

# ALL ABOUT PROJECTS

- City of York Council's guide to project management -

# DISCOVERY PHASE

# **All About Projects**

A step-by-step approach



## Discovery

**You are at the beginning of an exciting journey!** This is your opportunity to take stock, look at what we are doing and have some interesting, dynamic conversations with your customers and colleagues. Residents are our main focus so enjoy the experience of involving them in your review and design work. You will also feel the benefit of meeting and talking with other colleagues who look after the same customers as you – learning and sharing knowledge with each other is fun! This guide contains useful tools and information to talk you through the process step by step. To help describe how we can co-design the delivery of our services, we have included a case study from a review in the CYC Housing Service, as well as other examples.



**Pre-Project** Working with colleagues, your ideas, prototypes and business case are developed and put forward for approval.



**Initiate** Now your project has been given the go-ahead, you will add the next level of detail to your business case and set the controls for its ongoing management.



## Plan

Give your project every chance of success by mapping out how you will achieve it and briefing stakeholders.



## Implement

Time to deliver your well-developed plans and go live with a new-look service.



## Close

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# Discovery Phase

## Objectives and Outcomes

### Objectives

This is the phase when you will gain a thorough understanding of how things work at the moment and begin to identify where things could be done differently. New ideas about how things could be done in the future will begin to emerge with the help of user stories and views, experience and perspectives from colleagues and other stakeholders/partners along with data and information we already hold. You will continue to learn and refine ideas in this way throughout the life of the project so that you end up with the best outcome possible.

### Outcomes

The internal and external context this provides helps to refine initial ideas and assumptions before co-creating prototypes of potential solutions.

- In taking an open and collaborative approach you will develop a common understanding of what the current state of the service is and what, if any, change is required before you ask for resources. Half day workshop with project team to pull together all of the initial information you have gathered
- clear understanding of the current service
- a clearly-defined problem based on user needs
- co-created solutions for testing
- stakeholder engagement and buy-in

# Introduction

## Discovery Phase principles

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## Case Study: [Choice Based Lettings](#)

This case study will help you to understand the ongoing Discovery Phase process with practical examples. You will find links to specific stages of the review process within the guide.

**Where:** Housing Department – City of York Council

In early 2015 York housing managers commissioned a review of the North Yorkshire Home Choice (NYHC) as part of their commitment to continuous service improvement. NYHC is a choice based lettings system that City of York Council and ten other social housing providers across North Yorkshire use to allocate properties. York is an area of high housing need with a significant mismatch between housing demand and supply.

**Outcome:** The review has taken an approach which has analysed existing systems and processes, mapped the customer journey and engaged with service users, both internal and external. The process of improvement has been led and developed by frontline staff and managers with the result of the co-design of significant ‘quick wins’ and enough understanding of the service to herald a potential longer term strategy for future.

The engagement and participation of customers and staff has been key in to the success of the review which has produced clear analysis and a robust evidence base for the development of change.

Other examples at All About Us blog:

- [Clarence Gardens](#) project, Public Realm and Transformation (Iain Dunn and Mora Scaife)
- [“The muda glasses”](#) approach at Housing Services (Becky Ward and Paul McCabe)
- The new [CYC website project](#), Customer Services and ICT (Eilidh Carricker and Paula Wilkinson)

## How We Reshape and Design Services

Understanding customer needs, engagement and collaboration in designing for the future is a creative and exciting approach to problem solving and a key principle of the All About Projects process. It's a process that starts with your users, the people you are designing for, and ends with solution ideas that are tailored to meet their needs. This approach is all about building a deep understanding with your customers (external and internal) and designing for and with them; generating lots of ideas; building up early stage models (prototypes) and testing those ideas; and sharing what you've create with the people you are designing for. Then, you'll be ready to bring your refined ideas or models through for approval and finally, implementation.

## What Type Of Things Can Be Co-Designed?..

... **Everything!** The Discovery Phase design approach is based on People-Centred and continual improvement principles and methodology. The methodologies can be used across industries and sectors to approach any number of challenges—from product and service design to space or systems design, to name just a few.



### Products

When people think of design, they often first think about expensive, stylish products. But thoughtful product design is just as important in social innovation. Not only are all people deserving of well-designed products, but challenges that arise when there are limited resources, services, or infrastructure require new approaches and elegant solutions.

*How might we design a cooker that reduces the amount of smoke inhaled by a person while cooking?*

*How might we build an irrigation pump that can run without the electricity grid?*

*How might we design a toilet for families living in areas with no sanitation infrastructure?*



### Services

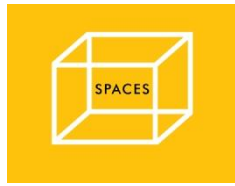
For a service to be effective, it needs to be Considered from end-to-end: from how it's advertised to how it's delivered. For a service to have the desired impact, it's essential to gain a deep understanding of the people you will be serving—not only what they need and desire, but what limitations they face, what motivates them, and what's important to them.

*How might we redesign the school lunch program for an entire city while providing for differences in individual schools?*

*How might we design a system linking social entrepreneurs from around the world?*

*How might we redesign a banking system for low-income citizens who have limited knowledge of banks?*





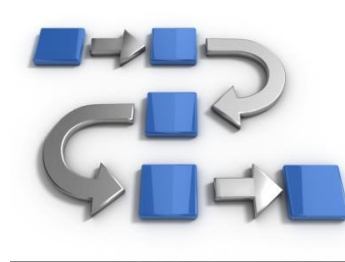
## Spaces

Physical environments give people signals about how to behave and influence how they feel. By rethinking the design of hospitals, classrooms, public transportation, banks, libraries, and more, we can create new experiences and interactions in these spaces. Human-centred design can help make the emotional parts of a space as important as the functional.

*How might we design hospital waiting rooms to mitigate the transmission of airborne diseases?*

*How might we redesign the common areas of a community housing structure to encourage connecting and cooperation among neighbours?*

*How might we improve the experience for first time visitors to our customer service centre?*



## Systems

Designing systems is about balancing the complexity of many different stakeholder needs with the needs of the social enterprise. For example, if you were designing a new type of school, there are the needs of the students, parents, staff and faculty, community, and perhaps investors. Systems design often involves setting high-level strategy such as stating visions, priorities, policies, and key communications around these ideas.

*How might we redesign the school lunch program for an entire city while providing for differences in individual schools?*

*How might we design a system linking social entrepreneurs from around the world?*

*How might we redesign a banking system for low-income citizens who have limited knowledge of banks?*

## The Discovery Phase Process

The Discovery Phase of AAP has three stages —Research (thoroughly understanding how we currently do things and what our customers think) , Problem Framing (learning from customers, colleagues, other stakeholders, other organisations) and Ideation and Prototyping (bringing together ideas, co-designing and refining service processes and delivery models ). In the end, you will know that your solution will be a success because you've kept the people you are looking to serve at the heart of the process.

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In the Research stage you will learn directly from your users and customers as you immerse yourself in their lives and come to deeply understand their needs. You will also learn from the people who are delivering the service now and use their expertise to get a thorough understanding of how the work works.

In the Problem Framing stage you will make sense of what you learned, identify opportunities for design, and in the Ideation stage you will develop potential solutions i.e. prototypes.

You will learn about what works well, what doesn't work so well and be able to identify things that could be done differently in order to improve the service delivery and customer experience. Using data about the existing service, the input from service users and other stakeholders, you will be able to redesign services, system processes and service delivery models in an effective collaborative way.

During the process you will find yourself moving backwards and forwards between making practical observations about the information you are gathering and being allowed to think 'outside the box' taking inspiration from the people you are working with to explore new and sometimes radical options. This is the exciting process of refining and developing ideas which will grow into options to take forward to the Full Business Case. We call it diverging and converging. You will diverge and converge a few times, and with each new cycle you will come closer and closer to the solution that is best suited for the people you are designing for.

## RESEARCH

### I have a challenge

How do I get started?  
How do I conduct the research?  
How do I stay people-centred?

## PROBLEM FRAMING

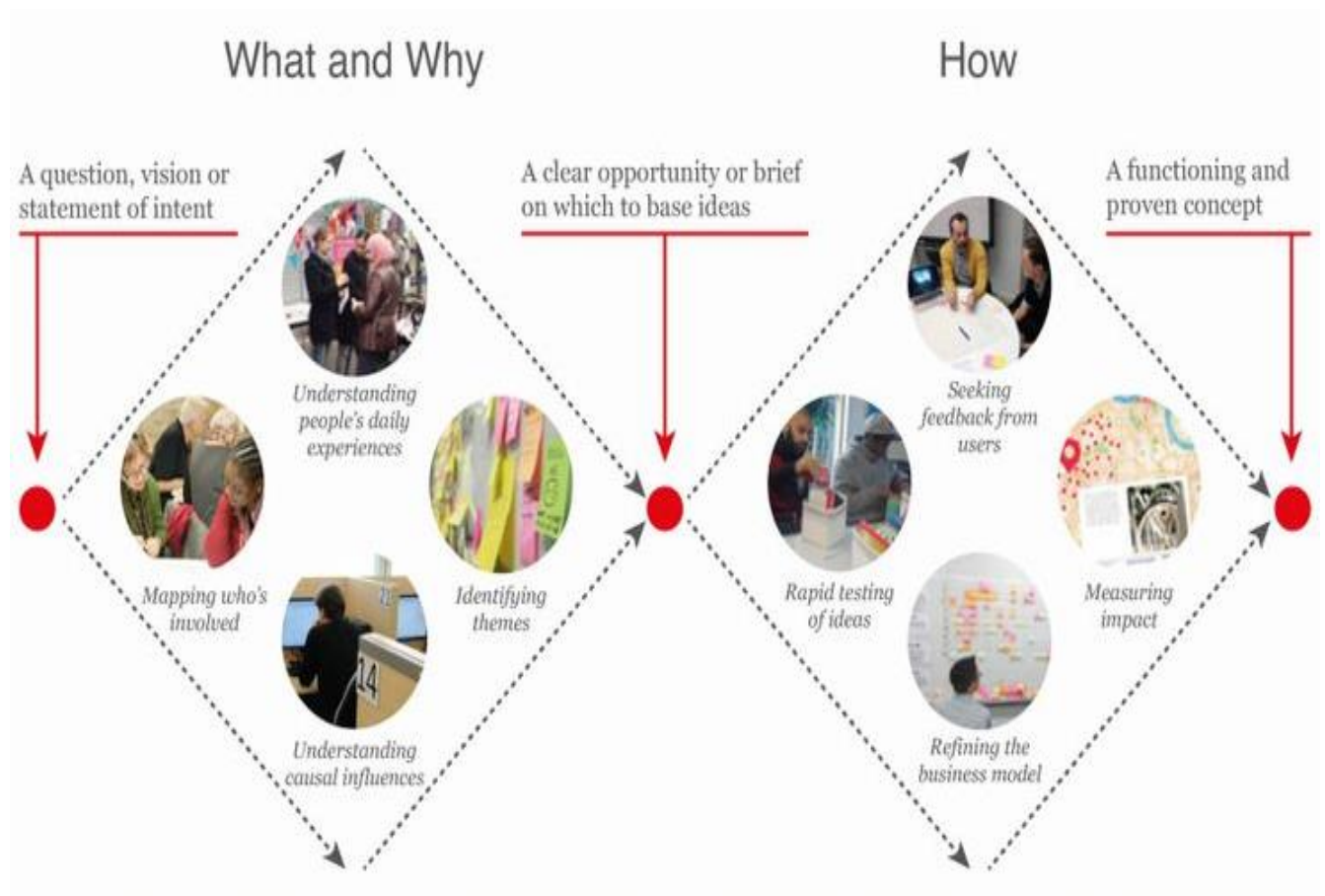
### I have an opportunity to design

How do I interpret what I've learned?

## IDEATION AND PROTOTYPING

### I have an innovative solution

How do I turn my insights into tangible ideas?  
How do I make a prototype?



# How We Think!

Working in this collaborative way is as much about your head as your hands. These Mindsets uncover the philosophy behind our approach to creative problem solving, and show that how you think about design directly affects whether you will arrive at innovative, impactful solutions. Spend some time watching these seven Mindsets videos from people involved in the Case Study “Choice Based Lettings”.

## Learn from Failure

“Don’t think of it as failure, think of it as designing experiments through which you’re going to learn.”

Failure is an incredibly powerful tool for learning. Designing experiments, prototypes, and interactions and testing them is at the heart of human-centered design. So is an understanding that not all of them are going to work. As we seek to solve big problems, we’re bound to fail. But if we adopt the right mindset, we’ll inevitably learn something from that failure.

## Make It

“You’re taking risk out of the process by making something simple first. And you always learn lessons from it.”

As human-centered designers, we make because we believe in the power of tangibility and we know that making an idea real is a fantastic way to think it through. When the goal is to get impactful solutions out into the world you can’t stay in the realm of theory. You have to make your ideas real.

## Creative Confidence

“Creative confidence is the notion that you have big ideas, and that you have the ability to act on them.”

Anyone can approach the world like a designer. Often all it takes to unlock that potential as a dynamic problem solver is creative confidence. Creative confidence is the belief that everyone is creative, and that creativity isn’t the capacity to draw or compose or sculpt, but a way of approaching the world.

## Empathy

“I can’t come up with any new ideas if all I do is exist in my own life.”

Empathy is the capacity to step into other people’s shoes, to understand their lives, and start to solve problems from their perspectives. Human-centered design is premised on empathy, on the idea that the people you’re designing for are your roadmap to innovative solutions. All you have to do is empathize, understand them, and bring them along with you in the design process.

## Embrace Ambiguity

“We may not know what that answer is, but we know that we have to give ourselves permission to explore.”

Human-centered designers always start from the place of not knowing the answer to the problem they’re looking to solve. And though that’s not particularly comfortable, it allows us to open up creatively, to pursue lots of different ideas, and to arrive at unexpected solutions. Embracing ambiguity allows us to give ourselves permission to be fantastically creative.

## Be Optimistic

“Optimism is the thing that drives you forward.”

We believe that design is inherently optimistic. To take on a big challenge, especially one as large and intractable as poverty, we have to believe that progress is even an option. If we didn’t, we wouldn’t even try. Optimism is the embrace of possibility, the idea that even if we don’t know the answer, that it’s out there and that we can find it.

## Iterate, Iterate, Iterate

“What an iterative approach affords us is that we gain validation along the way...because we’re hearing from the people we’re actually designing for.”

Human-centered design is an inherently iterative approach to solving problems because it makes feedback from the people we’re designing for a critical part of how a solution evolves. By continually iterating, refining, and improving our work we put ourselves in a place where we’ll have more ideas, try a variety of approaches, unlock our creativity, and arrive more quickly at successful solutions.

## **Building the Co-design Team**

You will spend time building your Core Team. The right team needs to be in place to deliver an effective user-centred service. Teams need to be multidisciplinary, meet regularly, and work closely together to deliver rapid iterations of user-centred products or services.

The focus is likely to shift as you move through the different phases of the All About Projects process – from Discovery, through Pre-Project, plan, preparing for Implementation, then operating the live service and regularly reviewing its effectiveness. The core team is likely to remain fairly constant, but may need to draw in additional resource and expertise along the way, and may expand or contract in size as services are developed. The exact shape and size of the team will depend on whether you are simply improving on how a particular process within a service works or if it is a more fundamental review of how a whole service is delivered.

For the Discovery phase your team will combine designers, researchers, front line workers and specialists to deliver the project.

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### **Start With A Few Champions**

Start building your core team with one or two people you know, trust and are enthusiastic about the user-centred approach and principles.

The All About Projects Approach, particularly the Discovery Phase, may be new for key people you want to involve in your project team. It is crucial you engage them as you build the multidisciplinary team.

### **Build a Multidisciplinary Core Team**

Work together to define the core team that will remain together throughout the project /redesign process.

### **Include New People for the Discovery Phase**

In the Discovery Phase you will want to look at your service and related issues or challenges from a wide perspective. Work with your core team to define the people you want to involve for the discovery phase.

Remember you need people from different areas of expertise and experience. Include people who work directly with your customers. You will need their insights to be able to more easily put yourself in your customer's shoes and engage with them during the process. Keep looking for your champions!

### **Plan the Training Support**

There are a range of skills and capabilities that need to come together to successfully design a customer-centered service. Some skills which are needed to manage and deliver the Discovery process might be new for the project team. Look at the All About Projects Support Programme, select the most appropriate training and ask for the support you need.

### **Expand and Contract the Team**

You will need different skills and expertise as you go through the All About Projects process. Keep this in mind to expand and contract your core team in the following phases.

## **So you've started the journey!...**

... You're having conversations with the people you need on board and starting to get to grips with understanding the detail of how things currently work. You're ready now to get a better feel for what your customers think and who else might need to be part of the co-design team.

On now to the Research phase...

# Research

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Step 1: Define your Design Challenge

*What are the issues/problems you want to address?*

Step 2: Plan Your Research Methods

*How you will gather the information you will need to develop ideas into solutions?*

Step 3: Build Your Interview Guide

*How to get the most information in the best way*

Step 4: Additional Research Methods

Step 5: Capture Your Learning

 [Research Toolkit](#)

# Overview of the Research Stage

Creating meaningful solutions begins with gaining a deep understanding of people's needs as well as recognising other influences that may help to define any financial or organisational boundaries (or restrictions) that you may need to consider. In the Research stage, you will learn directly from the people you are designing for as you immerse yourself in their lives and come to a deep understanding of their needs and aspirations. The Research stage is about learning in lots of different ways, opening yourself up to creative possibilities, and trusting that as long as you remain grounded in the desires of the people you are designing for (internally and externally), your ideas will evolve into the right solution.

From this stage forward you can start gathering evidence and information towards compiling the Integrated Impact Assessment ([Equality/Community, Environmental and Privacy](#)).

## Step 1: Define your Design Challenge

You will spend time with your team to define the design challenge or problem that you need to tackle and then create a common understanding of what you are working toward.

 Case Study ["Choice Based Lettings" – Review Scope](#)

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### First Thoughts

As a team, your first step will be to talk about the design challenge or problem you need to work on. You will collect and write down thoughts about your challenge. Your team will discuss how you can refine the challenge if it feels too broad, or too specific.

### What do We Already Know?

Chances are good that members of your team will have some knowledge about your challenge or problem. It will be important for your team to share what you already know, so you can build upon it and then focus on discovering what you don't yet know.



## What Else Do We Need to Know?

You will also want to write down and share what you don't know or don't yet understand about the challenge or problem. And remember, an important part of people-centred design is embracing your beginner's mind. It's not a bad thing if there are aspects of the design challenge that you don't yet grasp.

## Considering equalities, how can we ensure that we identify and engage all groups?

Traditionally some groups have either not been recognised or haven't been successfully engaged. [Here](#) are some helpful ideas and things to consider. Don't forget to gather evidence.

## What Are the Barriers?

Your team will review a list of constraints or barriers that might prevent you from tackling the design challenge. You will also brainstorm solutions for overcoming or working around these barriers.

## Step 2: Plan Your Research Methods

Research is the fuel for your ideas. During the Research stage you will want to plan research activities to learn from the people you are designing for and explore unfamiliar contexts. We have selected four good starting points—learn from your own service experience, learn from users, learn from colleagues and experts, immerse yourself in context, and seek inspiration from elsewhere.

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### A. Learn from your own service experience

Start by exploring your customers' experience of the service – the customer journey. Challenge why and how things are delivered in the way they are now and directly involve those who deliver the service now. The journey starts from the very first point of contact with the customer (internal or external), through each 'touch point' during the flow of the work to right up to the customer receiving the end product/service. By looking at the service process as a whole rather than at each part it is

possible to identify those activities that bring value and those that do not. You will be able to recognise areas of work that are there because of failures elsewhere in the delivery process and those that bring true value. Importantly, the people who do the work should be integral to any review or redesign of a service as they know the system better than anyone and have a wealth of knowledge to draw on.

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### **Meet a multidisciplinary group or people from your department**

Before you start your research, it's critical to understand your service from inside. Ask yourself what you are delivering, who for, how and, very importantly, why? Think about which colleagues you need to involve – members of your team, others in the department and across the organisation and perhaps other partners who can help you understand your service and make those challenges. Involve people who are regularly in direct contact with your customers, as well as anyone who is involved in delivery of the service, directly or indirectly...

### **Empathetic approach**

Think about what exactly you want to know from each of them. Prepare your questions and ask frontline staff to help others to understand your users.

### **Make the most of the existing trusted atmosphere**

Make people feel comfortable to speak. Be considerate and listen carefully. Make sure everybody has enough space to talk and say what they want to.

### **Identify weaknesses and strengths in your current service**

Review how the work flows in your service, understand and identify what works well and what doesn't and make sure you understand your customers' experience of failure and success in your delivery to them.

## **B. Learn from users**

Spending quality time with people to gain insight about and inspiration from the people you are designing for is vital, but learning from people requires practice and preparation. Here's where to start.

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### **Who are you going to talk to?**

Before you dig into your research, it's critical to know who you are designing for. Think about the people or groups that are directly involved in or reached by your challenge or review, and then add those who are peripherally relevant. Those are the people you want to talk to.

### **Choose a varied group of users**

When recruiting people to interview, target both the big broad mainstream and those on either extreme of the spectrum. An idea that suits an extreme user will nearly certainly work for the majority too. More importantly, talking to extremes can spark creativity by exposing you to use cases that you'd never have imagined on your own.

### **Plan**

Think about what exactly you want to do with each participant. Where do you want to meet them? How much time will you spend with them? Is there an activity you can do together to enrich conversation? What will you ask them to show you?

### **How are you going to get them?**

It's important to have a strategy around who you talk to, what you ask them, and what pieces of information you need to gather. Don't be afraid to tap into your personal network: people are generally happy to share what they know, particularly if you tell them that you are learning a new design process for creating new and innovative ways of working and/or positive social change in the community.

**At this point** you have gained in-depth insight into people's needs and motivations.

**Keep in Mind** that experts are everywhere —and you don't need a degree to be one. Treat your interviewee as an expert. You are interviewing them about their life, and in that, they are the expert. Be curious and always give them the respect they deserve.

## Remember to...

**Be clear about what you want to learn.** Plan and define the right questions to ask or answer during your research stage.

**Pay Attention to the Environment** Try to meet in the person's context—in their home, office, or workplace. This will help you get a better sense of what's important to them. During the conversation, be curious about the environment. If it's appropriate, ask for a tour!

**Capture Quotes** During your interview, capture important quotes directly rather than interpreting what you think the person is saying. Later, when sharing back with your team, you will have a more accurate record of who the person is—on their terms, in their language.

**Take Photographs** Photographs help you remember who you talked to and what you saw. Photographs taken during your interviews will make your research more visual, meaningful, and easier to recall and navigate. But, make sure to ask interviewees if it's OK to take photographs, and never use those photographs for anything beyond internal project use.

### **C. Learn from colleagues and experts**

Though redesigning services and processes collaboratively is all about talking with people, there are moments where you will need more context or history than a typical interview will provide. This is where both colleagues & expert interviews, secondary research and data come into play.

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#### **Who do you want to interview?**

Experts and colleagues can often give you a systems level view of your project area, tell you about recent innovations—successes and failures. You will want to choose experts based on your objective. Are you looking for someone with a radical opinion, or do you want to gain a more historical overview of what's worked and what hasn't? Get a few different perspectives to balance out your information. You might also look to experts for specific technical advice.

#### **Prepare**

Ask smart, researched questions and plan how you want the conversation to flow. Though you should come prepared with an idea of what you'd like to learn, make sure your game plan is flexible enough to allow you to pursue unexpected lines of inquiry. You could even consider asking the expert to actively help you work on an early concept. Using videoconferencing tools like Skype will allow you to share and build on visual concepts in real time.

#### **Other research sources**

Secondary research, whether done online, by reading books, or by crunching numbers, can help you ask the right questions. A firm foundation of knowledge is the best place from which to tackle a design challenge. Try to find recent innovations in your particular area.

They could be technological, behavioural, or cultural. Better yet, take a look at other solutions in your area or other regions. Which ones worked? Which ones didn't? Why?

 Case Study [“Choice Based Lettings” – Staff Insights](#)

 Case Study [“Choice Based Lettings” – System Inputs and Outputs](#)

**At this point** you'll have access to in-depth knowledge in a certain area of expertise.

**Keep in Mind** it is important to find the balance between using experts to get a good understanding of the current situation and preserving space to think beyond the existing models.

#### **D. Immerse yourself in context**

The Research stage needs to focus heavily on hearing the voices and understanding the lives of the people you are designing for. There's no better way to understand the people you are designing for than by immersing yourself in their lives and communities.

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##### **Plan what you want to observe**

To help you thoroughly understand the service you are seeking to deliver or redesign, get right into the work, placing yourself in the middle of where the work is being done, walk and spend time in the 'system'. Spend time with your colleagues who deliver the work now and observe, ask questions, gather data.

The best route to gaining an understanding of the people you are designing for is to see in person, where they live, work, and lead their lives. Choose an experience that can inform your challenge. For example, if you are looking for new ideas on ways to provide healthier food options for people in need, you might visit a low-cost cafeteria or fast food restaurant during the lunchtime rush. Wait in line, order a meal, and observe the space as you eat. If you have the opportunity, you can learn a lot by shadowing someone for a few hours.

## Capture

It's easy to interpret what's in front of you before you've fully understood it, but first be sure you are taking down concrete details and quotes alongside your impressions. Think of certain aspects you want to capture, such as:

- Map out the different parts of your experience from beginning to end (we call this a "customer journey").
- How did you feel at different parts of the experience?
- What was unexpected? Challenging? Seamless?

## Share and Reflect

Immediately after your observation, take some time to reflect upon the moments you found most interesting. Capture them on Post-its or in your notebook so you will be able to share back with your team in a way that is accurate, vivid, and visual.

**At this point** you have the skills for learning from what's around you.

**Keep in Mind** to keep an open mind when thinking about what you have observed. Imagine it is the first time you have gone through this experience. Look for details you may have overlooked before.

## E. **Seek inspiration from other places and similar experiences**

You are probably familiar with what an analogy is: it's an associative thought-process that allows you to transfer meaning from one subject to another. Analogous research takes inspiration from a different context to give you a fresh perspective.

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## Brainstorm other Experiences

Start with a large sheet of paper, and list the distinct activities, behaviours, and emotions you are looking to research in your own design challenge. Next to each one, write down a setting or situation where you might observe this activity, behaviour, or emotion.

## Ask for permission

If you want to talk with people while in a private (as opposed to public) space, it's best to get permission. For example, if you are going to a hotel for inspiration and want to interview staff or take pictures of the space, speak with a manager ahead of time.

## Absorb what you see, hear ...

Don't worry too much about making sense of the experience in the moment. This part of inspiration is all about gaining learning from other places and similar experiences. In fact, your design team may find it helpful to keep an eye out for similar experiences throughout the process, not just in the Research stage. Later, it might influence your project in ways you never imagined.

**At this point** you have a new perspective on the challenge you are working on, as well as inspiration and energy.

**Keep in Mind** that you need to explore with an open mind, even if you do not immediately understand how to apply your experiences. After you regroup, spend time relating what you found interesting to the issue you are tackling.



## Step 3: Plan Your Interview Strategy

Having a good conversation with someone you don't know isn't always easy. When speaking with research participants, you first have to help them feel comfortable. It might seem odd, but conducting an interview with a casual tone and feel requires rigorous preparation. Here's where to start.

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### What do you want to get from this?

As a team, think about the goal of your design challenge. Ask yourselves some basic questions: Why are you doing the research? What are you trying to find out? Who are you going to talk to or observe? Know that the most valuable part of creating a discussion guide is the thinking that goes into it.

### List lots of questions

When writing your guide, think about the kind of feedback that's going to be most useful and inspiring. Interview guides should not be seen as scripts for the observation, but rather guide rails to make sure you stay on track. Make questions easily readable so you can maintain more eye contact with your interviewee.

### Look for a meaningful order

A good rule of thumb is to open with some general questions, then go deep. This will give your interviewee time to get comfortable with you. Here there are some helpful guidelines:

- **Open General:** Gather basic demographics first. Ask people their age, what they do for a living, if they have children, etc. Begin with questions your participants are comfortable answering. For example, if you are designing new savings products, you might ask people to make a list of all of the things they purchased yesterday.
- **Go Deep:** Ask more profound questions about hopes, fears, and ambitions. It is best if these questions are open-ended, but relate subtly back to your design challenge. For example, if you were working on a project related to the support available for informal carers, ask them to share with you the five things that would make their caring role easier.

## **Open questions**

Frame questions in an open-ended way. This helps you to further explore your challenge and elaborate on interesting themes you discover during the conversations. Try:

- “Tell me about an experience ...”
- “What are the best/worst parts about ...?”
- “Can you help me understand about ...?”
- Encourage people to tell you their whole story and avoid questions that lead to just a yes/no answer.

## **Get the conversation flowing**

It can be helpful to share early ideas or concepts in your conversation particularly when you are working on an abstract challenge. You can create a sketch, build a simple cardboard representation, or describe a scenario to elicit a reaction or response from participants. These are called conversation starters.

## **Confirm your arrangements**

You should confirm date, time, and location for your research activities. Agree on logistics, including transportation, with your team. We encourage you to take as much time as you need for the research activities.

## **Delegating roles**

As part of your field research, you will designate one person to lead the conversation and a different team member to take notes. Remember to encourage them to write down direct quotes and capture the details. The team should also select someone to photograph your interview subject and the surrounding environment. Make sure you ask for permission before taking any photos. It's often best to build trust with your interview subject before asking to take photos, so you may want to leave this until you've finished the interview.

## Remember to...

### **Establish Trust With Participants.**

- Listen patiently. Do not interrupt, and allow for pauses to give participants time to think.
- Use nonverbal gestures, such as eye contact, nodding, and smiling, to reassure participants you are engaged and interested in what they are saying.

### **Encourage Participants To Show As Well As Tell.**

- Have participants draw what they are talking about. Visuals often prompt more conversation.
- Try asking “why?” in response to five consecutive answers.

### **Know What To Look For.**

- What people “say” is often different than what they actually “do.” Look for cues in the things that people keep around them or the way they carry themselves.
- Notice workarounds that people have created in order to make a system or tool serve their needs better.

### **Capture What You See.**

Take lots of notes and photos of what you see, hear, feel, smell, and taste during a field visit.

## Step 4: Other Research Methods

Although time is precious, it is worth experimenting with different ways of gaining a deep understanding of the people you are designing for. To help you, here are a few more ideas to consider!

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### Personal notes

Ask participants to reflect at the end of the day on certain moments or themes. This gives them time for personal and uninterrupted thinking, and gives you an interviewee's thoughts captured in their own words.

Use this when: You want to get a longer view of a participant's experience over an extended amount of time.

### Take photos

Give participants a disposable camera and a list of objects and/or experiences to photograph throughout their day. This gives you a first-hand, visual perspective about your participants through things that are important to them, or are part of their everyday lives.

Use this when: You want to compare and contrast the different daily experiences and realities of a set of participants.

### User journey drafting

Have participants create a personal timeline of an experience, then have them map how they felt at different points along the way.

Use the map as a visual jumping off point for conversation.

Use this when: You want to discuss a complicated system or series of interactions with a participant. (The process of buying a car is a good example.)

## **Use cards**

Create a series of cards with a single word or image on it and ask participants to prioritise what's most/least important, interesting, or relevant to them. Ask them talk through their decision process during this activity so you can understand why they make the choice they make.

Use this when: You want multiple participants to narrow down a set of ideas.

## **Concept Illustrations**

These are a series of simple drawings which describe new concepts and ideas. They can be done in such a way as to provoke strong reactions e.g. as part of the process of defining customer needs and views, or as a starting point to further develop new models for service delivery/processes.

Use this when: You want early feedback on why participants like or don't like certain features.

## Step 5: Capture what you've learned

It's easy to feel overwhelmed by the amount of information you have gathered after an interview, so use a few minutes immediately after each session to capture what you've observed, as well as any new ideas you have as a result.

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### Meet your team

Plan extra time so that you can share your thoughts and impressions with your team-mates right after your interview or observation. This may often happen in a coffee shop or while in transit.

### Share with them your insights

What are the things you found most interesting during the observation? Listen to each other's recollections. Compare experiences and impressions, but don't worry about interpreting these stories yet.

To cover the most important topics, consider using these prompts:

- Sound bites: What were the most memorable quotes that people heard? Why were they memorable?
- Interesting stories: What was most surprising to you?
- Interactions: What was interesting about the way he/she interacted with his/her environment?
- Remaining questions: What questions would you like to explore in your next conversation?

### Make your ideas visual

Did the observation spark a new thought or idea for you? Sketch it out. Don't worry about the way your sketches look or feel intimidated about being visual. These illustrations will help you communicate your ideas to others and give you all a head start on brainstorming concepts.

 Case Study [“Choice Based Lettings” – System Picture](#)

 Case Study [“Choice Based Lettings” – General Issues and Ideas Log](#)

**By now...** you will know your customers well and have a much better understanding of how current processes work. With all the information you have gathered you are now ready to look at everything. As you move in to the Problem Framing phase, the guidance there will help you to consider what you have learnt, how it all fits together and what it tells you.

# Problem Framing

## Contents

### Overview of Problem Framing stage

Step 1: Review what you've learned

Step 2: What does it mean?

Step 3: Create "How might we" questions

 [Problem Framing Toolkit](#)



# Overview of the Problem Framing stage

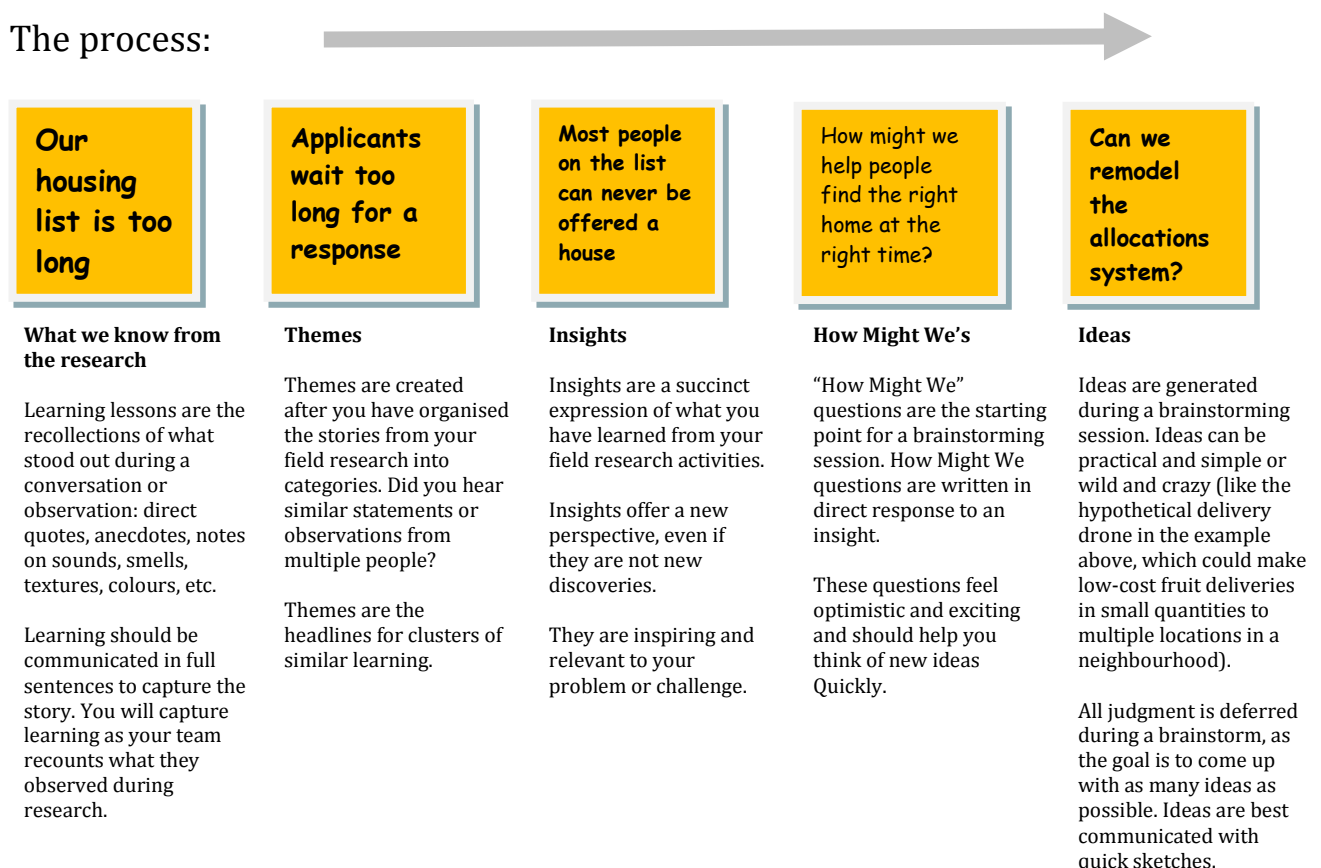
In the Problem Framing stage you will transform your research into meaningful and actionable insights that will become the foundation of your design. You will begin by making sense of what you've learned from your design research—drawing from everything you observed and heard from the people you are designing for. Then, you will identify key themes and insights that will help you define opportunities for design that are differentiated and generative.

 Case Study "[Choice Based Lettings – Muda Glasses](#)"

## Problem Framing: What the research is telling you

The Problem Framing stage begins with looking at what you have learned so far. This is one of the most challenging parts of the Discovery Phase process. It often takes several weeks minimum to translate learning into meaningful insight and then opportunities to design prototypes. Here's a glance at how your learning will eventually evolve into ideas that you can take forward into the second major part of the next Prototyping stage.

The process:



## Step 1: Review what You've Learned

During your research you will have talked to many people and been inspired by immersing yourself in their contexts. Now that you are back with your design team and refining and framing the problem, it's time to talk about what you've learned.

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### Create a space to work comfortably

Before you begin downloading, you will want to make sure you are in a room with plenty of wall space or boards to post your learning. Distribute Post-it notes (or their equivalent) and markers to the whole team. It may also be helpful to have large sheets of paper and tape to attach these sheets to the wall.

### Display what you've learned

After weeks of design research in the Inspiration phase, you've probably got a huge amount of notes, photos, impressions, and quotes. Now it's time to start making sense of them! Take turns pouring key information out of your head and onto Post-its. Spend time on each individual you met and each place you visited. Be specific when discussing what actually happened, and revisit the notes you took during your research. If possible, print out some of the photos you took and use them to illustrate your stories. Follow the prompts below when deciding what information to capture.

### Share what inspired you

Tell the most compelling stories from the field to your teammates. Try to be both specific (talking about what actually happened) and descriptive (using physical senses to give texture to the description). Report on who, what, when, where, why, and how. And then invite each of your teammates to share their own inspiring stories. The goal is to build a repository of stories for your team to draw from, tell, and retell. Capturing those resonant ideas and feelings, and building them into the very narrative of your team's work will help everyone down the line.

**At this point** you get a deeper contextual understanding shared by your entire team.

**Keep in Mind** to tell stories person by person, one at a time. Use vivid details, direct quotes whenever you can, and describe your immediate experiences. This is not the time to generalise or judge.

### **What should you capture?**

- Personal details: who did you meet? (Profession, age, location, etc.)
- Interesting stories: what's the most memorable or surprising story they told you?
- Motivations: what did this participant care about the most? What motivates them?
- Barriers: what frustrated them?
- Interactions: what was interesting about the way they interacted with their environment?
- Remaining Questions: what questions would you like to explore if you had another conversation with this person?

## Remember to...

- **Actively Listen:** While you are listening to each other, compare and contrast the things you have learned. Explore areas where you find different opinions and contradictions. Begin to look for recurring themes.
- **Capture the Information in Small Pieces:** While you are listening to your design teammates tell their stories, write down notes and observations on Post-its (or their equivalent). Use concise but complete sentences that everyone on your team can easily understand. Capture quotes—they are a powerful way of representing the voice of a participant.
- **Display Your Notes:** You will want to write large enough so that everyone can read your notes. Your team will put all Post-its up on the wall, organizing them into separate categories for each person that your team interviewed and each place that your team visited. At the end of story sharing, you will have many sheets lined up on the wall with hundreds of Post-it notes. This will be a great jumping off point for your design team to begin imagining new opportunities and solutions.

## Step 2: What does it mean?

Now that you've displayed what you learned during the Research phase, it's time to work with your design team to identify patterns and themes. These themes will inform your insight statements and eventually lead your team to identify opportunities for design. You will use the assumptions gathered within the Research stage to add to the Project Initiation Document (PID).

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### Organise related information

To start searching for meaning in all that you've discovered during your field research, your team will group your learning into categories or buckets. You can start by having every team member choose three Post-its they find most interesting. Place each of them on a large sheet of paper or spread them on the table in front of the team.

Begin to look for more evidence of how these relate to one another. Have any patterns emerged? Is there a compelling insight you heard again and again? A consistent problem the people you are designing for face? What feels significant? What surprised you? Start rearranging the Post-it's into these new buckets. Clustering will take some time. Arrange and rearrange the Post-its, discuss, debate, and talk through what's emerging. Don't stop until everyone is satisfied that the clusters represent rich opportunities for design.

### Find Themes

Effectively identifying themes and naming these clusters will help guide your insights and "How Might We" statements down the line. Name the clusters you have defined, e.g., "customer access to information" or "problems with duplication in the system" Continue to sort and rearrange the information until you feel your themes accurately represent your design research—make sure no major themes are missing.

## **Transform each theme into a sentence (describing your insight)**

Your team will take a closer look at the themes you created for each of your clusters, as well as the stories that support these themes. Next, you will transform each theme into a sentence, e.g.: “There is no clear path to get the relevant information for customers to meet their specific needs” Write in full sentences. Each theme may result in multiple insight statements.

## **Does it make sense with your challenge?**

Revisit the design challenge that you started out with: How do your new insight statements relate to your challenge? Narrow down your insights to those that are most relevant to the original design challenge. Be prepared to let go of details that are less important. Try to limit your insights to the three to five most important ones.

## **Refine Your Insights**

Experiment with the wording and structure to best communicate your insights. Create short and memorable sentences that get to the point. Make sure your insights convey the sense of a new perspective or possibility. Consider inviting someone who is not part of your team to read your insights statements and check whether they resonate with an outside audience.

**At this point** you get topics to help you narrow and focus your design solution.

**Keep in Mind** that not every insight is entirely new information. Often, you will find things that you knew about before, but your research may have given you a new perspective. Don't be shy about retelling these stories.

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[!\[\]\(d84e7ea36f695d92cb39ec32c307ac93\_img.jpg\) Case Study \[“Choice Based Lettings” – Summary\]\(#\)](#)

## Step 3: Create “How Might We” Questions

Insights are most valuable when they can be used to generate inspiring new ideas. The trick is to transform your insight statements into generative questions which will become the springboard that your design team uses to brainstorm innovative new solutions. We call these questions “How Might We” (HMW) questions.

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### How might we....?

During this step, you will create generative questions that build off of the insight sentences that your team just created. Start each statement with “How Might We...?” as an invitation for input, suggestions, and exploration. Generate multiple questions for every insight statement.

Write them in plain, simple, and concise language. Scoping a proper question can be difficult. Too narrow and you may hinder creativity, but too broad and it won't be actionable. Take a look at these examples:

- How might we provide public transportation options for university students living in small disconnected neighbourhoods? This implies that the solution is related to logistics. By framing the “How Might We” question so narrowly, we have limited the possible directions that the team can take during brainstorming. This statement is too narrow.

- How might we help people from small neighbourhoods move to the city? This question doesn't give enough direction because it doesn't imply a starting point or immediately help people generate ideas around one category (such as distributors). This HMW statement is too broad.
- How might we incentivise distributors to make fruit deliveries in low-income neighbourhoods? This HMW question is better because it leaves open many possible directions that new solutions can take, including logistics, financial incentives, or even community pride.

This is a good “How Might We” question: *How might we get the right information to our customer at the right time?*

### Select the two or three best “How Might We” questions

Your design team will select three of your best HMW questions for your brainstorm session. Trust your gut feeling: Choose those questions that feel exciting and help you think of ideas right away. Also, select the questions that are most important to address and feel like they have the biggest opportunity for design solutions, even if they feel difficult to solve for.

**At this point** you have generative and actionable brainstorming questions that respond to the insights you found.

**Keep in Mind** to avoid brainstorm questions that already imply a solution. Ask yourself: “Why do we want to do that?” This will help you reframe your question more broadly.



## Managing an Online Discussion

Once the research in the challenge area is completed, the challenge refined so the “How Might We” question defined, and the stakeholders are engaged you might want to open the discussion to a wider group of people. During the research stage you might find some areas with unsolved issues or questions you couldn’t answer and now you need to clarify. A wide open discussion will help you illuminate these areas. It is time to prepare you to go live on an online platform or social media forum. With the right tools, resources and stakeholder buy-in the online platform can enable city-wide collaboration, allowing anyone who is interested and willing to co-develop city solutions in a new way.

This includes better responsiveness to your user needs, provision of new solutions and ideas through group intelligence, and proactive scoping of better ways to do things with a shared purpose of making your service better.

The discussion on the platform needs to engage people, prompt them to contribute and motivate them. A good first question needs to challenge people and strike a balance between being focused enough to give some structure to the discussion, but not so narrow as to remove any room for creativity and innovation. In order to assure you maximize the potential benefit of having this large group of people engaged in the discussion **it is important to plan it well.**

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**Remember that...** the City of York Council has its own discussion platform, <http://geniusyork.com/about>. Have a look and get in touch with Dave Atkinson if you decide to give it a try.

## **Planning the Discussion**

### **Publicity**

You will need to engage communication teams from both your own and partner organisations to ensure that your communities are made aware of the project. The invitation to join in and access to the discussion should be shared as widely as possible.

To engage your own organisation make use of the various existing internal communication channels and systems. It is vital to ensure your stakeholders and users are clear about the purpose of the discussion and the importance of them contributing to it. To get them and other partner organisations on board you also can use your existing communication channels and possibly those of other contacts who may share the same customer base or partners. It is recommended to keep in contact with participants while the discussion is going on, following their input and encouraging them to post their ideas, suggestions and insights or offering to do it on their behalf. You might also want to contribute other key people from organisation partners.

Finally, opening the discussion and involving other people in the city in the online discussion will give you the opportunity to gather different points of views and ideas. Advertisements in local magazines, targeted emails to key people, press releases and drumming up interest on social media are helpful to get a broader audience involved. Again, some people may be reluctant to post comments themselves but may want a comment to still be posted, so someone in your core team can offer to post on their behalf.

### **Key topics**

During the previous stage you have conducted research around the problem in general and, more specifically, on some particular issues you might need to explore in more depth. Key information has been produced by these research activities: relevant data and statistics, evidence of the problem (blind spots too!), groups with specific needs and expectations, people/organisations affected by the problem, people/organisations interested in the solution, existing solution ideas (in other organisations, cities, regions...), our vision, who your

stakeholders are and what you want to ask them, our areas of influence...

Refining the problem and framing it into a “How We Might” question(s) you have clearly defined the most important areas that you will need to discuss further at this point. It is important to know the specific topics you want the participants to think about and discuss. In case some key topics don’t arise automatically in the conversation you can use the information gathered earlier to direct the discussion towards them.

**Example:** During a discussion on the GeniUS! Platform in York our challenge was to improve the GeniUS! Model itself (a model to co-create solutions to city challenges), specifically we wanted to gather ideas around **how to engage people** in the process.

We wrote a list of reasons why people don’t engage and, for each reason, some questions we wanted to prompt throughout the discussion. Many of the questions and reasons emerged naturally in the course of the debate, some were totally new and others were prompted in different ways such as posting articles, posing a direct question at an appropriate time, answering a specific comment with data and statistics, contrasting our ideas and vision, asking around our blind spots, etc.:

**Possible reasons for the lack of engagement:**

1. People have the time, the willingness to participate but they don’t find an adequate communication channel:
  - *What channels are the most adequate for residents? Can we think in the different groups of people and their preferences, online and offline?*
2. People do want to participate but they don’t have time:
  - *Do we have easy and accessible communication channels, online and offline?*
  - *Would an “express” participation channel (non-time-consuming channel) be effective? How do you imagine it? Online and offline? Click on [this initiative in South Korea](#).*

*- Participation through civil communities, is it effective? Can we do it better?*

3. People have the willingness to participate but they have the ideas at any time of day and there's no open channel at that precise moment:

*- How can we collect ideas at any time, regardless to subject discussion timeframe, and process them? Can we re-think a 24/7 "listening" service?*

4. People don't have the willingness to participate in their city challenges because they think it isn't worth the effort:

*- How can we show it is worth participating in your city challenges?*

*- How can we ensure people feel listened to by the City?*

## **Key People for the Ideation and Prototyping Stage**

Your stakeholders and users as well as other residents, businesses and organisations are your potential participants throughout the discussion. Before the discussion and during the previous contacts with some of them you might have identified some of the key people you would like to engage, not just during the online discussion, but also for the ideation and prototyping activities and workshops. Identifying these people previously and then paying special attention to keep momentum during the discussion may help you to get them enthusiastically involved in the future activities.

In addition, the content of the participants' contribution and insights can give you clues to identify new key people you might also want to engage and involve.

## **Challenge Themes for the Ideation and Prototyping Workshop**

Following the online and offline discussion, reviewing and analysing the conversation you will be able to sort and define the themes (5 or 6) which you will ask people to work on in depth during the Ideation and Prototyping workshop. The design and planning of the workshop(s) need to incorporate the ideas and themes which have come out of the discussions so far. This information will form the structure and content of the workshop to make it as effective as possible. You will then be able to decide which tools will help you to get the most out of the group(s) you have brought together.

## Keeping the Conversation Going

There are many ways to encourage participation and enhance dialogue. Conversations on the platform work much better when several people are contributing. People often don't want to be the first one to contribute and will be more likely to get involved if they see others doing so first. The core team should start off the discussion and line up key stakeholders to contribute.

The core team members should all contribute to the platform and the discussions. Stimulation of conversation and encouragement of comments will keep the discussion lively and responders enthusiastic. Posting news stories to get people talking and use of videos and pictures is also helpful. Making posts that ask questions of others also prompts participation.

Open processes also have risks. Occasionally you might receive negative and disruptive comments about the process itself or even the organisation that is running the process (a "troll" comment is also possibility). Answering these participants in a respectful, constructive and positive way, using the comment to emphasise the openness and transparency of the process, getting, if possible, a positive idea from the comment, and asking for a constructive discussion will help. Don't panic, remember you are not alone and positive contributions from other participants will support the principles of the process. Responses to disruptive comments must be quick and short and rapidly move back to the discussion to keep things moving forward.

**At this point** you have strengthened your capability to find new solutions because:

- the perspective of the service and its users is wider
- the problem is commonly understood
- the areas to focus on are better defined
- people's concerns and priorities are defined and understood
- new topics, solutions and ideas are gathered

**Keep in Mind** that now you will be ready to collectively find specific creative and achievable solutions in the course of the next step: Ideation and Prototyping.

# Ideation and Prototyping

## Contents

### Overview of Ideation and Prototyping stage

Step 1: Ideas generation

Step 2: Which ones are the best ideas?

Step 3: Which idea do you want to Prototype?

Step 4: Prototype!

Step 5: Test & Get Feedback

Step 6: Integrate Feedback & Iterate

 [Ideation and Prototyping Toolkit](#)

The Ideation and Prototyping stage will enable you to turn your opportunities for design into innovative concepts to prototype. First, you will brainstorm lots of new ideas and select a few of the most promising to move forward with. Then, you will build prototypes to test these concepts and continue to gather feedback and improve on your ideas. This cycle of prototyping and iterating will ultimately help shape a more innovative, effective solution.

## **Make your ideas visual and real**

Following the problem framing stage, the synthesis of your ideas into opportunities, the Ideation and Prototyping stage, is a chance for you to make your ideas come to life and test them with the people you are designing for.

You might decide to test your idea right at the beginning of your project or wait until your idea is well developed. You might run tests throughout the development process to build an evidence base over time. The approach you take will depend upon why you have chosen to test in the first place, the context in which you are operating, and the quality of the relationships you have with your stakeholders.

There are a few key things to remember about prototyping. First, remember when you first learned about the mindset for co-design, full engagement of customer, staff and other stakeholders? Prototyping is all about learning from failure. Build and test your ideas quickly so that you may learn and continue iterating on them.

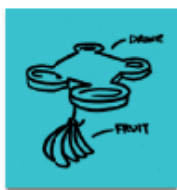
Second, **be clear about what you want to achieve** and how you measure the outcomes and outputs of what happens now, against how things would work in your prototype. Do you have a particular methodology in mind for how you will test your idea? Are you clear about the process you will use, how you will capture data and gather feedback? How you will use this evidence to inform your decisions? Being disciplined in your approach will help to maximise the value of starting small to test your idea.

Third, don't think of prototyping as a linear process. As you test your concepts, you will have to jump between the following steps often. This cyclical process of testing your prototypes, getting feedback, and iterating is an important one in order to create an effective, innovative solution in the end.

Finally, deciding who you will test with will partly depend on what it is you are seeking to understand but whatever you are testing you will want to speak

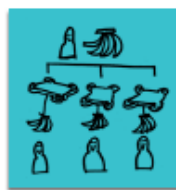
to frontline staff, service managers and decision makers, as well as service users and communities. The quality of the relationships you have with these stakeholders will partly determine who you decide to test with. Investing in these relationships will help maximise the quality of the insight you generate from testing.

## The process



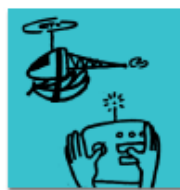
### Ideas

As you've now seen, idea generation is all about coming up with as many ideas as possible—wild and crazy or simple and practical. You've then narrowed these ideas down to what you most practically see succeeding and what you think is most innovative. These final ideas will serve as the basis for you to build out the concept for your solution.



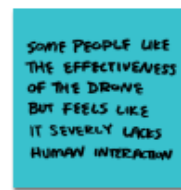
### Create an early stage of a model

First, before we create one—what's a concept? A concept is a more polished and complete version of your idea. It's starting to look like an answer to your HMW question. This is where you move from problem to solution and it drives everything that comes next. You will visualise your concept—through an experience map.



### Prototype

This is the fun part! Prototyping is the time to make ideas tangible to learn more about your idea simply by trying it. Remember, you learn just as much from the failures as the successes. Your prototypes should be rough and only as accurate as needed to get key feedback from the people you are designing for.



### Test and get feedback

Soliciting feedback on your concept and prototypes helps keep the people you are designing for at the centre of your project. Collecting feedback from potential users is what pushes things forward and allows you to iterate and refine until your solution is working.



### Integrate feedback and Iterate

Now you will want to synthesise some of the feedback you got and brainstorm how your concept could change based on your feedback. Once you've determined how your prototype should change to reflect the feedback you got, go ahead and build it. This loop of prototyping, getting feedback, and iterating based on feedback will happen a number of times (double loop learning)



## **Step 1: Ideas generation**

Brainstorming is a critical phase which needs to be focussed and disciplined. To help you get the best out of this activity we have put together some basic principles for you to follow. And remember - this should be fun!

Brainstorming is one of the best opportunities to tap into people's creativity and bring forward lots of useful ideas to build on.

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### **Run the workshop in an appropriate space**

Make sure to conduct your ideation workshop in a room with sufficient wall space, where participants can comfortably get up from their chairs and move around.

### **Design tools that capture ideas and insights**

Gather materials like Post-it notes (or their equivalent), markers, paper and snacks— don't underestimate the power of sugar in a brainstorming session!

### **Invite people with varied backgrounds**

Consider involving people who are not part of your team to the brainstorming session, as they will have a fresh perspective. Try to include six to eight people.

### **Plan for about 45 Minutes**

It's best to keep brainstorming sessions less than an hour, so plan on two to three brainstorm questions, and spend no more than 15-20 minutes on each. This is the best approach for maintaining focus and energy.

### **Have facilitator(s)**

A good discussion guide, the "facilitator", is vital for the success of the ideation and converge activities the groups will be asked to do during the Ideation and Prototyping workshop. Have a look at the "Facilitation Guide" in the Ideation and [Prototyping workshop tool](#).

Name a leader in your team to the brainstorm exercise. Familiarise yourself with brainstorming protocol.

### **Brainstorming Rules**

Explain each rule and its purpose to set the right tone for the activity. You can find an overview of brainstorming rules on the next page of this guide.

### **Ensure people will feel comfortable to participate**

Gather your team near a wall or flipchart. Give everyone a Post-it pad and a marker. Encourage people to draw and be visual. Remind them to write in large letters and to note only one idea per Post-it.

### **Step by step**

Post the question you are brainstorming about on the wall so everyone can see it. Ask participants to take a few minutes and write down their first ideas before starting as a group. Then facilitate the brainstorm and capture each individual idea.

### **Motivate people**

Provide encouragement or alternative topics if the flow of ideas slows down. Switch to a new brainstorm question every 15-20 minutes. Throw out some wild ideas yourself. Remind your team of the rules if needed. Set a goal for how many ideas you want to generate in total.

**At this point** you have the right kind of space for a dynamic brainstorming session, and ultimately lots of fresh, new ideas!

**Keep in Mind** when you make brainstorming part of another activity, lesson, or meeting, remember that generating ideas is a mode that participants need a little time to get into. Create the time and space for a transition into that mindset.

## Brainstorm Rules

- 1. Defer Judgement.** There are no bad ideas in a brainstorm. There will be plenty of time to narrow the ideas later.
- 2. Encourage Wild Ideas.** Even if an idea doesn't seem realistic, it may spark a great idea for someone else.
- 3. Build on the Ideas of Others.** When you hear an idea from a teammate, think "and..." rather than "but..." in order to be as generative and open as possible.
- 4. Stay Focused on Topic.** To get more out of your session, keep your brainstorm "How Might We" question in sight.
- 5. One Conversation at a Time.** All ideas should be heard, so only one person should talk at a time. Wait your turn to share and make sure the whole group is listening.
- 6. Be Visual.** Draw your ideas, as opposed to just writing them down. Stick figures and simple sketches can say more than many words.
- 7. Go for Quantity.** Set an outrageous goal—then surpass it. The best way to find one good idea is to come up with lots of ideas.

## Step 2: Which ones are the best ideas?

The passion and energy of your team around particular ideas will make the development of your designs successful going forward. To get a sense of which brainstorming ideas generate the most excitement, everyone on the team will vote on their favourite ones while they are still fresh in your minds.

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## Search for themes

Spend a few minutes immediately after a brainstorming session grouping together similar ideas.

## Vote the best ideas

Your team will then select their favourite ideas to move forward with for the remainder of the Ideation and prototyping stage. Everyone will make two selections — the idea that you think is most likely to succeed and the idea that you find to be most innovative.

Let people decide in silence first, so that they are not swayed by others' opinions. Vote directly on the brainstorm Post-it's, either using sticky dots or simply drawing a dot.

## Discuss and reflect on the ideas

Count the votes and determine the most popular ideas. As a team, evaluate the most promising ideas and decide which ones to develop further. Be realistic about the number you can pursue—aim for two or three ideas to start with.

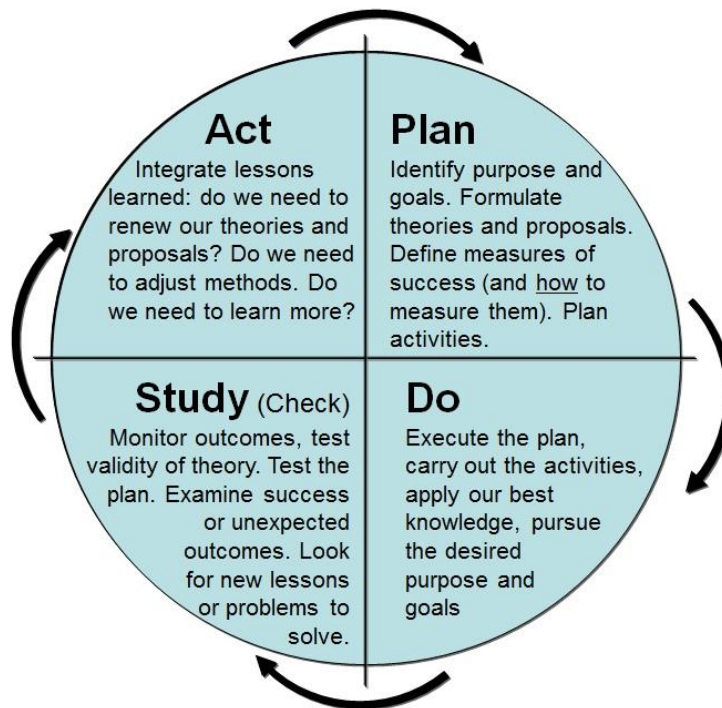
**At this point** you have a selection of ideas that the whole team is excited about taking forward.

**Keep in Mind** to trust your gut feeling. As long as there is excitement about an idea, it will be a good basis to work from.

## Step 3: Which idea do you want to prototype?

Your design team has thought of some big ideas over the last stages. Now that it's time to prototype, the first step in this process is breaking apart your idea into smaller components that you can test.

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### Draft the main steps of the user journey

Any idea or service that you create will have a beginning, a middle, and an end for a user experiencing it. How will a person find out about your idea? What will their first experience with the product or service be like? How does the experience end? Your design team will break down the user experience for your idea into several discrete parts.

### Map the user experience

Next, you will visualise the experience of your idea over time through a series of images, sketches, cartoons, or even just text blocks. Stick figures are great—you don't need to be an artist. Use Post-it notes or individual sheets of paper to create the storyboard so you can rearrange their order.

## What do you want to know?

Each step in the user experience that you've created has questions that your team needs to answer in order to understand how your idea might work in practice. For example: "How will people hear about your product?"

Will users be willing to pay in advance for your service?" Your team will identify these questions and then brainstorm prototypes to help you get answers from the community.

## Prioritise what you want to address first

Your team will identify which questions are the most important to answer first and what form of prototype will best help you answer those questions. Once you begin receiving feedback from these prototypes, you will iterate and refine your idea accordingly

**At this point** you have a better sense for the big picture of your idea but with an actionable plan for prototyping and testing smaller elements of the concept.

**Keep in Mind** that...

...the key is testing small pieces of the whole instead of investing heavy time and resources into bringing the entire idea to life. Build prototypes only around those details which help you address a core assumption.

...a prototype is essentially a tangible answer to a theoretical question. And rather than testing an entire idea, the best prototypes help to get you answers to very specific questions about an idea. Sometimes designers have great ideas, but create prototypes that are much too broad to give them good answers.

**Example:** In an IDEO.org workshop, a team was tasked with thinking of new ways to help youth with alcohol addiction. The team had an idea involving mobile counselling centres that could visit different neighbourhoods. The team decided to build a scale model prototype of the mobile counselling centre. While this prototype helped the team get more clarity on what the centre might look like, it didn't help them answer any of the specific questions about how the users in the community might want to interact with their idea.

More useful prototypes might have helped the team answer some of the following questions related to smaller parts of the larger mobile counselling centre idea:

**How might someone learn about the alcohol counselling sessions offered by the centre? What if we prototyped:**

With new ways of disseminating information. How about printing information about the centre on the paper and plastic bags liquor stores require people to place their purchases in? How would members of the community respond to this prototype? Would it make them more likely to visit the mobile counselling centre?

**How might this person sign up for a counselling session at the mobile centre? What if we prototyped:**

Different places where people could sign up for counselling sessions. What about jails, in the hospital after a drinking-related incident, after getting arrested? Would creating a hotline for friends or partners who know someone with a problem be another way to connect with potential individuals?

## How might the counselling centre help someone stay sober once they are no longer in counselling? What if we prototyped:

With different ways to keep in touch with people. Do people prefer monthly check in calls? Emails? Buddy groups? Is there a way we might help people design their own support system?



An IDEO.org design team creating a water and hygiene product subscription service started by roughly mapping out the full service experience—from how the customer first becomes aware of the offering to when the subscription arrives at their door.



## **Step 4: Prototype!**

Prototypes enable you to share your ideas with other people, get feedback, and learn how to further refine them. You can prototype just about anything. Below are a few examples of different types of prototypes that you can create.

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### **Create a refined model**

Put together simple three-dimensional representations of your idea. Use paper, cardboard, pipe cleaners, fabric, and whatever else you can find. At the start, keep it rough and simple. Evolve the details and resolution over time.

### **Create a Mock-Up**

Build mock-ups of digital tools or websites with simple sketches of screens on paper. Tape the mock-up to an actual computer screen or mobile phone when testing it.

### **Create a Role-Play**

Act out the experience of your idea. Try on the roles of the people that are part of the situation and uncover questions they might ask. Consider assembling simple props and/or uniforms to help people experience your product or service more realistically.

### **Create a Diagram**


Map out the structure, network, journey, or process of your idea. Try different versions. Diagrams can be especially helpful to share a service you are imagining.

### **Create a Story**

Tell the story of your idea from the future. Describe what the experience would be like. Write a newspaper article reporting about your idea. Write a job description.

## Create an Advertisement

Create a fake advertisement that promotes the best parts of your idea. Have fun with it. Now change the tone of the advertisement to appeal to different types of customers (your grandmother versus your cousin the college student).

 Case Study [“Choice Based Lettings” – Quick Win Improvement and Proposed System Redesign](#)

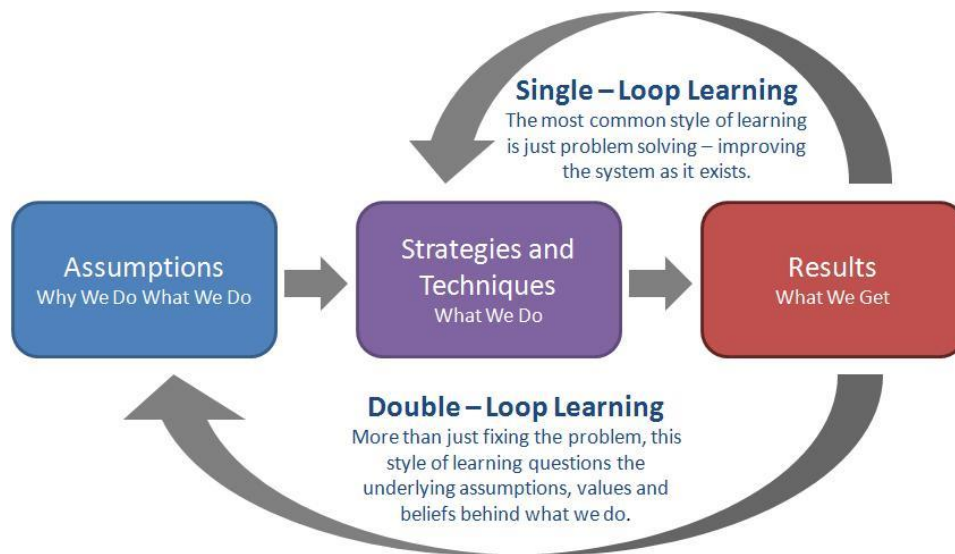
**At this point** you have a tangible representation of your idea that you can share and learn from.

**Keep in Mind** to keep a running log of questions that come up while you build prototypes. Revisit and answer them as you develop your idea further. Take photos and capture the evolution of your prototype over time as you make changes and increase its resolution.

## Step 5: Test & Get Feedback

Feedback is one of the most valuable tools in developing an idea. Sharing prototypes early in the design process helps you see what really matters to people and which aspects need improvement. It's time to go back and talk to the people you are designing for and begin getting feedback on your ideas.

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### Consider the Setting

Decide what context you want to share your idea in. Is it helpful to first show a rough idea in an informal setting you are familiar with (such as the workshop room where your team has been meeting)? Or will you learn the most from seeing your prototype in the context where it will ultimately be used (in other words, out in the community)?

### Define What to Test

With your team, determine what kind of feedback you are looking for: Do you want to get feedback on the first impression of your idea? Are you trying to learn whether people would participate in a new activity you designed? Are you wondering whether people will change behaviours over time because of your concept? Capture your thoughts and create a list that will remind you of the goals of your research.

## Define Feedback Activities

Based on what you are trying to learn, carefully plan your feedback activities. Arrange for a conversation if you are interested in a first impression. Set up an activity or service as if it were real if you want to observe peoples' actual behaviours. Consider letting people use a prototype over a period of time if you are interested in its longer-term impact.

## Invite Honesty and Openness

Introduce your prototype as a work in progress. Make it clear that the development of your idea is still in progress, and that based upon their feedback, you will continue to make further changes and improvements to the prototype.

## Stay Neutral

Present all concepts with a neutral tone. Don't be defensive or sell your idea—listen to all feedback and take notes both on the positive and negative comments.

## Adapt on the Fly

Encourage participants to build on the idea, and revise the prototype as you go. Be ready to eliminate or change parts of the idea.

**At this point** you've got a plan for your feedback activities.

**Keep in Mind** that you only need a handful of conversations to get robust feedback. Consider the few constituents that might help you learn quickly.

## Provide Multiple Prototypes

If time permits, or if you have a prototype that is easily adaptable, consider preparing various versions of your prototype to encourage people to compare and contrast.

## Capture Your Ideas & Design Iterations

Discuss how to improve your prototype and capture ideas for a next iteration immediately. If permitted by participants, take photos of the prototype testing in action—it will help jog your memory later.

## Find a Space & Time

Plan for some extra time after a feedback session so you can share your impressions with your team right after your conversation when they are still fresh in your mind.

## Share Your Impressions

Discuss the conversation with your team. Compare each other's lessons learned. Take notes on your conversation.

**At this point** you've got a constructive feedback on your prototype and new ideas and perspectives on how to improve your concept.

**Keep in Mind** to try to let participants experience your concept, rather than just talking about it. Let them interact with a prototype in their own context, or integrate them into a role play. Don't shy away from changing your prototype in between feedback conversations. Test your iterations right away.

**Remember...** Consider using the Following prompts:

- What did participants value the most?
- What got them excited?
- What would convince them about the idea?
- Which parts would participants like to improve?
- What did not work?
- What needs further investigation?

## Step 6: Integrate Feedback & Iterate

Feedback is invaluable to developing an idea, but can also be quite confusing. It may be contradictory or may not align with your goals. Sort through the responses you receive and decide on what to integrate in your next iteration.

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### Cluster the Feedback

As a team, discuss the reactions you received to your prototypes. Start by sharing the impressions you captured right after your feedback conversations. Take notes on Post-its. Sort and cluster the feedback: What was positively received? What concerns came up? What suggestions and builds did you find?

### Evaluate the Relevance

Take a moment to revisit where you started. Look at your earlier learning and ideas. What was your original intent? Does it still hold true, based on the feedback you have received?

## Prioritise the Feedback


As a team, come to an understanding about the feedback that is most important to making your idea a success. Sort your notes and create an overview of which feedback you want to respond to.

## Evolve Your Prototype

Incorporate valuable feedback into your concept. Make changes where people saw barriers. Emphasise what was well received. Then, create a new prototype that you can share. Go through feedback cycles repeatedly and continue to improve your concept.

**At this point** you've got a way to refine your idea based on what you've heard and insight into the next prototype you should make.

**Keep in Mind** that Iteration can happen after your full testing and feedback session is complete, or it can happen as new information and understanding comes in before you get to the point of implementation. Remember...don't be afraid to iterate quickly!

 Keep updated with the last tools and people-centered methodologies [here](#).

# Next steps...

The most feasible prototype(s) will now be ready for the [Gateway 1 Approval Review](#). This review aims to assess the process followed to get to the point of specific solution idea(s) (research, problem framing and ideas for the project). It checks whether the prototypes meet the users' needs and the organisation's strategy.

If your idea(s) is approved and agreement is given to look further into how the changes could work, you can now draw up your Strategic Plan and go forward to ask for a formal Mandate from the relevant officer(s) (see [guidance in the handbook](#)).

Once a mandate for the project or redesign work is given you will be ready to progress your idea(s) through the Initiate, Plan and finally the Implementation phases, moving through gateways 2 to 7 as you go.

In the [handbook](#) you will see guidance and template documents to steer you through each gateway and help with how to record and report on the work you are doing.



## And finally...

We hope the Discovery Phase Guidance has helped you to follow the principles of the All About Projects approach, with enough useful information and tools to support you on the journey.

As you go along you will learn which engagement and analysis tools work best for whatever you are working on at the time. Better still, you will probably develop your own tools that you can share with colleagues too!

If you have any questions, or examples of reviews and/or remodelling of services that you would like to share with others as case studies in this document, please contact:

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# THANK YOU!

\*\*Some of the material in this guide is based on tools from the IDEO's human-centred design approach, the DIY toolkit from Nesta and other sources.