5

Implementation Phase

The Design Process
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Class 5
Implementation Phase

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Overview of Implementation Phase

The Implementation phase is about understanding how to bring your solution to life, and to market in the real world. In the end, you’ll know that your solution will be a success because you’ve kept the very people you’re looking to serve at the heart of the process.

This class will give you the tools necessary to consider how you would build partnerships, refine your business model, pilot your idea, and eventually get your idea out there—if you were to truly implement your idea, that is!
Step 1: Understand Your Target

Before implementing, you’ll want to understand what your solution will mean to both the people implementing it and to those you’re designing for. Everyone wants a revolutionary idea, but long-term success might come from incremental change. Also, think about the capacity of the implementing group; you’ll want a solution that they can actually carry out.

**IMPLEMENTATION**

*The smallest variation has been spaced specifically for legibility*

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**Innovation 2x2**

This exercise is a quick and visual way to understand just how difficult your design solutions might be to implement. This exercise will help you identify whether your solutions are incremental, evolutionary, or revolutionary and whether your solutions extend, adapt, or create a totally new offering. You’ll also clarify whether your solutions are targeted at your current user group or whether it expands to a new group of users. By seeing your solutions in relation to each other, you’ll quickly ascertain which ones your organization has the means, manpower, and capacity to undertake.

**HERE’S HOW TO MAKE YOUR MATRIX**

- **Draw Your 2x2**: On a large sheet of paper, draw your grid—the vertical axis represents the novelty of your offering and the horizontal axis represents its users. Totally new offerings land above the horizontal axis and existing offerings land below. An idea aimed at new users falls to the right of the vertical axis and one that affects existing users falls to the left.

- **Write Your Solutions on Post-its**: Place revolutionary new ideas that will attract new users in the top right quadrant. Incremental ideas that offer small builds on existing services will hit below the horizontal axis.

- **Assess Your Distribution**: Look at the spread of your solutions from incremental to revolutionary. Are there gaps in your portfolio of solutions? Are parts of the matrix blank and others full? If so, you may want to go back to brainstorming in order to develop solutions that will intentionally fill that gap.

- **What’s Your Matrix Telling You?**: Lots of organizations say that they’re interested in revolutionary thinking, but often, incremental change can have the greatest chance for big impact. Think hard about what your organization can realistically achieve and what will benefit your constituents most.

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**New Offerings**

**Existing Offerings**

**New Users**

**Existing Users**

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**EVOLUTIONARY**

**REVOLUTIONARY**

**INCREMENTAL**

**EVOLUTIONARY**

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**This Gets You**

A snapshot of where your solution falls from baby steps to groundbreaking innovation.

**Keep in Mind**

One key to success is finding the right balance between where your solutions fall on the 2x2 and the capacity of the people implementing.
Step 2: Create an Action Plan

Devising an innovative solution and putting it into practice are two different propositions. Creating a plan for implementing will help you understand what will be required to get your solution out in the world and where your organization will have to seek help.

**Make a Roadmap**
Roadmapping is a chance to gather the key stakeholders in your project and collectively figure out a timeline, determine who is responsible for which elements of the project, and establish key milestones. Sometimes it’s helpful to print out a big calendar for the next year or 18 months and use it to map out what needs to happen when—key dates such as a Pilot launch in addition to tasks that need to happen in order to support these milestones, such as manufacturing start and end dates.

**Build Partnerships**
As you move through the Implementation phase you may realize that you'll need to rely on a variety of partners. For example, you'll identify potential funding partners when you Develop a Funding Strategy below or craft your Sustainable Revenue model (Class 4, Step 5). The key idea here is identifying the kinds of partners you'll need, and starting to build relationships with them.

**Staff Your Project**
The methodology here is pretty similar to how you first build a team in the Inspiration phase, only this time you'll want to be far more targeted. Whereas a multi-disciplinary team is great during design research for arriving at unexpected ideas and novel solutions, in the Implementation phase you'll be looking for specialized know-how, technical capacity, outside partners, and funding. Consider the needs of your project, and evaluate if now's the time for some team members to roll off your project and for others to roll on.

**Develop a Funding Strategy**
A funding strategy will get you the money you need to get your solution out into the world. Get any key funding partners together with your design team and brainstorm the best ways to get your project off the ground. This strategy may be different than your ultimate sustainable revenue approach, so focus on your short-term financial approach here.

**Create a Pitch**
At this point in the project, it will become more and more crucial to be able to communicate your idea—how it works, why it counts, and who it benefits. And in the process of making a pitch, you'll clarify the key elements of your idea and refine how you talk about them. Keep in mind the different types of people you may talk to—from banks to potential customers—and make the appropriate changes based on your target listeners.

**This Gets You**
A better sense of what it will take to make your idea work in a real-world context.

**Keep in Mind**
The more diligent and intentional you are about finding partners, staff, and a strategy that are the right fit, the more you'll set your idea up for success.
Asili, a community-owned social enterprise, was designed and launched to bring improved health, water, nutrition, and agriculture to the DRC.

To ensure a successful launch and sustainable model, significant time went into defining the roles of Asili’s staff members and what skills were key.

This roadmap of Asili’s launch plan provides an overview of the next five years where Asili is projected to expand its offerings to include energy, education, and sanitation.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Systems</td>
<td>2</td>
</tr>
<tr>
<td>Health Clinics</td>
<td>2</td>
</tr>
<tr>
<td>Nutrition Programs</td>
<td>2</td>
</tr>
</tbody>
</table>

At the end of three years, Asili is projected to be operating within five communities. This is another roadmap that shows which phases of the social enterprise will be rolled out in different communities.

For Asili to operate as planned, the team needed to plot out where the funding gap was and when the social enterprise model would break even.
Step 3: Launch Your Solution

Take your idea to the next level by testing it in the marketplace. A Live Prototype or a Pilot are important tools designed to test the desirability, feasibility, and viability of your idea with customers at a small scale and on a limited budget. Here is a broad overview of what to keep in mind when first testing an idea in the marketplace.

Run a Live Prototype
Live prototyping is one of the most powerful ways to test your solution in a real marketplace context. Until now, your prototypes have been rough, doing only enough to convey the idea you wanted to test. Consider a Live Prototype to be a stress test for your solution in real-world conditions. It can run from a few days to a few weeks and will help you understand the feasibility and viability of your idea.

Define What to Test
As with prototyping during the Ideation phase, you’ll want to determine what it is you want to test in your Live Prototype.

Here are a few places to start:

- Pricing—How much will you charge for your product or service? Might this price vary from community to community? How do these prices compare to your competitors?

- Payment options—How will customers pay for your product or service? Up-front? Installments? Might they want a subscription?

- Incentives—Who are your employees and what are their incentives for making your product or service a success? Do they work on commission?

- Customer retention—Are repeat customers essential for your business model? What incentives might you provide to keep them?

- Customer experience—Can you experiment with different ways that customers might interact with your product or service during different touchpoints of your experience map created in the Class 3 Workshop.

Go to Pilot
If a Live Prototype is a quick look at how your solution behaves in the marketplace, a Pilot is a sustained engagement. Pilots can last months and will fully expose your solution to market forces. At this point you’re not testing just an idea, but rather you’re testing an entire system. Ideally you’ll have run a few Live Prototypes before going to Pilot so that some of the kinks are worked out.

During a Pilot you’ll fully execute on your idea finding out if it truly works the way you envisioned by running it with all the staff, space, and resources necessary. You’ll learn if your idea really is desirable, viable, and feasible, and what it might look like to do it at scale.
An IDEO.org team designing a new teen experience for reproductive health services live prototyped a colorful, teen-friendly clinic in Lusaka, Zambia. The design team tested if their “teen ambassadors” outreach strategy would effectively spread the word and get teens in the door. Once there, would the space resonate with teens?

PROTOTYPING CHEAT SHEET

We know we’ve thrown a lot of testing techniques your way in the past several weeks. Here’s a quick way to think about the differences between a Rapid Prototype, a Live Prototype, and a Pilot.

Rapid Prototype

**Answers the Question:**
“How well does one particular piece of the solution work and does it resonate with the people you’re designing for?”

**Key Features:**
- Low fidelity
- May test a small piece of the whole idea
- Likely not market-ready

Live Prototype

**Answers the Question:**
“How well does this solution resonate with the market?”

**Key Features:**
- Moderate fidelity
- Tests multiple pieces of the idea as they interact together
- Appears to be market-ready

Pilot

**Answers the Question:**
“Is this solution as a whole feasible and viable in the marketplace?”

**Key Features:**
- High fidelity
- Tests the whole idea
- Actually is market-ready
Step 4: Keep Getting Feedback and Iterating

Even though your idea is now as close to market as it’s ever been, you still need the input of the people you’re designing for. With their feedback, continue iterating and refining your concept so that it best meets their needs.

**Keep Getting Feedback**
Don’t lose sight of the iterative approach that you’ve taken so far. As counterintuitive as it might seem, your solution is never truly finished. Even when you’ve gone to market you can always improve it.

Gathering feedback from the people you’re designing for is a never-ending process and will be critical as you keep pushing your idea forward. As you run Live Prototypes, pilot your idea, and measure and evaluate your work, you’ll want to have team members dedicated to getting feedback from key partners and the people you’re looking to serve.

**Include Key Stakeholders**
Convening the right group of stakeholders at once can bring up a lot of feedback in a single session.

Make sure to capture feedback in your notebook and share back with the entire design team. You can do this by using a similar approach as you used when making sense of information in synthesis. Take a look back at methods from the Ideation phase, such as Download Your Learnings and Share Inspiring Stories (Class 3, Step 1).

**Keep Iterating**
As you’ve likely noticed by this point, iteration and real-world feedback is the name of the game in human-centered design. Though your solution is now nearly ready to get out into the world, you need to keep iterating. If you need a reminder of iteration as a core mindset, take a look back at the Class 1 Mindsets video—Iterate, Iterate, Iterate.

What are the ways in which your solution could be just a little bit better? Can you tweak your communication strategy, maybe you’ll need to evolve your revenue plans, or perhaps your distribution plan needs a tweak. As soon as you get your solution out into the world start to notice what could be better and assess how you can make it so. By continuing to iterate, solicit feedback, and build those learnings back into your solution you’ll get further and further toward having a huge impact.
Step 5: Scale Towards Impact

Your goal has always been to have big impact, and that’s what human-centered design is all about—providing effective solutions for the people you’re trying to serve. It’s important to sit down with your team and map out what success looks like and how to get there.

This Gets You
A well defined goal to be working towards and a look at all of the things that need to happen to help you reach this goal.

Keep in Mind
Success and impact will look different for every solution. Though you’ll want to make sure everyone is on board and working towards the same goal, you should check in periodically with your team to be sure your goal is still achieving the intended impact.

Define Success
In the course of the Implementation phase you’ll think about staffing, funding, and mapping out your project timeline. This is a great opportunity to figure out what success looks like. Determine important milestones in the life of your solution, and think in terms of a variety of time horizons. What is success in the next two months, in the next year, in five years?

Sustainable Revenue
A funding strategy will get you through launch, but you’ll need a long term revenue strategy to have maximum impact and maintain a sustainable solution. This is the time to sit down with your design team and key partners and stakeholders to assess if you’ve got the right revenue strategy or if your thinking needs an update.

Here are some points to address:

• If you’re selling a product, how much of it do you need to sell to hit your revenue goals? How can you keep customers coming back? How much should your product cost? Will you need to introduce new products over time?

• Think about scaling your project. In five years, will you be operating in more than one location? Will you have multiple products? Is this first offer part of a family of potential goods or services? How can you grow your long-term revenue plans alongside your solution?

Measure and Evaluate
Throughout the design process you’ve constantly been learning, evaluating, and improving your solution. And now that you’re on the verge of getting it out into the world, you’ll need a plan to find out if you’re having the impact that you want. There are lots of ways to measure and evaluate your solution, the key is to understand what approach is right for you. Sometimes it’s easy—either your solution makes money or it doesn’t. But if you’re trying to change a community’s behavior or increase the adoption of a service, you may need a more nuanced approach. Keep in mind, it may take years to truly understand the impact of your solution.
SCALING STRATEGIES TO CONSIDER

Even in the early days of your solution, you’ve probably been thinking about how you would scale your potential ideas. But no two businesses or programs are alike. Here are a few ways to jumpstart your thinking about how you could expand the reach of your solution.

BOOTSTRAPPING

What is it?
Raising capital to expand and replicate your pilot model without external partners.

When does it make sense?
Bootstrapping scaling can be very capital- and resource-intensive, but can make sense if working with local social entrepreneurs or other community partners proves unfeasible. Alternatively, bootstrapping can make sense if your idea, when piloted, seems so promising that it can potentially be a lucrative and investor-friendly business.

+ Pros
• Full control over brand and service
• Ability to make sweeping changes
• Doesn’t rely heavily on willingness and abilities of external partners

- Cons
• Capital-intensive
• Large staff to hire and manage
• High risk
• Slow growth
• Potentially in competition with local partners, instead of collaboration

FRANCHISING

What is it?
Selling or licensing a business package to entrepreneurs consisting of a fully branded, ready-to-run social enterprise. Entrepreneurs might pay a franchise fee to use your idea and branded materials, and would maintain a salesforce and handle all operations.

When does it make sense?
Franchising works well if there are other social entrepreneurs who are interested in your idea and would be in a position to run their own sales and operations.

+ Pros
• Moderate control over brand and service
• Supports local businesses
• Less capital-intensive than bootstrap scaling

- Cons
• Difficult to maintain quality and consistency
• Relies on willingness and abilities of other social entrepreneurs

INTEGRATION

What is it?
Just like you looked for partners to help launch your pilot, sometimes the key to scaling might be combining forces with an existing social enterprise, government program, or nonprofit.

When does it make sense?
Integration works best when the best route to scale isn’t necessarily keeping your product or service as an independent business, or when you’ve identified how your design might complement or leverage the offers of already existing organizations, products, or services. Perhaps a community organization could implement it more effectively at scale as a new program? Or an existing social enterprise could add it as a new product line?

+ Pros
• High potential for impact
• Much less capital intensive
• Supports local businesses or community organizations

- Cons
• Relies on willingness and abilities of external partners
• Potential loss of control
• Difficult to maintain quality and consistency
Case Study: SmartLife
Designing a Scalable Water and Hygiene Business

In recent years, Nairobi, Kenya has become an exciting hub for technology and entrepreneurship, with high-speed Internet connectivity linking the city to a global innovation network. However, Nairobi is not immune to the challenges that so many developing countries share. In Kenya, only 61 percent of people have access to clean drinking water; 84 percent of preschool-aged children are vitamin A-deficient; and diarrheal diseases are among the top 10 causes of morbidity and mortality.

Though numerous organizations are working to combat these crises, solutions are often siloed, inefficient, and unsustainable. IDEO.org, along with partners Water and Sanitation for the Urban Poor (WSUP), Global Alliance for Improved Nutrition (GAIN), Aqua for All, and Unilever, saw an opportunity to create a social enterprise that would improve access to clean water, personal care products, and health education.
The Outcome

After an intensive prototyping period on the ground in Nairobi, the team launched SmartLife, a scalable retail business and brand that offer clean water and health and hygiene products. SmartLife is now running successfully in several sites around the city.

Inspiration

An eight-week sprint of rapid iteration and real-time customer feedback, the design team hit the ground running on its trip to Nairobi. The accelerated timeline necessitated a fascinating flip of how we typically run our design projects. Instead of synthesizing its ideas and developing solutions after a trip to the field, the team leaned on its existing knowledge of the problems facing Nairobi’s poor and then dreamed up a handful of entrepreneurial ideas that they could get into the hands of low-income Kenyans to test.

In the weeks leading up to the trip, they came up with three business concepts that they could prototype on the ground. One idea was Live Well, a dummy brand with a logo and brand collateral that could be used to set up a business prototype on arrival in Kenya.

Ideation

Half of the team continued conducting interviews and other research, talking to locals about their water and health needs, market value, and seasonal variations. The other half quickly pulled together their prototype business, and with the help of a translator, they launched a one-day test run.

The team had hired a local kiosk vendor and cart operator to wear branded apparel and sell water in jerry cans that had been adorned with Live Well stickers. They sent their translator around as a door-to-door salesperson, selling hygiene products and talking to people about health and sanitation. The translator came back with key learnings that would help inspire a subsequent version of the business. “It was completely chaotic but fertile with learning experience,” recalls project lead Robin Bigio. After half a day, the team already learned enough to prepare the next rev of Live Well.

Among the challenges, they realized water needed to be ordered ahead to reduce the physical demand of transporting unsold cans and to enable optimization of the delivery route. On the positive side, the team found that the strong branding instantly inspired trust. Nobody questioned
that it was good water and multiple customer touch points and physical, stable sites gave Live Well credibility.

Three days later, the team launched the next version of the business in a new location in town, changing the name from Live Well to SmartLife. This time customers actually placed orders at a kiosk and made a payment for water delivery. “People were willing to give money up front for service that would come the next day, which is unheard of in Kenya,” says Bigio, “We discovered that there was an aspirational side to this business. People were excited about having a great source of drinking water.”

When the market testing was complete, the team visited each of the customers who’d paid ahead to explain that the business did not yet exist, but was coming soon. They refunded the down payments and gave out cans of clean water for their participation.

IMPLEMENTATION

Upon returning to San Francisco, the team worked on revising the brand and business model to account for logistical factors such as how much water could be processed and transported, how much space it would require, pricing strategies, retail design, and educational materials. Working at a breakneck pace, the IDEO.org team delivered a comprehensive design concept to its partners, along with strategies, brands, and business models.

WSUP, GAIN, Aqua for All, and Unilever took all of this information into account when they launched the SmartLife Pilot, a critical part of the Implementation phase, and a chance to test a solution against real live market forces. Thanks to relentless prototyping, rapid iteration, and the integration of customer feedback from the design team, SmartLife’s pilot was a hit and led to launch.

By the time the design team wrapped up their field visits, the versioning process had led them to a well-defined business plan and, most importantly, had helped them establish trust from the market they would be serving.

Because so much had been sorted out during the prototyping phase, SmartLife was able to use the Pilot to test only a few high-fidelity versions of the service, all of which had a great shot at working. As with any element of the human-centered design process though, Pilots still afford crucial moments to test, iterate, and learn.
Partnering with the Rockefeller Foundation, IDEO.org engaged in a 16-week project to better understand and identify opportunity for change surrounding the issue of post-harvest food spoilage in Africa. The team travelled to both Senegal and Kenya to explore the agricultural value chain and gained a strong understanding of the behaviors of rural, smallholder farmers—ranging from unstable to transitional to fully stable farmers. When considering opportunities in a real market context, the design team spent time Live Prototyping business solutions to reduce post-harvest loss.

While building out and testing our concepts in Thiess, Senegal, we were introduced to a group of five women. This group had tried to start a juice operation using fruit that would otherwise spoil with 35 women last year, but it failed for a variety of reasons.

In speaking with them about using market-based solutions for reducing food spoilage, they expressed knowledge of what they had learned from their mistakes the first time around and an interest to try it again. So we decided to test the solution and give the group of five women some seed capital to start the project again.

This time they elected to try a smaller group and to run their operation as a business so they could share the profit. We gave the women 10,000 CFA (~$20 USD) and we told them they needed to make all decisions as a group. We also asked them to document what the money was used for and keep a journal about what happened. Within four days, the group bought the raw materials they needed, secured a space to sell from, set up a refrigerator and packaging operation, and had started to generate a profit!

The group chose to do the project in a small group of five, which allowed them to manage decisions. They all knew each other and had a high level of trust for one another. They carefully monitored the composition of the juice—last time they used too much sugar so they were not making a profit with each packet sold. Finally, when they were doing the juice in a large group, the profits were fed back to the organization, and the individuals were never paid for their efforts. With the current business, they know they will profit, so they are giving it their all.

We have noticed that with farmers, many times when a solution fails, they do not try again. By removing the initial cash outlay for these women with just $20, we were able to show them that there are multiple ways to process their spoiling fruit, and that they could iterate and learn from past mistakes.
Reflection on the Process

As part of the Class 5 Workshop, you’ll get a chance to reflect as a group on team dynamics, working styles, and what it was like to collaborate as designers. However, take some time here in the quiet of your house, apartment, or office, to reflect personally on what you liked or didn’t like about the human-centered design process and course.

What was it like to work as a design team? What was most inspiring? What was most frustrating?


What were the most successful aspects of the course for you? What were the weakest parts of the course? How Might We improve the course for next time?
You likely felt more comfortable during some parts of the human-centered design process than others. This is entirely normal. Think back over the last four classes. Which areas felt most natural? Where did you struggle? Why? For each phase in the human-centered design process (Inspiration, Ideation, and Implementation) mark where you fall on the axis between “I struggled” and “I excelled.” Below that, write a few sentences about why.

### Inspiration

**I struggled**  
**I excelled**

**Why?** What was your biggest “aha” moment during this phase?

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### Ideation: Synthesis

**I struggled**  
**I excelled**

**Why?** What was your biggest “aha” moment during this phase?

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### Ideation: Prototyping

**I struggled**  
**I excelled**

**Why?** What was your biggest “aha” moment during this phase?

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### Implementation

**I struggled**  
**I excelled**

**Why?** What was your biggest “aha” moment during this phase?