structures and communication channels will allow you to continually reassess what is working — or not working — in the relationship and make it easier to realign partners' contributions as needed.



BEYOND SCALE | Partner Relationships Module

This module explores ways in which the mix of partners and the intensity of their engagement changes on the journey to scale and sustainability. It is based on interviews and conversations with digital development leaders at organizations including BBC Media Action, Esoko, Jembi Health Systems, International Center for Research on Women (IRCW), HealthEnabled and Digital Green.

The steps below aim to help you review your external partnerships, and identify new partners, who you might need to achieve scale and sustainability.

This module provides guidance from digital development implementers on how to:

- 1 Assess your digital program's existing partnerships
- 2 Identify potential new partners
- ▶ 3 Update agreements and revise your governance structure
- 4 Transfer knowledge to your partners



Key steps

ASSESS YOUR DIGITAL PROGRAM'S EXISTING PARTNERSHIPS Map your partners' roles and responsibilities against yours Assess your existing partners' combined abilities to meet new demands

IDENTIFY POTENTIAL NEW PARTNERS

- Assess the skills and capacities of potential new partners
 Identify the incentives for them to participate
 Assess whether more resources are needed to manage a growing consortium of partners

UPDATE AGREEMENTS AND REVISE Border Contracts Review and renegotiate your existing contracts Clarify and document mutual goals with new partners Revise your governance structure

TRANSFER KNOWLEDGE TO YOUR PARTNERS

- Develop plans for transferring knowledge and building capacity
 Update the way you measure partner performance
 Refine mechanisms for partner feedback and communication



STEP 1 DDD

ASSESS YOUR DIGITAL PROGRAM'S EXISTING PARTNERSHIPS

Map your partners' roles and responsibilities against yours

Some organizations find that creating a map of existing partners and stakeholders is a useful exercise. It can help you clarify current roles and responsibilities and identify overlaps and gaps based on your future strategy, **business model** and roll out plans. It may also help you systematically challenge your assumptions about who should do what or identify areas where new partnerships might strengthen your efforts and enable greater scale and sustainability.

Implementers interviewed for this guide note that a partnership map is also a useful tool for beginning a dialogue with your existing partners about the next phase. Proactive conversations with partners before you begin your expansion or transition can help ensure shared understanding of expectations and value propositions. They can also help identify less tangible issues that often derail partnerships, like differences in work cultures and unspoken goals.

Assess your existing partners' combined abilities to meet new demands

After you've completed a partnership map, you can do a gap analysis to identify whether you have the right partners with the necessary skills and capabilities to take your digital solution to the next stage. This exercise will answer questions such as: Can your digital solution handle two to three times the current call volumes or transactions? If not, are your technical partners capable of scaling your digital solution to meet stakeholder needs? Do they have the local resources to support the digital solution at scale, meeting stringent service level agreements (SLAs)? Do they have a physical presence in your expansion geographies? Do they have the local knowledge required for effective marketing and sales?

Proactive conversations with partners are essential, but a thorough assessment also draws on desk research and expert third-party analysis where possible. In some circumstances, it may be worth going through a competitive procurement process to determine whether your existing partners still offer the best value for your money, particularly if you may be asked to justify your choice of partners to government or private-sector stakeholders in the future.



In practice | Digital Green

Watch Rikin Gandhi from **Digital Green** talk about how they used digital tools to create a sense of ownership among partners.



Other examples

Jembi Health Systems, a health technology NGO, found while planning the scale-up of a project for the South Africa National Department of Health that it needed to partner with a national help desk to offer referrals to patients — something that was outside Jembi's expertise and capacity. After reaching a partnership agreement with a national help desk, the program began promoting the help desk number in its messaging.

How to

- Learn more about mapping partner ecosystems here
- Learn how to conduct an internal partner assessment here
- Find additional insights about how to talk about your value proposition to partners here
- See an internal prospective partnership assessment checklist here

FOR MORE INFORMATION SEE:

Solution Design: Step 4. PLAN YOUR TECHNICAL DEVELOPMENT FOR SUSTAINABILITY AT SCALE



STEP 2 >>>>

IDENTIFY POTENTIAL NEW PARTNERS

Assess the skill and capacity of potential new partners

After carrying out a gap analysis to identify the skills and capacities that you don't have but need for the next phase, it's time to identify and evaluate possible new partners. To evaluate new solution and service providers, you could send out a request for information (RFI) to a long list of potential vendors. An RFI is a great way of assessing what's available in the marketplace and will help you develop a more comprehensive request for proposal (RFP) or request for quotation (RFQ).

As part of this process, you can ask potential vendors for customer references so you can get third-party perspectives on their service quality and reliability. Ask them to provide summary CVs or biographies of the staff they will dedicate to your project and request interviews with key people to ensure a good cultural fit and rapport with your teams.

On the other hand, if you need to find partners to adopt your digital solution — such as government or a fast-moving consumer goods company — or to share costs and revenue to make your solution sustainable, you may want to do a landscape analysis to identify potential partners in a specific sector and geography.

The annual reports and public filings of large, publicly owned companies such as MNOs can provide useful data on how much revenue they make from different channels, products and services and give you insights into their priorities. For example, have they already invested in value-added services for low-income populations? Or are they more focused on data services for urban customers? You may also be able to identify network costs and profit margins from their annual reports which will be useful if you're trying to negotiate discounted price points for services or an increased revenue share.

For any prospective partner, getting a sense of their current relationships is important. Do they support other digital development programs? If yes, who are their key partners? Meet with these partners to understand the scale and complexity of their programs and the level of investment that they've secured.



In practice | Esoko

Strong MNO partnerships can make a big contribution to scale

We have partnerships with a number of different organizations that have helped us expand the services we offer and make them more interesting to our farmers. We partnered with Vodafone in Ghana to create the Vodafone Farmers' Club to allow users to pay for farming tips and market information with mobile phone credit. This made it easy and more comfortable for farmers to use our service, since they were already using mobile credit to purchase other value-added services. As a result, farmers were more willing to pay for our service, which made our revenue forecasting easier.

Partnerships with MNOs have also helped us scale our services efficiently. We operate an in-house call center, but our MNO partners manage our voice lines. Since this is part of their core business, they already have the technical skills needed to manage voice lines at scale and can handle issues much faster than we can. Similarly, in periods of high demand for our services — when there is a crop disease outbreak and many farmers are calling for advice — our MNO partners have the infrastructure to scale up the number of voice lines we need immediately. We leverage the existing scale of their operations and the methods they use to deliver their own services in order to deliver ours.

FOR MORE INFORMATION SEE:

Business Model: STEP 4. FORECAST THE REVENUE FOR YOUR DIGITAL PROGRAM

Other examples

The South Africa National Department of Health provides program coordination for the activities of over 20 NGO and donor partners delivering targeted mobile messages for pregnant mothers via **MomConnect**. Partners provide services ranging from software and content development to customer support and outreach. The program has scaled to serve over a million pregnant women across the country. Read more about the partnerships here.

Digital Green looks for three main attributes in field partners who use videos to support their agricultural programs: domain expertise in agriculture, current scale and expansion plans and whether they have strong community links supported by dedicated staff. Over time, it found that many partners were not always aware of the latest technologies and knowledge emerging from research. Digital Green plugs these gaps by pairing its partners with domestic and international research organizations that want access to field-based data from NGOs and government agencies. Both types of organizations benefit from these twoway exchanges of technical know-how and farmer feedback and they also strengthen the Digital Green network.



Identify the incentives for them to participate

The next phase of your digital intervention may rely heavily on strategic partnerships with the private sector, government or both. Identifying what partners might want from the relationship — and whether your needs are aligned — is critical.

For example, does your strategy rely on government procurement, distribution, and support for software, hardware, devices and connectivity? If yes, this is a big ask, and it's vital to identify and quantify the benefits. You may need to establish that your digital solution is more cost-effective than the alternatives and prove that it can reach scale and still be manageable and cost-effective. Alternatively, your strategy may rely on renegotiating partnerships with MNOs to reduce costs or get discounted pricing for voice calls or data. This will only succeed if you understand their business goals and appeal to them by offering a tangible benefit.

FOR MORE INFORMATION SEE:

- Business Model: STEP 3. IDENTIFY WHO IS GOING TO PAY FOR THE NEXT PHASE
- Solution Design: STEP 4. PLAN YOUR TECHNICAL DEVELOPMENT FOR SUSTAINABILITY AT SCALE

You may need to establish that your digital solution is more cost effective than the alternatives and prove that it can reach scale and still be manageable and cost effective.

Assess whether more resources are needed to manage a growing consortium of partners

While small programs regularly use core staff time to manage partners, rapidly expanding programs may require a dedicated individual or even a separate organization to coordinate the efforts of a growing consortium of partners. This can entail creating a project management office (PMO) to manage day-to-day interactions and coordinate partner activities during program implementation. For programs where ownership is being transitioned, this PMO may involve participation by the original owner, at least initially. A PMO can also play an important role in knowledge transfer between partners. The costs of managing more partners should be weighed against the benefit they bring in filling specific gaps in capacity and expertise. This will help you make strategic decisions about whether to bring on new partners or develop the capacity in-house.



BEYOND SCALE | Partner Relationships Module: Step 2 of 4



How to

- Read more about partnerships in digital development and the role of PMOs here
- View a go/no-go decision checklist used to assess the costs, risks and value of partnerships here



STEP 3 >>>>

UPDATE AGREEMENTS AND REVISE GOVERNANCE STRUCTURES

Review and renegotiate your contracts

Some digital development programs outgrow the agreements or contracts that were created when the programs first started. Service level agreements (SLAs) are a good example. You may not have signed SLAs with your technical partners at the pilot stage, or you might have agreed to slow response times to accommodate time zone differences or limited staff resources. Now that you're scaling or transitioning, you may be legally obligated by your MNO partners or government to sign stringent SLAs — which could, for example, reduce response times from 4 hours to 30 minutes. As a result, you'll either need to renegotiate the SLA with your existing partner or identify a new partner who's able to support your digital solution at scale. Some programs simply outgrow their partners, and must make tough decisions to release old partners and find new ones that better fit the next phase.

Some digital development programs outgrow the agreements or contracts that were created when the programs first started.

Clarify mutual goals and constraints with partners

Misalignment between partners' motivations can create challenges later. This is especially true for digital development projects, which often include NGOs, large private sector corporations (such as MNOs) and governments. Each of these stakeholder groups has different incentives for participating and metrics for success. Getting mutual clarity on these drivers and the limits around each organization's participation helps minimize the potential for future conflict and maximize the contribution each can make.



In practice | BBC Media Action

How we negotiated scalable pan-India agreements with six MNOs

We negotiated pan-India agreements with six MNOs, even though we only had funding to launch our mobile health services in one state. This is because we wanted to be ready to scale quickly if the services were successful.

We agreed the same, significantly reduced tariffs with all MNOs, which we knew our target audiences could afford, but would still cover MNOs' network costs. We also agreed on common short codes and MNO marketing commitments, including promotion via digital channels and thousands of top-up shops.

In exchange, MNOs retained most of the revenue. We split the remainder with our aggregator to help cover costs. The revenue was too small to motivate MNOs. Instead, they saw value in our plans to build sustained, meaningful relationships at scale with a yet unsaturated target market — i.e. rural women, supported by our digital track record and BBC brand.

MNOs dictated the structure of our agreements, which varied from one-to-one agreements, to tripartite agreements with our aggregator, to 'piggy backing' on our aggregator's existing MNO contracts. When it came time to scale, we signed addendums to our 'master' agreements, negotiating functional and commercial changes, but sticking to the same legal terms. This significantly reduced negotiating time.

Other examples

In the Philippines, the Department of Health and the Department of Science and Technology made progress on the implementation of a national digital health plan. This is when they signed a memorandum of understanding (MOU) to create a steering committee and technical working group with defined roles for each national agency. The agreement led to a health information exchange (HIE) being established to allow interoperability between the country's various digital health solutions. It has been cited by other countries in the region as a model for creating HIEs. See the MOU here.



If you're not ready to sign a formal contract with a new partner, you could agree to a **memorandum of understanding** (MoU) instead. MoUs spell out shared goals, the scope of work, roles and responsibilities and an agreed course of action. This can set the stage for negotiating a contract later.

Good governance documentation clearly defines each partner's commitments and roles and responsibilities, and describes the structure of the intervention.

Revise your governance structure

In the early stage of your intervention, you may have found that a simple, informal program structure allowed for flexibility and quick decisions. But as you move into the next phase, especially one involving an ownership transition, documenting roles and responsibilities is critical.

Good governance documentation clearly defines what each partner is committed to doing (based on MoUs and other agreements), defines the relationships between them, and clarifies authority, decision-making and issue resolution processes. Once you've defined and documented your governance structure, you could codify and communicate these responsibilities in a program charter to ensure that they are formally recognized and agreed.

Governance structures are often based on MoUs and contractual agreements. The roles and responsibilities they involve are often expressed in a RACI table. RACI stands for responsible, accountable, consulted and informed, and a RACI table depicts all the activities and roles in an organization or consortium. Once you've defined and documented your governance structure, codify and communicate these responsibilities in a program charter to ensure that they are formally recognized and agreed.

2 3 4 5

Other examples

Rwanda's digital health governance structure is typical of a multisector digital development initiative led by government. It includes a steering committee of ministerial-level representatives from relevant health and ICT bodies who guide strategic decision making, a technical working group to sort through technical challenges and make recommendations and an eHealth program management unit responsible for executing decisions and day-to-day implementation. Learn more about their governance structure here.

Watch Amajit Mukherjee from the International Center for Research on Women (IRCW) talk about strategies to engage government stakeholders and support ownership transition.



Listen to Annie Neo Parsons from Jembi Health Systems talk about setting up a structure to work with government partners here.

How to

- See a sample partnering agreement here and a project charter template here
- Learn more about give/get analysis here and about key value drivers and associated proof points for partnership with MNOs here
- Learn what goes into a detailed service level agreement (SLA) here
- View a practical guide to engaging with mobile operators on digital health here
- Find guidance on creating and supporting open, honest communication with partners here



A robust approach to governance can mean the difference between success and failure

Many challenges will arise on the path to scale and transition. Some of these will be internal — such as changing key staff and partners — and others will be external — such as new or disruptive technologies and competitors. Only by defining a clear governance structure and assigning specific roles to individual organizations can multi-partner programs overcome the inevitable roadblocks. Decision makers, reporting structures and escalation procedures must be defined and agreed upon with each partner. This example illustrates one such governance structure.





Documenting the roles and responsibilities of each entity in your governance structure (each box in the diagram here) in consultation with participating members ensures that each partner understands and accepts their responsibilities, and agrees to engage the human resources required to fulfill their commitment to the partnership. Governance documentation, which could be formalized as an MOU or a program charter, typically includes:

- Background: Why is the governance structure being created?
- Scope and purpose: What are the objectives of the program and scope of work?
- · Composition: Who is involved and what skills and experience do they have?
- · Roles and responsibilities: What are the specific functions of each partner?
- · Frequency of meetings: How often do the different governance bodies meet?





STEP 4 DDD

TRANSFER KNOWLEDGE TO YOUR PARTNERS

Develop knowledge transfer and capacity development plans

Capacity development and knowledge transfer is not just for staff. Partners both old and new need it too, especially when there is a transition of ownership. Implementing organizations have found it useful to agree to a knowledge transfer plan with new partners, including government departments. Knowledge transfer plans involve proactively sharing and discussing documentation with partners, preferably in a series of face-to-face workshops.

The expansion of some digital solutions may require significant new or refresher training for partners, such as mobile top-up shop owners, who are involved in marketing and selling the solution. Many implementers note that while the cost of training partners can equal or exceed that of training internal team members, it can reduce customer service costs by improving partners' ability to communicate effectively about the solution to end users. Involve partners in developing your capacity development plan and see which of their existing training structures you can tap into.

Note that careful consideration of knowledge transfer and capacity building plans is advisable in situations where your partner could eventually become your competitor.

Update the way you measure partner performance

Based on MoUs, contracts and implementation plans, each partner's performance including your own — will be measured against agreed deliverable milestones and established metrics. As your program goals evolve and your rollout plans change, these metrics are likely to change. It may be useful to hire an external consultancy or audit firm to review progress and provide objective feedback about program partnerships. It's often easier to share concerns and frustrations with a neutral, trusted external party than with a member of a partner consortium.

FOR MORE INFORMATION SEE:

Roll Out: STEP 1. BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE



In practice | BBC Media Action

Why a Program Management Unit (PMU) was established to support our national scale up

When we first developed our mobile health education services in India, we worked closely with state governments on strategy and messaging and training, but procured and delivered independently. This changed when we scaled to more states, where we successfully supported local governments in procurement, including contracting MNOs. This proved incredibly time consuming.

We learned that government is unlikely to prioritize scant resources for your project unless you walk the corridors of power every week. Government bureaucrats listen to a lot of NGO pitches, and know that NGOs come and go. We had to constantly engage to demonstrate seriousness and staying power.

Thus, when the Government of India decided to scale two of our mobile health education services nationally, we knew we needed a new governance structure. A project management unit (PMU) staffed by PricewaterhouseCoopers (PwC) was set up with support from the Bill & Melinda Gates Foundation to act as the single point of contact for the Ministry of Health, and to liaise between government and a consortium of partners lead by BBC Media Action.

PwC brought invaluable government procurement and relationship management experience to the PMU, which gave us more time to focus on scaling the services. Three months after the launch, PwC made their planned exit and we became the single point of contact for the Ministry.

Other examples

Watch Peter Benjamin from **Health Enabled** talk about how they support their partners.







© BBC Media Action

3 4 5

Refine mechanisms for partner feedback and communication

Just as communication and feedback mechanisms are important for staff members, they are also essential for your partners. Partnerships require active and predictable channels for communication.

A robust project plan will include a communications plan, which details the frequency of partner meetings or calls and includes templates for progress reports and agendas, responsibility for drafting agendas and taking and circulating minutes and which online collaboration tools will be used. Identifying a single point of contact within each organization is also vital. If in-person meetings will be required, you'll need to be clear about who is expected to pay for meeting and travel costs and the level of representation required of each partner.

FOR MORE INFORMATION SEE:

Roll Out: STEP 1. BUILD PROJECT MANAGEMENT FOUNDATIONS FOR SCALE

Other examples

It's important that all partners can articulate the shared goals and values of the program. Shared communication materials or assets can help with this. In Ethiopia, Vital Wave created a frequently asked questions (FAQ) document to help stakeholders in the Federal Ministry of Health communicate a shared vision for a digital system to manage national health indicators. See the FAQ here.

When training partners, **Digital Green** used to focus only on technical skills and capacity building on its video-enabled approach. They have since taken a more systems-based approach to transform extension programs from the inside out. In Ethiopia, for instance, the organization partnered with local agricultural universities to create a new curriculum at schools where agricultural extension workers are trained. This enabled a broader institutional impact that is more sustainable and replicable.

How to

- Read more about building and sustaining effective collaborations here
- See some digital tools for coordinating partnerships here

A robust project plan will include a communications plan, which details the frequency of partner meetings or calls and includes templates for progress reports and agendas, assignments for drafting agendas and taking and circulating minutes and a list of which online collaboration tools will be used.



RESOURCE ROLLUP

Who do you need?

Assessing your current partnerships and determining new partnership requirements will involve tapping into your organization's resident knowledge. You may need to have multiple rounds of discussion with current and potential partners. It also entails making smart use of outside advisors and experts. These people can provide unbiased perspectives about setting up partnerships, which will help your program scale instead of holding it back.

Activity	Resource type
Partner mapping	Account or Relationship Manager, Project Director
Contract assessment and negotiation	Project Director, Digital Director or Head of ICT, VP/Director of Operations, Legal counsel (contracted)
Governance structure revision	CEO/Executive Director, Project Director, Digital Director, Legal counsel (contracted)
Partner knowledge transfer and training	Product or Relationship Manager

Pro tips

- Get beyond the day-to-day with partners. When program implementation is in full swing, communication can end up limited to operational topics. Implementers say finding regular venues for strategic discussions is an ingredient to long-term success.
- **Don't bloat your governance structure.** It's tempting to make stakeholders feel valued by offering them a role in governance, but including too many organizations and people can lead to slow and convoluted decision-making processes. Advisory bodies can allow for inputs by all the partners involved without slowing down progress.
- Keep your partners on message. Making sure your partners have the right technical knowledge and strategic priorities is important, but so is ensuring they are aligned in how they communicate your program's value.



BEYOND SCALE | Partner Relationships Module: Resources

Key step	Referenced resources
1. ASSESS YOUR EXISTING PARTNERSHIPS	 Article: Building Your Partner Ecosystem Toolkit: Partnership Tools Article: Building Win-Win-Win Value Propositions Toolkit: Zambia Partnering Toolbook
2. IDENTIFY POTENTIAL NEW PARTNERS	 Case Study: MomConnect: Launching a National Digital Health Program in South Africa Paper: Partnerships in Development Practice (Multi-stakeholder Partnerships in ICT4D) Tool: Partnering Assessment Checklist
3. UPDATE AGREEMENTS AND REVISE GOVERNANCE STRUCTURES	 Example: Philippines MOU: Creation of Joint DOH-DOST National Governance Steering Committee and Technical Working Group on eHealth Toolkit: The Partnering Toolbook: An Essential Guide to Cross-Sector Partnering (Tool 3: Sample Partnering Agreement) Toolkit: Planning an Information Systems Project: A Toolkit for Public Health Managers (Annex 1: Project Charter) Report: Sustainable Financing for Mobile Health (Give/Get Analysis) Guide: A Practical Guide for Engaging with Mobile Network Operators in mHealth for Reproductive, Maternal, Newborn and Child Health (Value Drivers) Guide: How to Establish Service Level Agreements Guide: A Practical Guide for Engaging with Mobile Operators in mHealth for RMNCH Guide: Partnerships: Frameworks for Working Together
4. TRANSFER KNOWLEDGE TO YOUR PARTNERS	 Example: Ethiopia National Health Data Dictionary FAQ Research Brief: Building and Sustaining Effective Collaborations Tool: Technologies for Coordinating Partnerships



BEYOND SCALE | Partner Relationships Module: Glossary

Term	Definition
Aggregator Source	An organization that acts as a middleman between application and content providers, and mobile carriers. Provides message traffic throughput to multiple wireless operators or other aggregators; provides mobile initiative campaign oversight, and administration, as well as billing services.
Business model Source	A plan for the successful operation of a business which identifies sources of revenue, intended customer base, products and details of financing.
Codify Source	To establish or express in a conventional or standard form through documentation.
Digital channels	The use of digital technology to market, sell and distribute products and services.
Distribution Source	The movement of goods and services from the source right up to the final customer, consumer or user.
Fast-moving consumer goods companies Source	Firms that sell non-durable, relatively low-cost consumer products.
Gap analysis Source	A process comparing an organization's actual performance with its expected performance used to determine whether it is meeting expectations and using its resources effectively.
Governance structure	A defined management framework in an organization within which decisions are made.
Health information exchange (HIE)	A mechanism for facilitating the interoperability of data systems and the sharing of data.
Landscape analysis	The process of gathering and analyzing information related to the environment in which a product, service or solution operates.



BEYOND SCALE | Partner Relationships Module: Glossary

Term	Definition
Memorandum of understanding (MOU) Source	A nonbinding agreement between two or more parties outlining the terms and details of understandings or partnerships, including each parties' requirements and responsibilities. An MOU is often the first stage in the formation of a formal contract.
Program charter	A document articulating and delineating the goals of a program, communication processes and the roles and responsibilities of participating partners.
Project management office (PMO) Source	A group or department within an organization that defines and maintains standards for project management within the organization. The PMO strives to standardize and introduce economies of repetition in the execution of projects. Sometimes called a project management unit.
Public filings	A financial statement or other formal document submitted to a government authority.
RACI table	A matrix of all the activities or decision making authorities undertaken in an organization or consortium lined up with the individuals and partners involved in them.
Request for information (RFI)	A process that uses a standardized format for collecting information from possible vendors or suppliers.
Request for proposal (RFP) or Request for quote (RFQ)	A document used to solicit detailed proposals or bids from vendors or suppliers.
Service level agreements (SLAs) Source	A contract between a service provider (either internal or external) and an end user that defines the level of service expected from the service provider. SLAs are output-based specifically defining what the customer will receive. SLAs do not define how the service is provided or delivered. The metrics that define levels of service should aim to guarantee: a description of the service being provided, reliability, responsiveness, procedure for reporting problems, monitoring and reporting service level, consequences for not meeting service obligations and escape clauses or constraints.



BEYOND SCALE | Partner Relationships Module: Glossary

Term	Definition
Short code Source	A short digital sequence, significantly shorter than a telephone number, that can send and receive SMS and MMS to and from mobile phones. Users send a message to a short code to receive a canned response such as a web link. Each country has its own system.
Steering committee Source	A committee that decides the priorities or order of business of an organization and manages the general course of its operation.
Tariffs Source	The fee charged by a telecommunications operator to its customers for use of mobile services.
Technical working group	A group of subject matter experts working together to achieve specified goals. The group is domain specific and focused on discussion or activity around a specific technical area.
Top-up shop	A business where an individual can add value to their mobile phone package.
Tripartite agreements Source	An agreement between three parties.
Value-added services Source	A telecommunications industry term for non-core services, such as all services beyond standard voice calls, SMS and data.

BEYOND SCALE | Partner Relationships Module







