the
power of
humanity

AUSTRALIAN RED CROSS

THE
PROBLEM
SOLVER'S
TOOLKIT

CONTEXT   **EXPLORE**   **VALIDATE**   **DELIVER**

This toolkit is a suite of best practice tools and methods that can be adopted by any team, at any time, in the design of products, services and experiences.

Take it to workshops and meetings, or use it on your own to help you understand the people you're designing for and the problems you're solving for them.

INTRODUCTION

What this kit is, why we designed it, who
you should use it with, and how.

WHAT, WHY, WHO, HOW

Whether you're working on your first project at Australian Red Cross, or you're a seasoned veteran, this toolkit can help you deliver solutions that fit peoples' needs.

What's this kit about? And why should I use it?

We have put together a selection of the best tools and techniques currently in use for designing better products, services and experiences – based on solid evidence. You'll notice that we've put the people you're designing for (called "users" throughout the toolkit) at the centre. This is entirely intentional.

This toolkit can be used at any stage of a project; whether you're starting out, reaching the end, or needing to evolve your approach.

Who is this kit for? And who should it be used with?

We have designed this kit for Australian Red Cross people who want to work more effectively, design better things, and contribute creatively and meaningfully to the work of Australian Red Cross. These tools can be used in individual and group settings and are designed to work in an internal and external stakeholder context.

How do I use this kit?

This kit is modular, and divided into four main sections; context, explore, validate and deliver. Use the "context" cards to help you brush-up on your understanding of any principles, methodologies or approaches that are new to you. The "explore" cards will help you move from problem definition to prototype, through gaining an intimate understanding of your problem, users and their needs, and spark your ideas for solutions. The "validate" cards come into play once you've arrived at a solution direction and need tools to help you gain feedback, test your ideas, and iterate where needed. The "deliver" cards are there to help you plan for success, build it, and grow it.

The best part? There's a tool for almost every situation. You don't need to use them in order. Just pull out the one you need, whenever you need it.
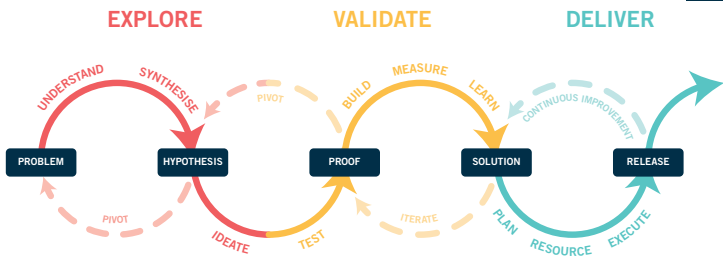
INTRODUCING OUR PROBLEM SOLVING PROCESS

Once you've understood your **context**, the design of good products, services and experience moves from **exploration**, to **validation**, then onto **delivery**; with moments to **pivot**, **iterate**, and **continuously improve** along the way.

To visualise this, and the steps in between, we've designed the below visual to help you make sense of the process.
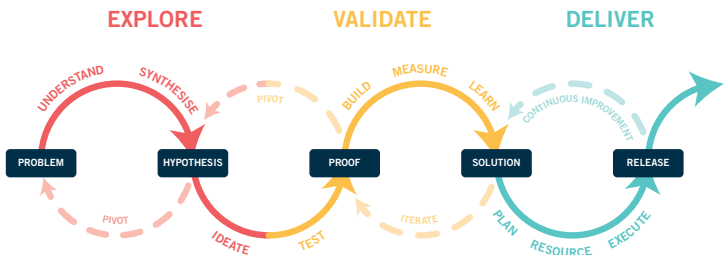
Explore

At the beginning of any project, your **problem** needs to be defined – this could also be thought of as your *challenge* or *opportunity*. Then, you need to **understand** the scope of the problem, your users, and the context the problem exists within. Once the problem is well understood, it's time to **synthesise** your learnings and insights to uncover the patterns, themes and principles that will direct your way forward. At this point, you should have a clear **hypothesis** of the change you are seeking. A good hypothesis should resemble the following statement: *We believe [target market] will [do this action / use this solution] for [this reason], leading to [target outcome]*. Without a clear hypothesis, it's time to **pivot** back to redefining your problem. Otherwise, it's time to move onto **ideation**, where the goal is to go wide in exploring all manner of solutions to your problem in the pursuit of the desired change you've outlined. It's ok to get adventurous here; that's how some of the best ideas emerge. By the end of the ideation phase, you should have a good idea of which solution direction you'll likely head towards.

EXPLORE   **VALIDATE**   **DELIVER**

UNDERSTAND SYNTHESISE PIVOT BUILD MEASURE LEARN CONTINUOUS IMPROVEMENT

PROBLEM   HYPOTHESIS   PROOF   SOLUTION   RELEASE

PIVOT IDEATE TEST ITERATE PLAN RESOURCE EXECUTE

Validate

Now that you've stretched the imagination and arrived at some adventurous ideas, it's time to get selective about which solutions are best to pursue. It's ok to start from assumptions about your users or ideas, as long as you include efforts to test and validate them. Your solutions need to be **tested** with team members, stakeholders, and – crucially – your users. This is where you get lean; aiming to **build** low-effort, high-value versions of your solution that can be **measured** in testing, so that you can **learn** where to pivot, and where to persevere. Until you arrive at a validated product (or service), you'll need to keep iterating.

Deliver

Getting to a validated product or service is no mean feat, and is likely the result of having applied enough rigor to your exploration phase. From this point, it's time to ramp-up with some solid **planning** to ensure you have everything in order; including **resourcing** the people, funds and partners you'll need in order to fund, build, scale, promote and improve your product and service; and then, of course, **executing** on what you've planned to deliver. Importantly, releasing the product or service is not the end of your work. The best products and services incorporate **continuous improvement** and Agile techniques to ensure that learning, measuring and iterating become par for the course throughout your product or service's life-cycle. Make sure your timeframes, budgets and resources cater for this.

> **A note on language**
> It's important to understand the correct usage of the word "problem". People are never the problem. Your users may experience problems, or pains, in their lives; but they do not constitute problems themselves. Be careful to ensure your users never feel like a problem needing solving.

NAVIGATING THE CARDS

The cards in this toolkit share a consistent visual system.
Understanding this system will help you use the toolkit efficiently.

Section icons represent which of the toolkit's four sections the card is related to.

When and **Who** denotes when you might use the tool, and who to use it with.

Card number shown on front and rear of the card.

Card snapshot explains the activity in a brief sentence.

Time and **Effort** representing how much time and effort the activity should take.

🕐🕐🕐 = < 1 day   = for beginners
🕐🕐🕐 = < 1 week   = intermediate
🕐🕐🕐 = > 1 week   = advanced

Template / Diagram visualising the activity outputs.

Pro tip provides expertise on how to get the most from this activity.

FRONT

Download provides links to downloadable templates online.

REAR

VALUES AND MINDSETS

This toolkit has been developed with particular values and mindsets in mind. Opening your mind and trying these new ways of thinking will help you get the most from the toolkit.

Adaptive mindset

Dealing with and adapting to change has never been more important to our work lives. Embracing it is key to adopting innovative tools and techniques into our day to day work.

Understanding and addressing bias

Our experiences shape who we are and how we think. Sometimes, we bring what we've learned from our experiences into objective decision making. Knowing when we're doing this, and how to avoid it, will help us extract accurate insights to drive our work forward.

Collaboration

The best ideas are never created by lone individuals. It takes teamwork and diversity to arrive at truly meaningful solutions to problems.

Courage

The world seems to be changing faster than ever. Terms like "disruption" have entered our everyday language. It takes true grit to forge ahead on creating sustained solutions to big problems in this environment.

Prioritising people

While this seems like a no-brainer for a humanitarian organisation, sadly we often find ourselves focusing first on budgets, deadlines and strategies. Never forget that we serve people first, and our solutions should always put people at the centre.

Creativity

Think of the main things that separate adults from children. The speed at which children learn, their acceptance of new ideas, and their willingness to get messy should inspire us in our work.

CONTEXT

Whether you think of yourself as an astronaut, an explorer, a scientist or a humanitarian, you'll need to know what sort of tools you'll be working with.

ALL ABOUT AGILE, LEAN & HCD[1]

It's no secret that organisations like Red Cross are going through disruptive changes. Terms like *Agile*, *Lean* and *Human-Centred Design* are becoming fundamental to the way we work, and how we continue to serve people. Understanding these concepts – and how they work together – is crucial.
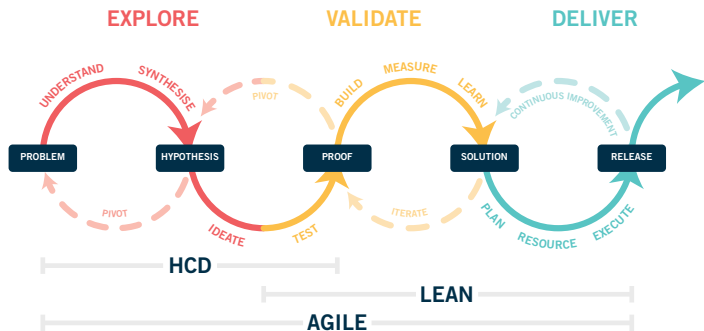
Human-centred design

Get the right design

At it's simplest, Human-centred design is about **getting the right design** through understanding what is truly valuable to the people you are designing for.

Agile

Get the design right

As you're working towards getting the right design, Agile is used to **get the design right** through iterative delivery and reduced risk.

Lean

Make the design efficient

As you optimise and prioritise, Lean is about **making the design efficient** through minimising waste while optimising and improving processes.

HUMAN-CENTRED DESIGN

When: you want to create products and services that deeply resonate with your target users

Who: everyone

Human-centred design (or HCD) is a creative approach to problem-solving that puts the people you are designing for at the heart of the process. The goal of Human-centred design is to develop solutions that truly meet the needs of your users.

Human-centred design focuses on building empathy for the people you are designing for; generating a wide variety of ideas; translating some of these ideas into prototypes; sharing these prototypes with the people you're designing for in order to gather feedback; and then building the chosen solution direction for release.

One of the most important habits in Human-centred design is to make user feedback routine. It's easy to put aside the gathering of feedback when faced with tight budgets and deadlines, but without it, you risk building something that completely misses the mark.
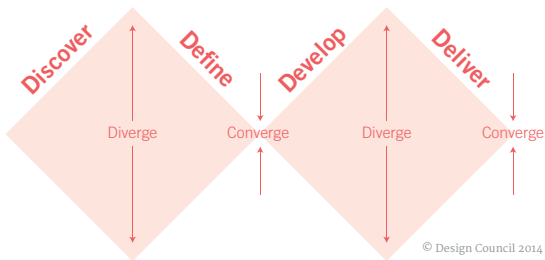
HUMAN-CENTRED DESIGN
THE "DOUBLE DIAMOND"

The "double diamond"[2] is an often used visual to make embracing the process of human-centred design more tangible.

Divergent thinking is used to describe the parts of the process where conceptual, lateral, creative thinking is used for gathering inspiration or generating ideas and possible solutions.

Convergent thinking is used to describe the parts of the process where analytical, methodical and critical thinking is used for making sense of insights and feedback, or deciding on what to focus on as your final solution.

Discover **Define** **Develop** **Deliver**

Diverge   Converge   Diverge   Converge

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Phases of the double diamond

Discover

Designers try to look at the world in a fresh way, notice new things and gather insights.

Develop

A period of development where solutions or concepts are created, prototyped, tested and iterated.

Define

Designers try to make sense of all the possibilities identified in the Discover phase.

Delivery

The resulting project (a product, service or experience) is finalised, produced and launched.

CO-DESIGN

When: you need to create solutions for complex problems and want to ensure you empower your users

Who: design team, research team, users, testers

As we know, good design is *human-centred* – it seeks to deeply understand and empathise with users by putting them at the heart of any process, to design and invent new solutions. **Co-design** is rooted in this human-centred approach, but goes one step further. The process seeks to enable users and other key stakeholders to actively participate in the actual problem-finding and designing of new solutions.

Co-design is valuable for a multitude of reasons. Having users contribute to a greater understanding of the problem space leads to better ideas and more valuable solutions. It can foster greater collaboration across the sector, promoting a way of working that improves co-operation. It provides a proactive approach to change, creating the conditions for better decision making and reduced development time and costs. And, crucially, it generates buy-in from the participating stakeholders, building loyalty and a sense of purpose.

CO-DESIGN
RUNNING SUCCESSFUL WORKSHOPS

Consider the following recommendations[3] when planning to run a co-design process with your users and key stakeholders:

- Be **creative**, **take risks** and **have fun** while getting the work done
- Engage an **experienced**, **respectful**, **creative**, **intelligent** and **neutral** facilitator
- Establish **behaviour and protocol guidelines** early
- **Don't make promises** to participants **that you can't keep**
- Keep the process grounded in **the reality of the service environment** and in **the life experience of your users**
- Consider the **cultural context** and **diversity** of your users
- Mix-up the activities with **a variety of formats**
- Don't underestimate **the power of good catering**, and make it **specific to dietary requirements**
- Allow **time for your participants to network** in session breaks
- **Match the format or technique** for each activity to the stage it sits in the process
- Have a mix of **both indoor and outdoor activities**
- Ensure each venue is **fit for purpose**
- While the popular ideas are important **don't lose sight of "second tier" ideas of merit**
- Keep presentations **brief** and **to the point**
- Ensure that **everyone** gets an **opportunity to contribute**
- Maintain a mix of **fast activities** and those that **allow time for contemplation and reflection**
- **Check in regularly** with participants
- Get the **ideas clear first**, worry about the **specific wording later**
- **Include active activities** to get people out of their chairs
- Have a **scribe in each group** to document
- Use the **previous activity** as **building blocks for the next**

AGILE

When: you want to empower people and teams to experiment and continuously improve
Who: everyone

In a world that is increasingly volatile, uncertain, complex and ambiguous, Agile enables organisations to master continuous change. It is centered around 12 principles and the four values of the Agile Manifesto.

Agile is a mindset, it isn't just a methodology to be implemented within the existing management framework. Agile organisations are constantly growing, learning and adapting to respond to shifting needs and emerging opportunities. Agile teams are given autonomy to self-organize, and are encouraged to experiment and collaborate to enhance individuals and organizational capacity and impact.

Agile values transparency and continuous improvement and recognizes that open interactive conversations are more valuable than top-down directives. In an Agile team the key to success is to generate more value sooner by constantly revalidating the priority of the upcoming work to be done.[4]
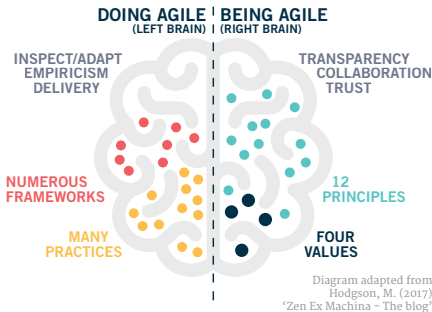
AGILE
DOING AGILE AND BEING AGILE

There are various practices, processes and tools that facilitate teams working in an agile way. Organisations and teams will adopt different frameworks, methodologies and practices to suit

DOING AGILE | **BEING AGILE**
(LEFT BRAIN) | (RIGHT BRAIN)

INSPECT/ADAPT
EMPIRICISM
DELIVERY

TRANSPARENCY
COLLABORATION
TRUST

NUMEROUS
FRAMEWORKS

12
PRINCIPLES

MANY
PRACTICES

FOUR
VALUES

Diagram adapted from
Hodgson, M. (2017)
'Zen Ex Machina - The blog'

their needs and are encouraged to test different practices and tools to see what works. At Australian Red Cross, we typically combine the Agile frameworks known as Scrum (card #04) and Kanban (card #05), giving us our particular recipe for how we do Agile, and how we manage our work.

The Agile manifesto[5]

· **Individuals and interactions** over processes and tools
· **Working product or service** over comprehensive documentation

· **Stakeholder collaboration** over contract negotiation
· **Responding to change** over following a plan

The Agile principles

· Satisfy the customer
· Welcome change
· Deliver frequently
· Work together
· Trust and support
· Face-to-face conversation
· Working solutions

· Sustainable development
· Continuous attention to excellence
· Maintain simplicity
· Self-organisaing teams
· Reflect and adjust

SCRUM

When: you want to employ an iterative and more adaptive way of working

Who: everyone

Scrum is a flavour of Agile, and is a more practice-focused approach to help teams embed the values and principles that sit underneath.

The process involves breaking down each project into prioritised requirements (*tasks*), and delivering prioritised work within an iterative cycle. An iteration is the routine of developing small sections of a project at a time. Goals are set in each iteration meeting and measures put in place to know whether you've met your goals. An iteration is also often referred to as a *sprint*.

It all starts with a *Product Owner*. This is the person who represents the final user's best interest, and has the authority to say what goes into the final product. The Product Owner is in charge of making a prioritised *Backlog*; a list of tasks and requirements the final product needs. You also need a *Team Facilitator* (we like the term "Scrum Master"). The Team Facilitator's job is to help your project team move along through the sprint based on the principles of Scrum, and to remove any impediments or blockers that arise for the team.

SCRUM
SCRUM RITUALS

Below is an example of how you might plan your sprint over a fortnight, using Scrum.

Stand-up
- 15 mins maximum, daily
- Covers work done yesterday, work for today and barriers
- Helps you understand your workflow and identify risks

Sprint planning
- Forecasts the next sprint
- Includes insights from previous sprint as inputs
- Results in prioritised sprint backlog

Sprint review
- Occurs at end of each sprint
- Reviews delivered work against sprint backlog

Retrospective
- Focus is not on the work done, but on the way the team works together
- At least once every two sprints

Showcase
- Shows what has been achieved to a wider audience

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
WEEK 1	🗺️	👥	👥	👥	👥
WEEK 2	👥	👥	👥	👥 📋	⚙️ 🎉

KANBAN

When: you want to focus on finishing tasks and want to prioritise quality
Who: everyone

Kanban is a Japanese term loosely translated as 'card you can see'[6]. It is an Agile framework designed for evolutionary, not revolutionary change and it's a great place to start an Agile journey.

Kanban uses a highly visual system to communicate what work needs to be done and when. It hinges on the fundamental truth that you can't get where you want to go without first knowing where you are. It helps teams standardise processes and improve service delivery, reducing waste and maximising value.

Seeing how your work flows within your team's process lets you not only communicate status, but also give and receive context for the work. Kanban takes information that typically would be communicated via words and turns it into a visual story, than can easily be shared and understood.

KANBAN
HOW KANBAN WORKS

1. Visualise work

By creating a visual model of your work and workflow, you can observe the flow of work moving through your Kanban system. Making the work visible—along with blockers, bottlenecks and queues—instantly leads to increased communication and collaboration.

2. Limit work in process

By limiting how much unfinished work is in process, you can reduce the time it takes an item to travel through the Kanban system. You can also avoid problems caused by task switching and reduce the need to constantly re-prioritize items.

3. Focus on flow

By using work-in-process (WIP) limits and developing team-driven policies, you can optimize your Kanban system to improve the flow of work, collect metrics to analyze flow, and even get leading indicators of future problems by analyzing the flow of work.

TO DO	DOING	DONE

4. Continuous improvement

Once your Kanban system is in place, it becomes the cornerstone for a culture of continuous improvement. Teams measure their effectiveness by tracking flow, quality, throughput, lead times and more. Experiments and analysis can change the system to improve the team's effectiveness.

Pro tip

Multitasking is a myth and context switching results in waste. By adding just one extra project to your workload, you lose 20% of your time switching context. By the time you add a third project to the mix, nearly half your time is wasted in task switching[7].

LEAN

When: you need to optimise the flow of products and services through entire value streams
Who: everyone

At its core, adopting **lean** creates more value for users, with fewer resources. To be a lean organisation, you need to understand what value looks like for users of products and services, and then focus key processes on continuously increasing that value.

In order to accomplish the goals of **lean**, focus needs to switch from isolated efforts to increase efficiency in separate bodies of work (technologies, processes, assets) to optimising the entire flow of products and services across departments directly to users.

Eliminating waste at isolated points in the process can seem like a good idea, but eliminating waste across the entire value stream results in your operations requiring less human effort, less physical space, less expenditure and less time in producing products and services, with fewer issues at a lower cost. That is what **lean** is all about.

LEAN
D.O.W.N.T.I.M.E.

The 8 wastes of lean, known as "D.O.W.N.T.I.M.E."[8], are process obstacles that get in the way of providing value to users. Avoiding these wastes is the key to working lean.

1. Defects

Products or services that are out of specification that require resources to correct. Avoid defects with better quality controls and standardised work plans.

2. Overproduction

Producing too much of a product before it is ready to be sold. Avoid overproduction by establishing a work flow that is reasonable and focuses on benefit for users.

3. Waiting

Caused whenever work has to stop in order for a previous step to complete. Adequate planning and staffing can help avoid waiting issues.

4. Not utilising talent

This comes from ignoring or under-utilising peoples' pre-existing talents, skills and knowledge.

5. Transportation

Waste can be caused by moving things around, leading to increased costs and wasting of time. Simplified processes and physical improvements can help.

6. Inventory excess

Excess assets or information that are sitting idle.

7. Motion

People, information or equipment making unnecessary motion due to workspace layout, ergonomic issues or searching for misplaced items.

8. Extra processing

Performing any activity that is not necessary to produce a functioning product or service.

Pro tip
The first step in eliminating waste is to map the processes within the organisation, department, and team, and look for signs of these types of waste.

LEAN START-UP

When: you want to get the highest value version of a product or service into a user's hands faster

Who: everyone

Lean start-up is a system for developing a business or product in the most efficient way possible to reduce the risk of failure.

It is a principled approach to new product and service development which teaches you how to steer, when to turn, and when to persevere. Used well, it will help you grow your product or service with maximum acceleration. The approach relies on scientific experimentation, iterative product releases, and user feedback to arrive at validated learnings.

Lean start-up is used to:

- Find a problem worth solving, then define a solution

- Engage your users throughout the development cycle

- Continually test your solution with smaller, faster iterations

- Build a feature, measure user response, and validate or refute the direction

- Know when to "pivot", based on evidence, by changing your plan's course

- Maximise your efforts for speed, learning and focus

LEAN START-UP
BUILD-MEASURE-LEARN LOOP[9]

We're used to going from idea to product to data. But we need to build, measure and learn in order to do it well.

Ideas will carry assumptions about how your product or service might be improved.

Build a *minimum viable product* to test these assumptions.

Measure how customers respond to what you built based on *actionable metrics*.

Diagram adapted from Ries, E. (2011) 'The Lean Startup,' New York: Crown Business.

Learn by rigorously analysing your product, user feedback and metrics, to inform whether you need to *pivot* or *persevere*.

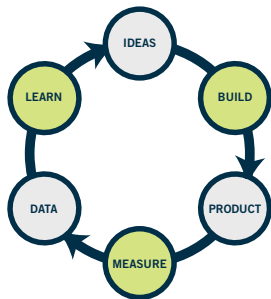### Minimum viable product

A version of a product developed with sufficient features to satisfy early adopters. The final set of features is only designed and developed after considering feedback from the initial users.

Pivot

A change in direction requiring the investigation of new ideas underpinned by new assumptions.

Persevere

Continue to test more of your assumptions and build towards executing your current vision.

Validated learning

Learning that is produced from the build-measure-learn feedback loop, gained from actionable metrics, getting to know customers and what works.

Actionable metrics

A metric that ties specific and repeatable actions to observed results. Knowing that something has increased, improved or changed without knowing why is a "vanity metric". Knowing why things have happened and what you did to create them makes an actionable metric.

VALUE PROPOSITION DESIGN

🕐🕐🕐 ▬▬■

When: you need to test assumptions about your users and what you're building for them, and find the fit between user needs and product/service offerings

Who: everyone

A value proposition is a promise or statement that outlines why someone should use your product or service. Value proposition design (VPD), a term popularised by Strategyzer[10], is about applying tools that allow you to better navigate the search for products and services that align with the needs of target users.

At its core, VPD is a simple and practical way to rapidly sketch out what you are building and why you are building it. It helps you uncover the assumptions you might be making about the product or service you are building, and the assumptions you might be making about the people you are building for.

The first tool in the VPD arsenal is the value proposition design canvas; designed to help you visualise your observations about user needs and desires; and visualise the kinds of benefits that are being proposed to deliver value to users.

Pro tip
Great value propositions don't address every identified user pain or offer every desired user gain; they focus on the most extreme pains and most essential gains.

VALUE PROPOSITION DESIGN
CANVAS

- -

The VPD canvas has two sides. With the customer profile, you clarify your understanding of your users. With the value map, you describe how you intend to create value for that customer. You achieve fit when proposed value is aligned to user needs.
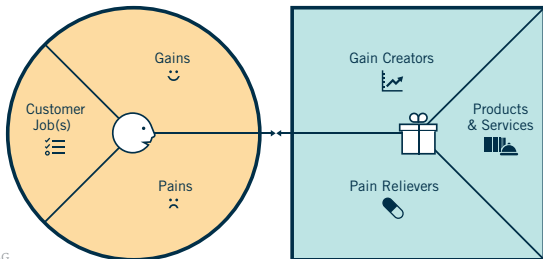
© Strategyzer AG

User profile (card #30)

1. Jobs

Things a user needs to get done in their life. May be functional, social or emotional.

2. Pains

Things that annoy users while getting a job done, or stops them doing a job altogether.

3. Gains

Positive outcomes and benefits users want from performing a job well.

Feature value map (card #44)

1. Products & services

A list of the offerings you are making to the user. These could be physical, digital, intangible and financial.

2. Pain relievers

How you intend to reduce annoyances and alleviate blockers for users getting a job done.

3. Gain creators

How you intend to create relevant user gains that a user may expect, desire or be surprised by.

EXPLORE

Unfold your map, gather your team, fuel
your tanks and chart a course from problem
to prototype, learning everything you can
about the people you involve in the journey.

EXPLORE

THE PROBLEM
FRAME YOUR DESIGN CHALLENGE

When: starting a new project and you need to articulate the challenge you want to address

Who: project team, key decision makers

Framing your design challenge[11] is perhaps the most crucial first step of any design project. It will help you get started in the right way, organise your understanding and your thoughts about the problem space, and ensure you're aligning your possible solution with actual need.

It's helpful to think of the **who**, **what**, **why** and **where**[12] of your problem to begin with, and then move on to framing, and reframing, your understanding of the problem.

The activity on the back of this card will help you consider some of the most important questions in framing your challenge: does it drive toward ultimate impact, allow for a variety of solutions, and take context into account? After considering these questions, you'll be well-placed to refine your framing as a "how might we… so that…" statement and ultimately get excited about tackling the problem.

Pro tip
Avoid settling on multiple statements that attempt to frame your challenge. Ensure you all agree on a single challenge statement.

Related to: Lightning talks / Group feedback / Extract your hypotheses / Lean Canvas / Goals, Signals, Measures / Knowns & unknowns / Abstraction laddering

THE PROBLEM
FRAME YOUR DESIGN CHALLENGE

1. Discuss and take notes

As a team, discuss the following questions and take notes on post-it notes.

- **Who** actually has this problem, and is the framing of this problem real for them?
- **What** is the nature of the problem, and is there research or supporting evidence for this?
- **Why** is the problem worth solving, and will it create impact?
- **Where** does the problem arise, and has it been observed in this context?

2. Draw up a quadrant and assess the best responses

Label each quadrant Who, What, Why and Where. Get the team to populate each with their best post-it notes, then vote on them.

3. Try to frame the problem as a design question

These questions typically begin with "How might we…"

4. Write down the impact you're aiming for

What's the tangible outcome you want to achieve?

5. Quickly find five early solution ideas

Brainstorming early ideas helps you see if you're on the right path.

6. Write down the context and constraints

What are the parameters you need to work within?

7. Tweak your original design question

Based on the intended impact, and the known context and constraints, reframe your original design question as a "how might we… so that…" statement.

Example
How might we provide tangible activities and techniques to Red Cross people, so that they feel confident and inspired to embrace new ways of working?

THE PROBLEM
KNOWNS & UNKNOWNS

When: you're framing your problem and planning how to go about informing yourself

Who: project team, research team

A renowned American politician once uttered the musing "there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say, we know there are some things we do not know. But there are also unknown unknowns – the ones we don't know we don't know"[13].

The idea of *unknown unknowns* was created in 1955 by two American psychologists, Joseph Luft and Harrington Ingram, leading to a model called the *Johari window*[14]. This model can be invaluable for understanding and framing your design challenge (card #09). You can use this model to document evidence you need to gather, questions that you need to ask, other sources of information, and surprising 'aha!' moments you might encounter.

- -

Example: *Carolyn is about to lead a team through research into humanitarian attitudes and behaviours in Australia. She will use **Knowns & Unknowns** to work with her team to know where we have evidence and knowledge, and where we need to learn more.*
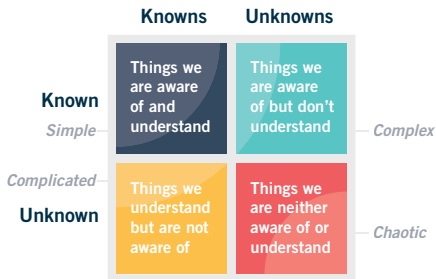
THE PROBLEM
KNOWNS & UNKNOWNS

- -

1. **Create the window**

Draw a 2x2 matrix on a large sheet of paper or white-board. Label the top row "known" and the bottom row "unknown". Label the left column "knowns" and the right column "unknowns".

	Knowns	**Unknowns**
Known *Simple*	Things we are aware of and understand	Things we are aware of but don't understand *Complex*
Complicated **Unknown**	Things we understand but are not aware of	Things we are neither aware of or understand *Chaotic*

2. **Known knowns: existing evidence and information**

In the top-left box, use post-it notes to document things you are certain of, gathered evidence you can rely upon and existing information you can leverage. Start each with "we know...".

3. **Known unknowns: questions to be answered**

In the top-right box, use post-it notes to document questions you want answered, assumptions you need to validate, and ideas you want to challenge. Start these with "We don't know..." or "We want to know..." or "We want to ask...".

4. **Unknown knowns: additional information and similar contexts**

In the bottom-left box, use post-it notes to document other data/insights/information that could be leveraged, other products/services that operate in the same context you could learn from, and previously unused information.

5. **Unknown unknowns: the "aha!" moments**

In the bottom-right box, and only after filling all the other boxes, use post-it notes to document anything that has surprised you, something you didn't realise, or something you didn't know you knew. This could also be a good space to document anything that you predict might come along to inform your project, that you're not yet aware of or don't understand fully.

THE PROBLEM
THE FIVE COMPETITIVE FORCES

When: you need to understand the external forces that may affect how you are able to deliver your project

Who: design team, project team, core stakeholders

Having a good strategy behind a product or service means understanding the competitive forces that could impact on the effective delivery of this product or service. Michael E. Porter, of Harvard Business School, first wrote about **five competitive forces** that need to shape strategy back in 1979[15].

Today, businesses use his model as a means of understanding how to drive profitability – and ultimately their competitive advantage. But Porter's five forces are just as relevant for the not-for-profit sector.

Where Porter's model traditionally looks at the way competitive forces can affect profit, in the not-for-profit adaptation it is more concerned with how these forces can impact on an organisation's ability to perform its mission effectively and efficiently[16].

- -

Example: *Kalene is about to kick-off a project that will aim to attract 10,000 more volunteers to Red Cross. She needs to understand all of the forces that could affect this outcome.*

Related to: Find your innovation niche / Lean canvas / Desirability, feasibility, viability / Marketing plan

THE FIVE COMPETITIVE FORCES[17]

Porter's five competitive forces are entirely relevant in a not-for-profit project; the main difference is that the goal is to provide an effective solution to the people you are serving, rather than just making a profit.

## 1. Bargaining power of suppliers

How much influence do contractors, partners, service providers and suppliers have over the project's ability to deliver? The more central to the project, the more power that supplier will have.

2. Bargaining power of funders

Whether funds are provided by individual donors, corporate partners or grants, if they can get a similar or superior outcome from another provider, they may well "buy" into that offering instead.

3. Threat of new entrants

Loyalty of donors, or high fixed costs can detract new players offering the same service, but if the demand is high and costs of entry are manageable, new organisations and programs may disrupt your offering.
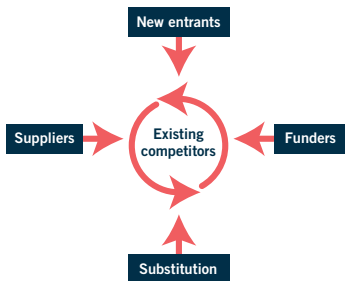
4. Threat of substitution

How likely is it that either your funders, or the people you are aiming to serve, will switch to a competitor? Take time to understand if there are similar offerings in your project space.

5. Existing competitors

There are more than 54,000 charities registered with the Australian Charities and Not-for-profits Commission, and countless more communities leveraging their own skill-sets and expertise to solve humanitarian problems. How many of these are we already competing with in the offering of our products and services?

THE PROBLEM
IN OR OUT
OF SCOPE?

When: you need to understand the expectations of senior stakeholders

Who: senior stakeholders, project team, approvers

Ever heard of the term "scope creep"? It's the enemy of deadlines, budgets and happy stakeholders. If there is any ambiguity over the expectation of project stakeholders, it's time to determine what's **in and out of scope** together, and to do it sooner rather than later.

While an ideal activity to run right at the beginning of a project, you can also use this at any phase to reset the objectives, or adapt to changing circumstances. Use it whenever you find a disconnect between the expectations of stakeholders, approvers and the project team.

- -

Example: *John is in the early stages of a project, where a new service at Red Cross is likely to be the outcome. He needs to know from project sponsors if that service could include an online component, could replace an existing service, can access previous donors, and can use a partner organisation's databases.*

Related to: Trade-off sliders / Roadmaps / Moscow method / Capabilities assessment

THE PROBLEM
IN OR OUT OF SCOPE?

1. List the overall project objectives

Try and prioritise these in a list on paper. Ideally, there will be less than five overall objectives.

2. Capture all possible project requirements and activities

Use post-it notes, and get them up on a wall so they can be viewed by the team at a glance.

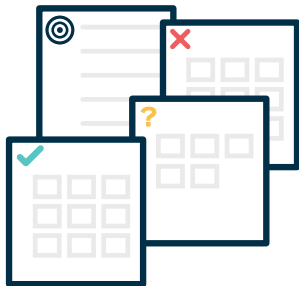**3. Sort the requirements and activities into two categories: IN or OUT**

Liaise with the team and stakeholders present, and ensure there is time to explain the sorting of each post-it.

4. Leave a space for contested post-its

There won't always be a consensus for each item. Make sure there is a place to park the ambiguous post-its.

5. Capture additional requirements and activities as they arise and sort them

The conversation will often lead to uncovering previously unconsidered requirements or activities. Place them into the chosen category as they arise.

6. Assess the current scope and seek agreement

Ensure that senior stakeholders and approvers review the resulting categorisation, and seek their agreement on the scope.

Pro tip
If there are too many post-its in the "ambiguous" pile, this may be a sign of strategic ambiguity that needs to be resolved.

THE PROBLEM
TRADE-OFF SLIDERS

When: you need to understand the relative importance of competing project parameters like timings, cost and quality

Who: project team, stakeholders

Unfortunately, it's almost impossible to have a project that doesn't require a compromise on at least one area of the work; whether that be budget, timing, quality or security. **Trade−off sliders**[18] will give you a way of understanding the importance of each of these metrics, and which ones are more likely to be flexible.

The advantage of this activity is that it can visually demonstrate the relative importance of all of the factors you're considering, and it enforces the idea that the factors can't have their weight adjusted without affecting the others.

- -

Example: *Rebecca is set to deliver a new initiative that has secured Board approval to be delivered on a set date, with budget allocated from the Executive team. She needs to understand if this budget is fixed or flexible, how this might affect quality of the outcome, and what her senior approvers consider the least negotiable metrics. She also needs a means of demonstrating that when some metrics are fixed, others must become negotiable.*

Related to: In or out of scope? / Prioritising ideas / Group feedback / Moscow method

THE PROBLEM
TRADE-OFF SLIDERS

1. Identify the metrics of your project

The basic metrics are usually time, scope, budget and quality. Others could be scalability, security or usability.

2. Create the scales

Create a visual bar for each of your metrics, labeling the extreme ends as "most negotiable" and "least negotiable".

3. Discuss any independencies and dependencies

Are your delivery dates fixed due to a marketing campaign? Is there additional budget available? Are quality and security mutually inclusive?

4. Silent group voting

Have your team all decide silently where they would set each scale, then allow each team member to place their nominated position for each slider without discussion.

5. Slide the scales around in group discussion

Allow team members to explain any sliders that have varied placements. Move the scales according to group consensus.

6. Record the final scale placement

Ensure that the team agrees on the final scale placement, then ensure this is documented and circulated to the team.

Pro tip
Use a different color post-it note or sticker for each person so it's easy for everyone to see and remember where they placed their sliders.

Pro tip
You can't have all of your sliders fixed to "least negotiable", the more one metric moves towards "least negotiable", the more another may have to move towards "most negotiable".

THE PEOPLE
RELATIONSHIP MAPPING

When: you need to understand who your users and stakeholders are, and the relationships they have in your project context

Who: project team, users, experts

Early on, you'll likely have more questions than answers about the people you're designing for, but you should have some sense of their needs and their context. Gaining an early understanding of other stakeholders involved in your project will also be crucial to your project's success.

An important tool in documenting your users and stakeholders is a **relationship map** (sometimes referred to as a "stakeholder map"[19]), which helps you understand the interplay between the various groups.

- -

Example: *Jana has begun a complex project involving partner organisations and service providers, colleagues across multiple Red Cross departments, state and federal government representatives, and a diverse group of users. She needs an easy way of visualising where relationships exist between these groups of people, the quality of these relationships, and the flow of interaction between them. This will help her know where collaboration will be easy and where it will need work.*

THE PEOPLE
RELATIONSHIP MAPPING

1. **Draw up a comprehensive list of stakeholders**

List every group who will have a touch-point with your product and service. Include their interests and motivations.

2. **Create the map**

A relationship map involves the use of concentric layers, with each layer representing a level of involvement, engagement or closeness. At the centre could be the user, or the product/service.

**3.** **Place the stakeholders on the map**

The layer in which you place the stakeholders may speak to their closeness to the core user, or to your product/service.

Download
Find a relationship map template here:
http://rcau.click/relationship-map

Pro tip
Use a legend to code the types of connections that might exist. Are they positive or negative? Are they one-way or reciprocal?
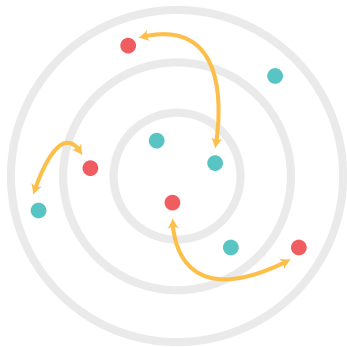
4. **Note the key relationships**

Visually connect the various stakeholders to represent key relationships. Note whether these are positive or negative.

5. **Highlight any assumptions or points for discovery**

Exercises like these can raise important questions to be explored with other tools in the *Explore* phase. Do you need to understand a particular group's needs further? What have you realised you're assuming about people without validating those assumptions? Be sure to highlight them.

THE PEOPLE
D.A.C.I.
FRAMEWORK

When: you need to gain a shared understanding of decisions being made for your project

Who: project team, internal stakeholders

You might have heard of the R.A.C.I. framework in the past; in which people are assigned as **responsible**, **accountable**, **consulted** or **informed**. The **D.A.C.I. framework** brings many of the same advantages, but adds some much-needed shape to how decisions can be made throughout the project[20]. Use a D.A.C.I. framework to assign overall tasks and to document important decisions.

- -

Example: *Milla is running a cross-functional project that includes team members across various Red Cross teams and departments that she hasn't worked with before. Each of these teams and departments has their own senior approvers and interested parties. She needs to define who are the ultimate drivers and approvers for decisions on her project, as opposed to those that are best placed to contribute, and those that simply need to be informed of progress.*

Related to: Relationship mapping / Roadmaps / Capabilities assessment

THE PEOPLE
D.A.C.I. FRAMEWORK

D = Driver

The **one** person responsible for overall coordination, communication and clarity on the task or decision.

A = Approver

The one person responsible for certain decisions or approvals on certain project tasks.

C = Contributors

The people with knowledge or expertise that the driver needs to call upon for a certain task or decision.

I = Informed

The people who have a desire or responsibility to be informed about the progress of a task or decision.

C	D	C	A	I
I	C	D	A	C
A	I	C	I	D
C	D		A	I

D.A.C.I. for project task roles

1. List all project tasks as rows

Make sure to cover all possible roles and responsibilities on the project.

2. List all personnel as columns

These can be the names of project roles or actual people.

3. Assign the D.A.C.I. roles for each

Make sure your project personnel agree with the roles they're assigned. Remember, there should only be one Driver and one Approver per task.

Pro tip

The D.A.C.I. framework is highly useful for making tough decisions. When faced with such a decision, define one Driver and one Approver, with Contributors adding expertise and context, and the Informed group being made aware of the decision outcome.

Read more

How to use the D.A.C.I. framework for decisions: http://rcau.click/daci-framework

SERVICE EXPLORER

When: you need a deeper understanding of your own service, similar services or those of competitors

Who: research team

Service exploration (sometimes called a "service safari"[21]) is just what it sounds like; a chance to examine the offering of services to a group of users out in the wild. It's a great means of sorting good and bad examples of service experiences. Learning from existing experiences is the cheapest and easiest way to ensure your new service starts off on the right foot.

You can use this activity to explore other services being offered within the organisation, or similar services to the one you're designing offered by other players in the sector. It can also be useful in exploring analogous or unrelated service areas that you know to either perform strongly, or conversely, disappoint users.

- -

Example: *David has been asked to re-imagine the booking process for courses provided by Red Cross. Before he can begin, he needs to understand the current process from the user's perspective.*

RESEARCH
SERVICE EXPLORER

1. Brief the research team

Anyone can be invited to join a service exploration. They just need to be inquisitive and curious, and able to document findings. Brief the team on their objective; are they investigating a service we already deliver? Or competing services? Or services in an analogous space?

2. Write and distribute the service exploration guide

You'll get better results with a defined set of objectives and questions for the exploration. What questions do you need answered? How are people feeling while experiencing the service? What offers are there to follow-up?

3. Distribute the research tools

Ensure the participants have the right tools for capturing their experience and insights: a smart-phone could be great for capturing sound and visuals, or a notebook and pen if you want a simpler approach.

4. Go out and explore

Ensure the participants take their guide and their research tools, and ask them to assume the role of service user. The added advantage here is that your team will build empathy for the users they will eventually be designing for.

Pro tip

Try exploring services in pairs. One person can role play the user, the other can make observations and look for the less obvious aspects on offer.

RESEARCH
DIARY STUDIES

When: you want an intimate understanding of users in their own words

Who: users, research participants

Diary studies (sometimes called "cultural probes"[22]) are a powerful way to gather information about your target users. They require the participation of the audience you are researching, and rely entirely on self-documentation. If given enough time to complete the diary study, your participants may reveal rich information to inform your way forward.

The most important aspect of this activity is the support you offer to the participants. Maintain regular contact, and ensure you are receiving inputs regularly. Be supportive of any participants who need extra assistance, and ensure you are encouraging and reassuring.

- -

Example: *Spencer and Lucia are working with young people in Aboriginal communities across multiple locations, and want to understand how they feel about access to employment opportunities. They decide that an engaging and empowering way of having the participants' voices heard is to allow them to document their own experiences.*

Related to: Service explorer / Contextual interviews / Peer observation

RESEARCH
DIARY STUDIES

1. **Determine the scope of what you need to learn from your participants**

What are you looking for? Are you validating assumptions? Looking for gaps you didn't know were there? Make sure you know what you want to learn before you get started.

2. **Get your participants together for a briefing**

It's important that your audience understand what they're expected to do, and when. They should also know how their information will be used. Brief them about the requirement to record or note specific events, feelings or interactions over a specified period. Explain that they will be required to self-document, and that they will hear from you periodically with new instructions.

3. **Supply the probe tools**

This could be as simple as a diary or worksheet, or may involve tools like disposable cameras or use of a smart-phone. For best results, it's recommended to provide probe instructions to the participants. This may include a schedule for reporting back to you.

4. **Maintain a line of communication about the probe**

You can still direct the diary study after it has commenced. Typically this can be done by email or text message. This allows you to update instructions or tailor the direction based on the feedback you are receiving.

5. **Collate your findings**

Gather your learnings and structure the insights. Make sure you pay attention to what the probe has shown you about peoples' beliefs and desires.

6. **Debrief with participants**

A debriefing session helps supplement and validate your findings.

Pro tip
A great way to ensure your participant group remains engaged is to hold a follow-up debriefing session.

RESEARCH
LIGHTNING TALKS

When: you need to understand what has already been learned about your problem space, and what can inform your project moving forward

Who: project team, subject matter experts

Promoted by Google Ventures in their Design Sprint Kit[23], **lightning talks** provide an opportunity to quickly explore the problem space from all angles. You can use lightning talks to hear from subject matter experts both within the organisation and from outside. It's a great chance to get your team across what we know, what we've attempted before, what's been done elsewhere, and what's in scope for the way forward.

Spend up to half a day hearing lightning talks, with each lasting only 10 to 15 minutes. Ideally, you'll use internal project team members alongside external experts to present the content.

- -

Example: *Caitlin and Amber have been exploring the systemic barriers to employment that people with criminal records face. They are holding a rapid design workshop to look at solutions. To set the scene they invite experts in the legislative and policy space, employers and people with lived experience to speak to the group on their experience and perspectives.*

Related to: Frame your design challenge / Relationship mapping / Brainstorm

LIGHTNING TALKS

1. Determine the location, assign a facilitator and equip the room

Choose a location that will comfortably fit your audience and provide the right environment. This may mean wall space for posters, projectors and AV equipment, or white-boards and drawing surfaces.

2. Determine which topics are relevant for your challenge.

Make sure the topics are relevant to the project, and that you have experts in mind who could deliver on these topic areas.

Topics may include:

- Project vision and goals
- User and audience research
- Competitor landscape
- Results of previous testing
- Technology considerations
- Radical approaches

3. Identify speakers for each topic and explain their time limits.

Having key team members hold lightning talks gives people a voice and a chance to share the knowledge they've built up. And the external experts can introduce fresh perspectives.

4. Collate all materials for supporting the presentations.

Most lightning talks will likely be supported by slide-show presentations, but large format posters for the room can also be a good idea to help remind attendees of the most important points. Consider supplying any digital assets to attendees either before or after the talks are held.

Pro tip

Use pre-reading materials wisely. Sometimes, it can be appropriate to distribute documentation that provides greater context before the lightning talks are conducted. Make sure this material is of secondary, rather than primary, importance to the content of the talk.

RESEARCH

USER JOURNEY MAP

When: you want to understand an existing user journey from a specific persona's perspective, in order to find opportunities for improvement

Who: users, project team

Journey mapping[24] is the ideal tool to help you visualise how your users currently interact with an existing product or service, and how they might be feeling at each point along their journey – so that you can identify opportunities for improvement.

A journey map is usually created for each of your personas (card #27), and will help you consider how people become aware of your product or services, at which point they decide to interact with it, what happens the first time they do, what brings them back, and what the ultimate impact of the solution might be. It will allow you to uncover the moments of interaction you have available to you, called *touch-points*, and crucially, it overlays each of these moments with the emotions a person might be feeling as they experience them.

- -

Example: *Dion, Adina and Stephen have all been undertaking extensive research of online donors. They now need a means of visualising how that experience looks from start to finish, where the users runs into obstacles, and where there are opportunities for improvement.*

...

RESEARCH
USER JOURNEY MAP
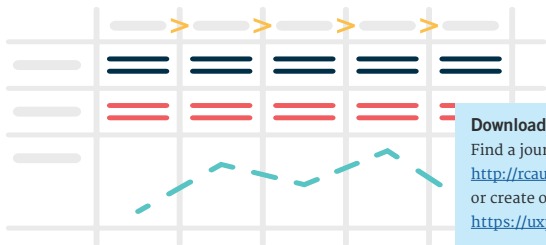
Download
Find a journey map template here:
http://rcau.click/user-journey-map
or create one online here:
https://uxpressia.com

1. Define your user persona or segment
Focus on a single user group in a particular context when pursuing a single outcome or goal. Group users in a way that brings together similar needs, pains or goals.

2. Set user journey stages (first row)
Begin with the point at which the user becomes aware of the product or service, and when they either depart, cycle back, or move on to a different journey.

3. Set user needs and goals (second row)
Set a user need and goal for each stage to help you understand how the business goals of the product or service currently align with user needs and goals.

4. Define touch-points (third row)
Touch-points are moments when your users encounter your product or service along their journey.

5. Define processes and channels (fourth row)
Which channels or processes does the persona use along their journey?

6. Problems and ideas (fifth row)
Where are the user's pain points or problems along the journey?

7. Emotional sentiment graph (sixth row)
Visualise the user's emotional mood along their journey. When are they satisfied or disappointed?

8. Review and seek opportunities
Improving the journey where gaps exist is core to this activity.

RESEARCH
ABSTRACTION LADDERING

When: you've uncovered user needs or problem statements and need to understand why they occur, and how you might solve them

Who: research team, design team

It's one thing to understand the needs of your users, it can be another thing altogether to understand the why behind a need, or the how of solving it meaningfully. Abstraction laddering[25] (sometimes called how/why laddering[26]) provides a framework that helps us develop the right questions in learning about the more abstract reasons behind specific needs, and the more concrete paths we might take towards solving those needs.

We begin by placing the specific user need we are investigating at the centre (like "I want an easy way to create an emergency plan"). We climb up the ladder as we ask more "why?" questions towards the very abstract motivations behind behaviour (like "I want to be safe"). We climb down the ladder as we ask more "how?" questions towards the very concrete solutions we may offer (like "I want a free smart-phone app"). Move up or down the ladder until you're satisfied you've covered all aspects of the need.

- -

Related to: Frame your design challenge / Contextual interviews / Speed boat / Buy a feature

ABSTRACTION LADDERING

## Begin with a core user need or problem statement

This statement will sit at the middle of the theoretical "ladder". You'll be moving "up" the ladder by exploring the "why", and "down" the ladder by exploring the "how".

"Climbing" the abstraction ladder

Knowing that your users have a need or problem is core to a good design process, but understanding the less-than-obvious forces behind this need requires you to move "up" the ladder by delving into the why, and the why behind that why. Do this for each "why" you uncover at each layer. Stop when you reach a very general, abstract idea.

"How might we?" after climbing

Some of these "whys" will set you up for valuable framings of your design challenge (card #09). Rephrase these "whys" as "how might we…" statements.

Why?	Why?	Why?
Why?	Why?	Why?

User need

How?	How?	How?
How?	How?	How?
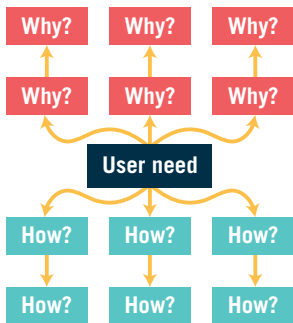
Download
Find an abstraction ladder template here:
http://rcau.click/abstraction-ladder

"Descending" the abstraction ladder

In order to conceptualise concrete solutions to the given user need or problem, you need to move "down" the ladder by investigating "how" users might solve this problem. You may need to descend a couple of rungs until you find a concrete enough "how" that hints towards your solution. Stop when you reach a very tangible, concrete solution idea.

RESEARCH
CONTEXTUAL INTERVIEWS

When: you want to deep dive into the lives of your users as you interview them

Who: research team

While the concept of an interview may be nothing new, the distinct benefit of **contextual interviews**[27] is that they happen in the environment and context of the users you're trying to understand. This could be their home, workplace or other environment relevant to your design challenge. This technique allows you to learn about a person's mindset, behaviour and lifestyle as you gather interview insights.

It's crucially important to be sensitive to the unique background and experiences of your participants in this activity. What can you bring from your cultural awareness training into these interviews? Are there particularly sensitive topics that may trigger people in vulnerable situations? Consider attributes like gender, cultural background and religious affiliations when determining who you will assign to interviewing your participants, and how many interviewers is an appropriate number. While it's important to extract honest, valuable insights from participants, this should never be at the expense of their safety or comfort.

Related to: Knowns & unknowns / Diary studies / Service explorer / Abstraction laddering / Immersion / Personas / Empathy maps / Co-design session

RESEARCH
CONTEXTUAL INTERVIEWS

1. **Source users to interview**

Ensure you understand some of the attributes of the users you want (age, gender, location etc.). Make sure there is diversity and true representation in the group. Then, try and source these users to interview. We may already have access to users through our networks and colleagues, or you might need to work with a recruitment agency.

2. **Assemble the interview team**

As you assemble the team, consider factors like availability and location. You'll need at least one interviewer and one observer per interview. You might consider a third person to capture images and additional notes.

3. **Create an interview script**

Your research team will use this to capture comparable insights from all interview participants. Ensure that the script uses plenty of open questions.

4. **Conduct the interviews**

The first focus is to make your participants comfortable. Explain why you are there and why you want honest and open answers from them. Start with broad questions before narrowing in on questions relevant to your design challenge. Write down exactly what they say, not what you infer. Observers should focus on observing details about the user's context, along with non-verbal cues like body language as the interview progresses.

5. **Document and share interview data**

Ensure there is a centralised point for sharing the results of interviews with the wider team. This could be a physical wall, a meeting or a digital channel. Properly documented interviews will make the job of extracting insights easier.

Interview technique: "The five whys"[28]

You can learn a lot about a person's deep motivations and assumptions by using the "five whys" technique. This technique requires you to follow-up with a "why" question after a particular answer five times over, drilling deeper to uncover the real issue.

OBSERVATION
CARD SORTING

When: you have a large body of content that needs sorting into overarching themes, groups or categories

Who: test users, research team

Card sorting[29] is a quick and effective technique for designing information architecture, service models, work-flows and hierarchies. The key advantage of card sorting is that it relies on users themselves to sort the information provided. From this sorting, you will recognise patterns and repeating concepts, allowing you to design a solution that will be understood by the majority of your users.

Card sorting also helps you understand what is of highest priority or most importance to your users. While using this technique, pay particular attention to conversations that arise around the values that users hold. This can be where some of the gold is found.

- -

Example: *Bec and her team are designing an app that enables people with mental health concerns to build a team of supporters around them. They think of the functions that the app could do, then show these to people who might use the app and ask them to rank the functions in terms of priority.*

Related to: Speed boat / Validated user profile

OBSERVATION
CARD SORTING

1. Source your test users

Card sorting has the advantage of being easily executed on digital platforms, so the location of your test audience is not necessarily a dependency. Source people who represent the personas (card #27) and segments you are designing for.

2. Create your cards

Your cards might contain a single word, a phrase, or even an image or diagram. Make sure you only convey one item per card. If needed, add some more abstract or creatively written cards into the mix (like values, fears or goals), if they will help with understanding your audience better.

3. Distribute the cards and provide instructions

Get the cards in front of your test audience. You might be asking them to sort the cards based on logic (what naturally fits where), importance (what matters most), preference (what is liked more) or other categories.

4. Analyse the results

Depending on the size of the audience and the way the cards have been distributed, you might have a large amount of data to sort through. Find a means of visually sorting your results where possible. It can be as simple as clustering grouped cards under category headings, or going as far as creating tree diagrams or similarity matrices[30] that show the underlying structure of the results.

Pro tip

Card sorting doesn't just have to be about the sorting of words and concepts. For example, collaging could be an engaging way to let your users group ideas and concepts.

OBSERVATION
PEER OBSERVATION

When: you have highly engaged test users that you want to learn more about through active participation in the process

Who: test users, research team

When working directly with the people you're designing for, you will often find that they are keen to get more directly involved in the research and design process. This is the perfect opportunity to draw on their lived experience and invite them to join your research team as **observers of their peers**[31].

For many participants, this is an empowering idea. It allows them to take real ownership over the observation process, and contribute towards a solution in a meaningful way. The value to your team will be two-fold; they will bring diversity and new perspectives to your insights and learnings, and you'll in-turn learn more about their beliefs, behaviours and motivations as they report back.

- -

Example: *Ramesh and Sonya want to ensure that they include their users in exploring the idea of an improved service in a regional area. They can see the strong relationships their users already have with each other, so they ask them to become observers. For Ramesh and Sonya, this will have the added benefit of allowing honest and transparent research results.*

Related to: Cultural probes / Service explorer / Co-design session

OBSERVATION
PEER OBSERVATION

1. **Decide on the style of observation you need**

Will your users be interviewing others? Or simply documenting what they see? What tools and devices will you ask them to use?

2. **Equip your observers and brief them**

Remember, your users will likely not be used to the process of design research. Give them a thorough understanding of what you need from them. Don't make it too hard; the real value is in illiciting honest opinions and thoughts. Provide them with any tools they might need: cameras, supplies, instructions.

3. **Check-in and provide support regularly**

Be available to answer questions, give guidance, or reiterate instructions as necessary. Remember to repeat that there are no wrong answers, that you just want any thoughts and opinions that they collect as they are observing.

4. **Collect the observations and interview your user**

It's time to put your interviewer hat back on. Ask open questions, listen for the moments that surprised, inspired or challenged your user. What have they learned? What changed in them? Remember, the value in this is two-fold.

5. **Collate and sort the insights you've gathered**

You'll have the insights your users have gathered about their peers, and the insights you've gathered about the users participating as the observers. This will likely be a rich set of data. Be sure to document it properly.

When: you need to learn more about your users than desk research, interviews or basic observation can reveal

Who: test users, research team

Immersion[32] (sometimes called "shadowing"[33]) requires you, as the observer, to surround yourself with the life of your users as much as possible, all the while trying your best not to disrupt or distract them. It can be one of the most effective ways of understanding the behaviour, beliefs and experiences of your users. It gives you the chance to peek behind the scenes, and see how your users live their lives.

Importantly, immersion gives you the opportunity to spot the points at which problems arise for your users. Spending time in your user's environment will allow you to extract insights you'd never have access to through desk research, interviews or out-of-context observation.

- -

Example: *Luca is looking to improve wellbeing for both our case workers and our clients in migrant support. He asks some staff members and some clients if he could spend a day with them, obeserving and taking notes to better understand their experience.*

IMMERSION

1. Plan for an immersion phase early

You'll need enough time and budget built into your project plan to properly recruit participants and undertake immersion activities.

2. Brief your immersion researchers

While immersion activities can be done by an individual researcher, you'll save time and money undertaking the activities as a team. It is crucial to ensure that the team has a shared understanding of what they need to capture.

3. Get immersed

Whether it be a user's home, workplace, school or other location, observe as much as you can. A popular approach is to follow your user for an entire day, gathering insights about them in multiple contexts. Make sure you get a mix of objective details alongside subjective impressions (e.g. objective detail: "subject takes seven minutes performing this task", subjective impression "they seem annoyed and flustered as they complete the task").

4. Regroup and debrief

At the conclusion, bring your immersion team together to share their insights. Look for repeating patterns, and things that are surprising or unexpected. Are there shared problems? What do users have in common with each other?

Pro tip

It's important to avoid the "observer effect", whereby the person you're observing behaves differently knowing that you're watching and documenting. Try your best to avoid as much disruption and distraction to the people you are observing as possible.

OBSERVATION
SPEED BOAT

When: you think you've understood what pains your users have, but need to verify that you have them right

Who: users

While the premise of this activity might seem simple, the results can be powerful. By now, you've probably got some understanding of what challenges the people you're designing for are facing in their lives. But assumption can still be dangerous. These pains are best verified, and this activity[34] gives you an engaging way to do it.

Using the analogy of an anchored **speed boat**, you'll be asking users to define their own pains[35] in the form of a post-it note anchor, and asking them to place the heavier ones deeper in the water. By the end, you'll have an overview of which pains are most extreme in your users' own words.

- -

Example: *Magda has undertaken research into Red Cross volunteers and how they feel about their opportunities, and this has led her to determine an amount of distinct frustrations or pains in their experience. She wants to make sure she doesn't make an assumption on which is most important to find solutions for.*

Related to: Card sorting / Abstraction laddering / Validated user profile / Buy a feature

OBSERVATION
SPEED BOAT

- -

1. Set-up on a wall

Prepare a large poster on a
wall, with an illustration of
a boat floating at the top on
the surface of the water.

**2. Introduce the context to users
and ask them to identify pains**

Set the context of the pains
you are wishing to explore.
Where and when will these
pains be occurring? What are
they attempting to get done?
Get your users to identify
each single pain they face
on individual post-it notes.

3. Place the anchors on the boat

Get your users to take turns placing
their post-it notes as anchors for
the boat. The deeper in the water,
the more extreme that pain. Ask
them to explain their decision as
they place their post-it note.
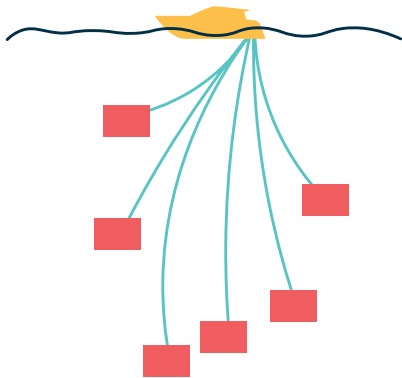
4. Analyse the results

Has this activity raised new pains
you hadn't previously considered?
How does the prioritisation of the
anchors compare to your previous
understanding of user pains?

Pro tip

Elicit concrete and tangible responses
from your test users. If something
is too far, too much, too little, or too
expensive, by how much? What would be
the threshold for resolving this pain?

UNDERSTAND YOUR LEARNINGS

When: you've completed your user research, interviews and observation, and need to collate and make sense of your learnings

Who: research team

Depending on the type of *exploration* you've undertaken, you're likely to have a large amount of data on your users; from handwritten notes and interview transcripts, to photos, videos, audio and maybe even artworks. While this data is valuable, you need to find ways to make sense of it, looking for patterns, themes and stand-out ideas as you go.

There are numerous, different techniques for sorting and analysing results from an exploration phase. It's important to focus on finding ways to share your learnings[36] and inspiring stories[37] with the rest of the team, find themes[38] in those learnings, cluster similar learnings together, and extract the biggest ideas[39] that come from this.

- -

Example: *Jayanthi, Philippe and Rashid have just completed a month's worth of discovery research on public attitudes towards emergencies in Australia. They need to make sense of this data and find overarching patterns and similarities in the findings in order to move forward.*

Related to: Personas / Insights and design principles / Prioritising ideas / Extract your hypotheses

SYNTHESIS
UNDERSTAND YOUR LEARNINGS

- -

1. Download your learnings as a group

Gather your research team and have them take turns sharing their learnings onto individual post-it notes. These could be descriptions of people, what was heard and observed, direct quotes, facts and impressions. It's important to let your team members explain each post-it they record. Cluster the post-it notes together in one area.

2. Move on to the most inspiring stories

Now, have your team take turns retelling the most inspiring stories from their research: who, what, when, where, why and how. Have the other team members record their takeaways from each story onto post-it notes. Gather the post-its for each story together in one area.

3. Find themes through clustering

From the downloading of the initial learnings and the inspiring stories, themes will emerge. Focus on the ones that hint at opportunities for design. Have the team discuss the themes they've observed, arranging and rearranging the post-it notes into groups to match these themes as they go. There's no harm in repeating the clustering activity multiple times, there are many ways to group your findings.

4. Narrow in on the top five ideas

These won't necessarily be the ones you take into ideation and further, but it can be important to give your team the space to write down the top ideas jumping out of the research. Have each team member document their top five ideas on post-it notes and place them on a wall. Once each team member has shared their top five, use a clustering technique again to bring similar ideas together. Look for the patterns and affinities. You might just uncover a solution to your design challenge.

Pro tip
Consider arriving at a "working hypothesis" from this activity. Update it as new concrete learnings surface over the life of the project, and use it as a guiding light to return to if you get swamped with too much data.

SYNTHESIS
PERSONAS

Once you've started uncovering shared traits, preferences and characteristics of certain groups of your users, you need a way to document and communicate these. **Personas** are essentially fictional user profiles that represent certain groups of your users. They will help you and your teammates create empathy with your users, and give you a reference point for generating ideas and challenging assumptions.[40]

Your personas will become the characters you keep referring back to as you delve further into the design process. You'll often find yourself using their names time and time again in discussions. Get to know them well.

- -

Example: *Linnie and Nora have been researching the humanitarian values of Red Cross members and have sorted the people they have researched into six groups. Each of these groups have shared characteristics that Linnie and Nora have decided are important to their project. They need a way to represent these groups as fictional people they can design for.*

SYNTHESIS
PERSONAS

1. Gather and sort your research data

Collate your research findings and sort them into common-sense groupings based on similar traits, experiences or characteristics. Use *understand your learnings* (card #26) to help you. Each of these groups will become a persona, reflecting a common user based on your research.

2. Define the basics

For each persona, define attributes like name, photo, age, marital status, job, income and location.

3. Describe their background

Write down everything you know in detail about your persona's background.

4. Define goals for this persona

What is this persona trying to get done? Defining goals helps you think about whether you can effectively meet this persona's needs.

5. Motivations and frustrations

Going a step beyond goals, documenting motivations and frustrations will help you tailor any solutions more specifically.
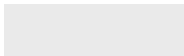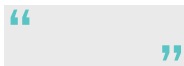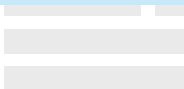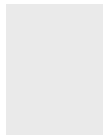
6. Visualise important traits

What personality traits or individual skills are important to understand for your project? Choose the most crucial, and plot where this persona lies on each one, perhaps on a sliding scale.

7. Add the final pieces

What else is important to know about your personas? Do you need to include a meaningful quote? Other images? The car they drive? Their favourite drink? Add any final touches you need.

SYNTHESIS
EMPATHY MAPS

When: you have gathered your learnings and insights, and need to understand the feedback received from your users

Who: research team

Empathy maps are a tool to help you represent the thoughts, actions, opinions and emotions of particular user personas or segments. They are used to help us synthesise our observations and draw out unexpected insights.

Empathy maps consist of four major areas that capture the learnings gathered in the research/observation stages. These areas reflect what the user **says, sees, thinks/feels** and **hears**. It's relatively easy to document what users might have said and done, but it takes careful observation and analysis to know how they thought and felt. Empathy maps help you draw this out.

- -

Example: *Annica has been asked to understand how we can improve the experience for visitors to our North Melbourne reception area. She has researched, interviewed and observed different visitors, and has developed personas to represent them. She now wants to document the full range of sensory experiences for each persona in the space; what they are thinking, feeling, hearing, seeing, saying and doing.*

Related to: Relationship mapping / Contextual interviews / Immersion / Personas

EMPATHY MAPS[41]

1. Create the map layout

Create the map on paper or a white-board for each segment or persona (card #27).

2. Review your notes and observations, and use them to populate the map

WHO is this user? Which persona or customer segment does this map involve? What do we ultimately **WANT** them to do?

Download
Find an empathy map template here:
http://rcau.click/empathy-map

What does the user **SAY**? Their attitude in public, behaviour towards others, how they measure success.

What does the user **SEE**? Their environment, their relationships, and what your problem looks like to them.

What does the user **THINK** and **FEEL**? What are their motivations, their goals, their needs, their desires, their beliefs and their worries?

What does the user **HEAR**? This could reflect opinions and words that influence them.

What does the user **DO**? Are they following direction, getting confused, making mistakes?

3. Synthesise user needs

Identify needs directly from the user traits you noted. Needs are verbs (i.e. activities and desires).

4. Synthesise insights

Look to synthesise and group major insights, especially from the needs uncovered above. Look for repeated patterns and connections in the data you have collected.

Pro tip
Expectation maps are empathy maps that can be used to document the future state of your solution. Use them when you want to define how you *want* users to do, think and feel.

Now you're at the pointy end of the research. While particular details and data points of each interview, observation or learning are going to be hard to recall, overarching **insight statements**[42] and **design principles**[43] will provide memorable, concise guidance to move the project forward.

Insight statements and design principles will remain useful throughout the life of a project; they will ground the team with a common understanding and purpose, inform tough decisions, pave the way for definitions of success, and provide easily understood briefings and directions for others that might join the project later.

- -

Example: *Marcus has been exploring the experience of people dealing with mental health issues, as part of a broader initiative to design a product that can help them self-manage their mental health. After collating and sorting his research, he needs to ensure that the overarching messages and insights are listened to, and become central to the design of the product moving forward.*

SYNTHESIS
INSIGHTS AND DESIGN PRINCIPLES

1. Revisit the themes you uncovered while understanding your learnings

Place them up on a wall or board, and ensure the team are familiar with each of them.

2. Rephrase each theme as a short statement

This isn't intended to give solutions yet, more to create building blocks. These statements should feel like core truths of your problem space. For example, "our users hate queuing" or "people want regular updates on the impact of their donations".

3. Map these statements against your initial design challenge

Discard the statements that don't directly relate to your challenge. Elevate the ones that do. Stop when you have around three to five core statements.

4. Refine your insight statements

Revisit the phrasing of the chosen core statements to ensure they make sense. Test them with people not familiar to your project. Refine as needed.

5. Extract the core principles of your main themes

These should be framed as positive directives that read like affirmations. For example, "minimise wait times" or, "create efficiencies with technology".

6. Review these principles

Are they concise and pointed? Do they describe just one idea each? Break complicated principles into smaller parts.

7. Refine your principles over time

While your insight statements won't change, your design principles can. Some principles won't reveal themselves until you start ideating and prototyping, others will become irrelevant and need removing.

SYNTHESIS
VALIDATED USER PROFILE

When: you've completed research about your audience and need to validate any assumptions you were making about them

Who: research team

A crucial part of Strategyzer's *Value Proposition Design* canvas (card #08), a **validated user profile**44 describes a specific group of users (or "segment") in a more structured and detailed way. It breaks your understanding of the user down into jobs, pains and gains.

You may have already used the customer profile to document your assumptions about certain user segments before you undertook your research, but it becomes even more useful when you start to populate it with your actual observations, and begin looking for the assumptions that have been validated.

- -

Example: *Caleb is nearing the end of his research and observation of Red Cross regular donors, and has discovered a lot about what they're trying to get done when donating, the benefits they're trying to get, and the frustrations they are trying to avoid. He wants to capture these insights visually, and then find a way to rank them from most to least important, in order to design a solution that focuses on the most important things.*

SYNTHESIS
VALIDATED USER PROFILE

1. Create the canvas you'll be working on

Create a large circle separated into three wedges. If you need, download the template for free from Strategyzer's website.

2. Document the user jobs

Using post-it notes of a chosen colour, get the team to add their ideas one at a time. Jobs are simply things your user wants to get done in their life, relevant to the context of your project. Jobs can be:

· Functional (e.g. "do the dishes")
· Social (e.g. "look good around peers")
· Emotional (e.g. "feel satisfied at work")

3. Document the user pains

Using post-it notes of a different colour, get the team to nominate user pains. Pains are annoyances for users while trying to complete a job, blockers that stop them completing a job, or risks and bad outcomes of a job done badly.

4. Document the user gains

Again with post-it notes of a different colour, get the team

to nominate user gains. Gains represent the outcomes and benefits people want from a job done well. These can be:

· Required
· Expected
· Desired
· Unexpected

5. Rank your jobs, pains and gains

Not all jobs, pains and gains are created equal. It's important to understand what is of most importance to your users. Rank jobs on a scale of **important** to **insignificant**, pains on a scale of **extreme** to **moderate**, and gains on a scale of **essential** to **nice-to-have**.

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Download
Find the user profile template here:
http://rcau.click/user-profile-template

IDEATION
BRAINSTORM

When: you've learned what you need to learn about the problem and your users, and want to get creative in finding a solution

Who: project team, design team, research team

Brainstorming[45] is about going wide. You've done the hard work of understanding your problem space and your users. Now, the idea is to find *many* solutions, not *perfect* solutions, so get creative and lateral. It's time to think outside the box.

There are many different ways to brainstorm. The main thing to ensure is that you have the right tools available, and that everyone is on the same page about how the session will run.

Brainstorming rules[46]

- Defer judgment
- Build on the ideas of others
- Stay focused on the topic
- Quantity over quality
- One conversation at a time
- Be visual
- Encourage wild ideas

- -

Related to: Lightning talks / Storyboard / Co-design session / Sketch

BRAINSTORM

Download
Find more ideation tools here:
http://rcau.click/ideation-tools

Idea generation

Provide the team members with post-it notes and a pen. Make a space for the ideas to be shared. Review the overarching design challenge (card #09) – ideally, this should be a "how might we" statement. One-by-one, rapidly generate a single idea on each post-it note. Take turns sticking up the ideas and quickly explaining them before moving on to the next person. Generate as many ideas as possible.

Mash-ups[47]

Allow groups to select two topics or industries unrelated to the design challenge (e.g. "going camping" or "the fast food industry"). Get the groups to list up to ten crucial elements for each of their chosen topics (e.g. "pitching a tent" or "fast drive-thru service"). Once they have these two lists, ask them to look at combining an element from one of their choices with an element from the other to generate solution ideas for the current design challenge.

Mind mapping[48]

Whether you use the post-it notes previously generated in other brainstorms, or take a fresh approach on a blank slate, mind mapping helps you realise unseen connections between ideas. Start by writing the core problem/idea/concept in the centre of a large white-board or wall area. Take it in turns to write any ideas that come to mind around this central point. As you go, branch out from these ideas into other, related ideas. Allow team members to find connections between seemingly unrelated ideas. Once finished, review the map as a team and highlight the strongest points.

Get visual

Sketches, role plays and physical objects (such as play-doh) can be a more effective way of explaining and demonstrating an idea than a post-it note. Encourage your team to move beyond words and into more visual executions of their idea. Have the right tools on hand to allow for this.

IDEATION
STORYBOARD

While it might be tempting to compare yourself to a comic book artist, **storyboards**[49] don't require you to be an accomplished illustrator. The main aim of storyboarding is to tie all your thoughts together into a single, coherent story.

Anyone can develop a storyboard, and the true value comes from learning more about your idea through the process of visualising it. You'll get a better sense of the context your solution will be used in, who will be using it, and how it might be used.

- -

Example: *After co-designing with consumers, Melissa and her team have come up with a concept that matches people with lived experience of mental health concerns with those who are struggling with their mental health. However they don't understand what is important in terms of making a match. Would people like to match with someone who has a similar mental health condition, age and gender, or cultural background? To explore this, Melissa sketches out on storyboards how the matching process could work and shares it with people who would use the concept.*

IDEATION
STORYBOARD

1. Decide on what aspect of your idea needs prototyping

You don't always have to document the entire offering of a solution idea. Perhaps a certain part of the process still feels murky or unresolved. Or maybe the whole idea rests on one crucial interaction that needs to be understood.

2. Start sketching the storyboard

Use a template that resembles a series of comic book-style frames, but make sure there's room for captions/descriptions under each. Take no more than 30 minutes to sketch out the process and form the narrative.

3. Support the sketches with text explainers

Storyboards are supposed to be a testable output, so you'll need to ensure they can be understood easily without too much guidance from another person. Use text descriptions to support any sketches that may be ambiguous or low on detail.

4. Role play your storyboard to the group for internal feedback

Demonstrating the key moments in your storyboard to an audience can help you discover any additional ambiguities or confusion points. Refine your storyboard from group feedback.

5. Provide the storyboard to test users for feedback

Once you've ensured the storyboard conveys your idea accurately, get it in front of some test users. This will be an ideal way to uncover any assumptions you might have made about them and their unique context.

Pro tip
You don't need to be a skillful illustrator to make storyboards come to life. Use labels to help explain complex parts of your story.

ROLE PLAY

One of the easiest ways of prototyping and testing an idea is to act it out with a **role play**[50]. This activity is best done in groups, and can be made even more tangible with the use of props and audio/visual displays.

You can test your role play on your internal team and on test users to gather feedback. And you're likely to learn a lot just by stepping into the shoes of the different characters involved in your idea.

- -

Example: *Nurul is working with her team to try and improve the migrant emergency relief experience. After brainstorming and ideating as a team, one of the particular solutions requires a rethink of both the language and processes used in face-to-face interactions. In order to represent this new idea for feedback, Nurul and her team document it and then perform it as a role play, with team members playing different characters in the interaction.*

IDEATION
ROLE PLAY

- -

1. Decide which of your ideas you want to role play

Remember, a role play is a type of prototype, so you only need to make it tangible enough to gather the types of responses you need from your audience.

2. Assign roles to team members

Decide as a group who will be playing which role, and make sure you have people making or sourcing any necessary props, costumes, or equipment.

3. Flesh out the characters and the role play plan

Take about 30 minutes to work together to uncover the details of your role play. What are the characters like? How do they interact with each other? It can be good to reference any tools you've used to create personas (card #27) or user segmentation for this.

Pro tip
Try conducting a rapid prototyping session (card #37) prior to this activity in order to include any crucial props or built objects in your role play.

4. Add fidelity to the role play with props and costumes

While role plays can be a low effort way to prototype, they can be brought to life with the use of well-placed props or considered costume treatments. Do what you can to leave only the right amount up to the audience's imagination.

4. Undertake a group audience review

Following the role play, get the audience to review what they thought of the demonstration. What was accurate? Did anything trouble or confuse them? What wasn't clear? Was anything unrealistic? Do they want to use the real version of this product or service?

When: you feel like you've diverged as far as you can on iteration, and need to narrow in on the best ideas

Who: project team

As you move through the ideation process, you'll likely have many ideas floating around, and some may even begin to resemble others. This is a positive sign and suggests you are on the right track. You now need to begin taking the strongest parts of the best ideas and combine them into more complex concepts. From there, it's time to **prioritise the ideas** that you need to prototype, test and gather feedback on.

This is getting towards the pointy end of the ideation process. You now want to be moving towards robust solutions that are easily testable, in order to gather the most meaningful and accurate feedback.

- -

Example: *After a rapid design workshop with a range of stakeholders, Callum now has 25 ideas that could support people involved in the justice system to move into employment. He places them on a wall and begins sorting them based on similarities or complementary features, documenting underpinning assumptions, and identifying what needs testing.*

IDEATION
PRIORITISING IDEAS

- -

1. Begin sorting your ideas

Start on a wall. Move the different ideas around and see how certain ideas feel bundled together. Which ideas will naturally combine? Which combinations are surprisingly well-matched?

**2. Cluster the ideas
that work together**

Discuss the strengths of the clusters you are forming. Pull out the most promising elements, and then combine those with the best elements of other clusters.

**3. Build groupings from
your challenge themes**

You will likely have discovered themes and patterns earlier in your exploration, and these may have led to insight statements and design principles (card #29). See if you can build groupings around these themes, insights, or principles. This will ensure you maintain focus on what you've learned about the people you're designing for as you sort your best ideas.
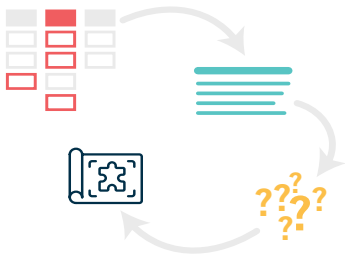
**4. Write down the key elements
of the best idea combinations**

These should be practical elements of your solutions. Uncover what most needs testing. Where are critical assumptions being made? Focus on early test questions that are arising.

**5. Document the most
important questions**

What will you need to answer in order to move this from prototype to solution? This will form the basis of your prototyping plan.

**6. Determine what you will need to
prototype to answer these questions**

The questions will help dictate the level of fidelity of your prototypes. Your prototypes don't have to be polished from the start.

IDEATION
CO-DESIGN SESSION

Co−design sessions[51] can be as big or small as you need them to be. They can be used to generate overall solution ideas, or to illicit feedback on smaller parts of your solution direction. You could need user inputs and feedback on one or two particular elements of your solution direction. Or, you might prefer to work with target users to generate the ideas for the overall solution.

Communities are also far more likely to adopt a product or service that they feel invested in, so involving your users in the design process not only helps you build a more desirable solution, it also empowers the group you are working with to take ownership over the process and its outcomes.

- -

Example: *Heidi has been tasked with a project looking to improve how young people manage their mental health. The mental health system is big and complex and the factors that effect mental are equally complicated. Rather than designing a solution* **for** *them, she knows she will get better outcomes by designing solutions* **with** *them.*

Related to: Brainstorm / Peer observation / Immersion / Contextual interviews / Prototype

IDEATION
CO-DESIGN SESSION

1. **Identify and source the community participants**

You may have already interviewed or observed participants out in the field that you can invite, or you might need to narrow down your search to a specific user segment or persona (card #27).

2. **Get the right people to join from your internal team**

Again, these might be team members who have already been involved in earlier research and observation. Ensure they're familiar with the project, and that they have the right temperament and experience for engaging with community participants.

3. **Source a space in a place that suits your participants and get the right supplies**

Remember, the community participants may be helping you work on a problem that affects their lives, so finding a welcoming space that suits them is important.

4. **Bring other tools into your session**

Use brainstorming (card #31), role-play (card #33) or sketching (card #36) activities to get the design process going. Your goal here is to get people into a creative mindset while building their confidence and rapport with your team. Start wide and broad, and then narrow down to tangible concepts and prototypes.

5. **All feedback is equal**

Remember that your participants are all co-designers, whether they come from a community background, a partner organisation or your team. Treat everyone as equal in the process. Capture all the feedback you can.

6. **Keep the participants well informed as you move forward**

While a co-design session provides a high-intensity way of engaging your community participants, don't forget to provide information on progress as a result of their efforts. Leaving participants uninformed can lead to them feeling disempowered.

IDEATION
SKETCH

Unlike most other activities, the core advantage of this activity is that team members get some time and space to work on fleshing out ideas on their own. **Sketching** is core to Google's *Design Sprint* process[52], and some of their techniques are documented here.

This doesn't mean collaboration is forgotten; there is also a time for the team to come together and expand on the favoured ideas later. Sketching works best in a quiet environment that lends itself to creativity. Make sure the team is relaxed and free of distraction, and that they have all the sketching tools they'll need at hand.

- -

Example: *Keaton and his team are trying to envision a new work environment for Red Cross staff moving into a new office. They've undertaken a large amount of user research, but they need to rapidly generate a body of ideas for discussion and choose the ones to move forward on. Keaton wants to avoid the usual "design by committee" approach and give each team member the chance to generate worthwhile ideas.*

Related to: Brainstorm / Storyboard / Prototype

IDEATION
SKETCH

1. Review similar problems and related product and service offerings

This could be a warm-up activity or some pre-activity homework. The best ideas may come from the repurposing or repositioning of ideas that already exist.

2. Warm-up by revisiting the body of research that exists

This activity works best after research and observation has been undertaken. Start the activity by allowing your team to quietly review the body of findings, taking their own notes and pondering possible solution directions.

3. Run a rapid "sketching basics" tutorial

Have a confident team member run some suggested sketching how-to's on a white-board or large sheet of paper with the team following along. The point here is to demonstrate that everyone can draw.

Warm-up activity
To combat "I can't draw" complaints, Get your participants to draw "squiggle birds": http://rcau.click/squiggle-birds
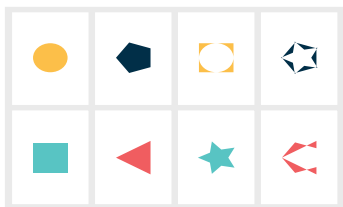
4. Sketch using "Crazy Eights"

Give everyone a sheet of paper (A3 works well), and have them fold it in half three times over. When opened up, there will be eight boxes on the page. Set a timer for eight minutes and have your team members rapidly sketch one idea per box. These must be distinct, unique ideas. Remind them that the sketches don't have to be perfect; it's about going wild with the ideas.

5. Get sketchers to present and hold a vote

Allow each sketcher to present their sketches on a wall over three minutes. Give each team member three votes – maybe with dot stickers. Once the presentations are finished, allow each person to distribute their three votes for their favourite ideas.

6. Narrow down and refine

Let each team member choose one idea (their own or someone else's) to refine over thirty minutes.

IDEATION
PROTOTYPE

When: you've narrowed down on a solution direction, and need to put something in your test user's hands for testing

Who: design team

There are no hard and fast rules for what a **prototype** should be. How much detail and effort you provide depends on what you're looking for. Are you after initial responses to broader ideas? Or are you looking to put something semi-finished in the hands of a user to test it before you move on to building?

Choose the level of detail and polish that best suits the insights you need from demonstrating and testing your prototype. That might mean using low-fidelity (low-fi) materials such as cardboard and wire, or high-fidelity (hi-fi) mediums such as digital mock-ups in design software. This card provides some general guidance for making rapid prototypes[53].

- -

Example: *Conor has developed a concept that links up community spaces, people and activities in order to promote mental wellbeing and community connection. He creates a number of materials (posters for promotion, a schedule of network activities, a list of involved places and spaces, and an experience journey) and shows them to community groups, business and people who would use the network.*

Related to: Storyboard / Role play / Sketch / Co-design session / Lean canvas / Integrate feedback and iterate

IDEATION
PROTOTYPE[54]

---

1. Storyboard the steps of your idea/solution/experience that you want to test

As a team, collaborate to create a storyboard that best represents your solution idea, and use it to decide on which parts of your solution you need to prototype. Use the **storyboard** (card #32) card to assist you.

2. Equip yourselves with the right space and the right supplies

Depending on what you'll be prototyping, this may mean choosing an open space for collaboration where a mess can be made, or access to digital tools to work on high-fidelity outputs.

3. Assign roles for building the prototype

Divide and conquer to make the most of your available time. You may need to write copy, create mock-ups, build physical elements, recruit testers, document the process or use specialised tools. Everyone in your team should understand their role.

4. Get building

Be sure to choose the prototyping tools you are most comfortable with. It's ok to take shortcuts where appropriate. Are their assets already in existence you can leverage? Try to use as many pre-prepared elements as possible. Remember, you are trying to approximate an experience. You're not building a whole building, you're building the facade first.

Types of prototypes to consider:

· Storyboards (card #32), role plays (card #33) and sketches (card #36)
· Brochures
· Screen mock-ups
· Fake landing pages
· Product box mock-ups
· Promo videos
· Physical spaces

VALIDATE

Pull out your magnifying glass and your lab coat.
It's time to think like a scientist and experiment.

VALIDATE

FEEDBACK
GROUP FEEDBACK

When: you have delivered the outputs of your ideation process, and need to include the right people on defining the way forward

Who: project team, users, research team, stakeholders

Now that you have come up with a range of possible solutions, it's time get focused with **group feedback**. Incorporating some well-defined processes[55] into your team feedback sessions will help you keep conversations on track, and democratically determine how to move forward. You'll need to spend some time planning the session before you launch into it.

It's about getting the mix right between the subjective and the objective; you'll need to find the right balance between relying on intuition and hard data. And you'll want to avoid "groupthink" or "follow the leader" mentalities. Voting on ideas silently and without discussion can be a great way to avoid this.

- -

Example: *Finn has been leading a small project team through a brainstorming and ideation phase in order to develop innovative solutions for how to deliver next year's Red Cross annual report. They have four to five solid ideas and have now reached a crucial decision point; which idea should they pick?*

FEEDBACK
GROUP FEEDBACK

1. Get the team to review the challenge, the goal and research summaries

Get everyone up to speed on how the project has reached the current stage. Answer any questions that your team members might have. You might also use this time for team members to present their solutions to the group.

2. Choose a voting method

Make sure the solutions are showcased somewhere in the room. Assign the team members with a set number of stickers for casting their votes. For example, it can sometimes be effective to assign small stickers for voting on features of ideas, then larger stickers for a separate round of voting on overall concepts. This will help you include useful features into your overall solution direction. Or you may like to cast votes in terms of most viable / most feasible ideas.
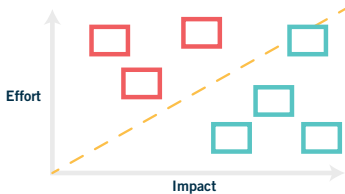
3. Refine the decision making with a decision graph

If there's no clear consensus after voting, you can use a decision matrix. Label the X axis with the overarching quality you're pursuing (e.g. "low impact" to "high impact"). Label the Y axis "low effort" to "high effort". As a group, discuss the competing ideas and place them at the relevant point on the graph. Typically, you want to prioritise the ideas that achieve highest place on the Y axis, with as little effort as possible. Use this to eliminate any ideas that won't deliver high value, or will take too much effort.

FEEDBACK
THINKING HATS

While working on projects, we tend to adopt different mindsets and modes of thinking at different times. Sometimes we are optimistic and creative in coming up with new ideas, other times we might look for weaknesses and risks. Thanks to *Edward de Bono*, we have **thinking hats**[56] to ensure we create space for these different modes, and gather feedback in a structured and balanced way.

Across this process, the group will move through four modes of thinking, represented by four different coloured hats. Actually putting the hat on your head is optional, of course. It's a very useful activity for getting people to think in new ways, and share that way of thinking with others.

- -

Example: *Julia and Antonia have been working on a solution for a new campaign to attract new volunteers, but now need to ensure they collect meaningful, structured feedback from core stakeholders on the current direction they are pursuing.*

FEEDBACK
THINKING HATS

1. Equip the team with the right tools

Make sure there is a means of capturing the feedback. Colour-coded post-it notes that match the hat colours is a good idea.

2. Idea "owners" present to the group

Have the teams or individuals who came up with the idea present it to the group.

3. Blue hat: management

This isn't a hat for the whole group, and it should be worn by one person throughout the whole session. This person's role is to facilitate the process, keep conversations on track, and ensure the rules are being followed.

4. White hat: information

The group then focuses on uncovering neutral and objective data and information. What do they need to know more about? What needs clarifying?

5. Red hat: intuition and feelings

The group then moves on to sharing thoughts and feelings without needing justification and without judgement.

6. Black hat: caution

This phase of the discussion relates to pessimism; the group should focus on weaknesses and risks with this idea. Where might things go wrong?

7. Yellow hat: benefits and value

This phase of the discussion relates to optimism; the group should focus on strengths and opportunities with this idea. What benefits does it deliver?

8. Green hat: creativity

Take time to generate new ideas, alternatives and possibilities; maybe even entirely new concepts.

9. Evolve the idea from feedback

Provide your feedback to the original idea creators to provide the basis for iteration.

BUY A FEATURE

When: you need to gather direct and concise feedback using hypothetical budgets to extract what is of highest importance and value for users

Who: users

The **buy a feature**[57] activity involves distributing a hypothetical budget to test users, and allowing them to allocate it as a group to prioritise the purchase of features that they would most like to be included in your solution. It's important to ensure your users don't get enough budget to purchase all features, and encourage them to work together as a team to get the features they all want.

The best part? It will also help you validate any assumptions you've made about the value of given features based on the price you've allocated to each. If you've priced a feature too highly, no one will buy it, and if you price it too low, you'll likely see buyers snap it up too easily or add it as an after-thought.

- -

Example: *Gino has listed five features for a new app designed to match volunteers with clients looking for assistance, but he needs to know which of these are most important to both volunteers and clients for the first version.*

Related to: Abstraction laddering / Speed boat / Validated user profile / Feature value map

FEEDBACK
BUY A FEATURE [58]

1. Select the features to test and assign their price

You don't have to test every feature. You might select the features with the most assumptions being made about value, or competing features that have to be selected from. The prices should be sensitive to the hypothetical budget you'll be giving users. Make sure the lowest priced feature can be bought outright without cooperation, and that the highest price feature requires the pooling of user budgets.

2. Define the budget for users

The important thing for people to understand is that they will be purchasing the features as a group, but that their individual allocation is theirs to use as they see fit.

3. Time to buy

It may help to have visual or physical representations of currency in order to help people allocate their funds. Take record of how much money is allocated to each feature.

	☺	☺	☺	
💡	$$	0	$	✖
💡	$	$$	$	✖
💡	$$	$$$	$$$	✔

4. Analyse the results

Reflect on which features were purchased, how quickly they were purchased, and where the hard decisions arose. Overall, which features didn't make the cut? Compare the results to the assumed value you applied to each feature. What has surprised you?

> **Pro tip**
> This activity can also be useful for resolving internal disagreement about project requirements. If you're having trouble narrowing scope to meet budgets or deadlines, try running this activity with your team internally.

TESTS
EXTRACT YOUR HYPOTHESES

When: you need to understand exactly what you need to test to avoid making assumptions that could be critical to your project

Who: research team, users

It's important to understand the difference between an assumption and a hypothesis. Assumptions inherently involve risk, and are likely too vague to test directly. We can choose to either accept these risks, or turn them into testable hypotheses that can be proven or disproven with experiments. You need to take a principled approach to **extracting your hypotheses**[59] before moving into test mode.

Don't leave assumptions untested. Turn them into hypotheses. An untested assumption that becomes invalidated could kill your idea.

- -

Example: *Miriam and her team are developing a new, community-led recovery initiative in emergency services. They are underpinning this with a few critical hypotheses about how people behave in different sized communities after an emergency, what roles they take, and where they go to for information. They need to find a way to properly document their assumptions, and how they will go about testing them.*

Related to: Frame your design challenge / Understand your learnings / Insights and design principles / Validated user profile / Test framework / Results framework

TESTS
EXTRACT YOUR HYPOTHESES

1. Assumptions in your project plan

Ask yourself, what needs to be true that you are yet to test, for your overall project plan to work? If you've created a business model canvas or a **lean canvas** (card #46), assess how many assumptions you've made on that canvas.

2. Assumptions in your user profiles

What needs to be true that you've assumed about the tasks, jobs, needs, desired benefits, undesired pains of your users? If you've created **user profiles** (card #30) as part of the *value proposition canvas* (card #08), assess how many assumptions you've made and are yet to validate on that profile.

3. Assumptions in your value proposition

What needs to be true about the key features, products, services, pain relievers or gain creators involved in your solution? Creating a **feature value map** (card #44) as part of the *value proposition canvas* (card #08) could be a good way of understanding these assumptions.
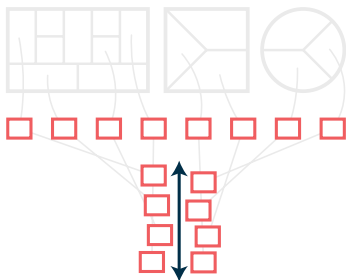
4. Prioritise your critical assumptions

From the assumptions you've discovered, rank them in terms of how critical they are to the survival of your core idea. What, if proven false, would kill your idea?

5. Convert the most critical assumptions into testable hypotheses

A good hypotheses should include your statement of what is believed, your planned test to verify that belief, the measurements you will take, and what verification will look like as a result.

TESTS
TEST FRAMEWORK

When: you need a structured way of running experiments to test your hypotheses

Who: users, test team

Determining what you need to learn is important; determining how you need to learn it can be equally as important. Conducting tests with a structured approach using a **test framework** (like a "test card"[60]) will ensure you use your time well, and set you up to come away with the best validated learnings.

It's not enough to simply know that you have an assumption to test; you need to get to the core belief underlying that assumption, the steps you will take to verify whether that assumption is true or not, how you will measure it, and what the criteria is for proving whether or not it is true.

Example: *Anna and her colleagues have been developing a new approach to our Christmas campaign in order to attract younger donors. This campaign involves tailored imagery and language, and specific social media executions. Before moving forward on execution, Anna needs to make sure these resonate with younger donors in testing.*

TESTS
TEST FRAMEWORK

- -

1. State your hypothesis

Describe the hypothesis you
want to test. These are usually
phrased as "We believe that…".
Indicate how critical this
hypothesis is to your core idea.

2. Outline the experiment you have designed

Describe the activities you will
undertake to test this hypothesis.
Indicate how costly this test is
likely to be, and how reliable you
expect the measured data to be.

3. Define the data to be measured

Describe the actions or outputs you
will be measuring, and how you will
measure them. Indicate how long
you expect the testing to take.

4. Determine your criteria for validation

Define a target threshold that will
indicate whether the hypothesis
is validated or invalidated. What
does being right look like?

Test Card   ⏱**Strategyzer**

| Test Name | Deadline |
| Assigned to | Duration |

STEP 1: HYPOTHESIS
We believe that

Critical: ▲ ▲ ▲

STEP 2: TEST
To verify that, we will

Test Cost   Data Reliability

STEP 3: METRIC
And measure

Time Required

STEP 4: CRITERIA
We are right if

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5. Prioritise tests for the most critical hypotheses first

Consider using multiple
experiments for each hypothesis
if needed. Start with the faster
and easier tests, then move
to the more involved and
elaborate tests if necessary.

6. Run the tests

Use this framework to document
the tests, and ensure you document
any additional tests that need
to be defined as a result.

ANALYSIS
RESULTS FRAMEWORK

When: you are conducting tests on hypotheses and need a structured way to document the results

Who: test team

There's no point conducting well-structured tests if you don't have a well-structured way to capture the results. Understanding what was actually observed throughout the test, the learnings that came from these observations, and the actions that need to occur as a result are crucial to your testing process. Use a **results framework** (like a "learning card"[61]) to capture the outcomes of your tests.

Your experiments may invalidate your assumptions and you will need to pivot your direction, or they may indicate you don't have enough information and need to go back and run more tests. If you're lucky, your results will confirm your current direction.

- -

Example: *Anthony and his team have been trialling a new work desk configuration in an area of a Red Cross office in order to raise productivity and employee wellbeing at work. They have been conducting specific tests over a trial period. They now need a way to document the results of their tests.*

ANALYSIS
RESULTS FRAMEWORK

1. Restate the hypothesis you tested

Describe the hypothesis you conducted the test on. This would usually be phrased as "We believed that…".

2. Document the observations made from the experiment

Outline the outcomes in terms of data and results. What are the major bullet points from your observations? Indicate how reliable you consider this data to be.

3. Define the learnings and insights

Explain what conclusions you can make from the observations, and develop insights to help direct where you might go next. Indicate how much effort you expect the next course of action will require.

4. Describe the next course of action

What actions will you take from your insights? Has the hypothesis been validated? Or is there more learning required? What will you do if the hypothesis has been invalidated?

Learning Card ⏱ **Strategyzer**

Insight Name | Date of Learning
Person Responsible

STEP 1: HYPOTHESIS
We believed that

STEP 2: OBSERVATION
We observed
Data Reliability 👍 👍 👍

STEP 3: LEARNINGS AND INSIGHTS
From that we learned that
Action Required ☑ ☑ ☑

STEP 4: DECISIONS AND ACTIONS
Ther

Copyright

Download
Find the learning card template here: http://rcau.click/learning–card

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Now what?
Invalidated hypothesis

Time to pivot. Are you targeting the right users? Are you pitching the right features?

Need to learn more

You may have found that you haven't learned enough to fully validate your hypothesis. Time for more testing.

Validated hypothesis

If you've validated something you believed, move on to your next test, or move beyond testing into execution.

ANALYSIS
FEATURE VALUE MAP

When: you've understood the jobs, pains and gains of your users, and need to document the ways you address these

Who: project team

Whether you've ideated a brand new solution to a problem, are incrementally improving a current product or service, or just need to assess how a given solution is performing, it can be a good idea to map the value against user jobs, pains and gains. That's where the **feature value map** comes in.

A crucial part of Strategyzer's *Value Proposition Design* (card #08) canvas, the value map[62] describes the features of your value proposition in a more structured and detailed way. It breaks your understanding of your features down into products and services, pain relievers and gain creators. This activity works best alongside **validated user profiles** (card #30).

- -

Example: *Renata is leading a small project group tasked with redesigning the front page of their team's presence on our intranet. They've done the work of understanding their users and their needs, and they've shortlisted a set of features for the page. They want to ensure these features properly meet with user needs.*

ANALYSIS
FEATURE VALUE MAP

1. Create the canvas you'll be working on

Create a large square separated into three wedges. If you need, download the template for free from Strategyzer's website.

2. Document the products and services being offered

Using post-it notes of a chosen colour, get the team to add their submissions one at a time. Think of this as what customers would see in your "shop window". Products and services can be:

- Physical/tangible (e.g. products in the hand)
- Intangible (e.g. support services)
- Digital (e.g. websites and apps)
- Financial (e.g. services that might provide financial gain)

3. Document the pain relievers

Using post-it notes of a different colour, get the team to nominate pain relievers. Pain relievers demonstrate how you intend to reduce annoyances and reduce blockages. Keep them relevant to the documented user pains.

Download
Find the feature value map template here:
http://rcau.click/feature-value-map
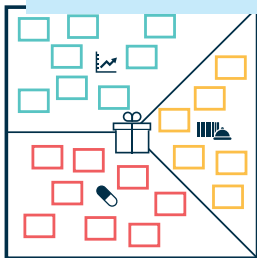
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4. Document the gain creators

Again with post-it notes of a different colour, get the team to nominate gain creators. These are the benefits that your user might expect, desire, or be surprised by. Keep them relevant to the documented user gains.

5. If needed, rank your products and services, pain relievers and gain creators

If your idea seems too full of features, it's important to understand what is of most importance to your users. Rank all the post-its on a scale of **essential** to **nice-to-have**.

ANALYSIS
VALIDATED VALUE PROPOSITION

When: you need to understand how your products and services create the right gains and relieve the right pains for your users

Who: design team

Once you've done the hard work of documenting your user needs on a **validated user profile** (card #30), and your product or service features on a **feature value map** (card #44), it's time to assess if you've achieved fit between the two. *Fit* occurs when users get excited about the value proposition you're putting forward, which means you're addressing the most important jobs, extreme pains and essential gains[63].

Fit generally occurs in three stages. The first occurs when you identify the relevant jobs, pains and gains you believe you will address. The second occurs when users reactive positively to the value proposition, and it gets traction in the market. The third occurs when the solution becomes either profitable or scalable. This activity will help you assess either of the first two stages.

- -

Example: *Greg is designing a new instructional booklet, and has needs to know how the contents will fit with the needs and expectations of his users.*

ANALYSIS
VALIDATED VALUE PROPOSITION

- -

1. Review your user profiles as a group

Review each user profile as a group, discussing the most important jobs, extreme pains and essential gains for each.

2. Review your value map as a group

Review the feature value map as a group, discussing any important decisions or refinements you've made along the way.

3. Match jobs with products and services

Using stickers or coloured markers, mark each job on a user profile and its matching product/service on the value map. Separately mark any jobs that aren't matched with a product/service.

4. Match pains with pain relievers

Using stickers or coloured markers, mark each pain on a user profile and its matching pain reliever on the value map. Separately mark any pains that aren't matched with a pain reliever.

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Download
Find the value proposition design canvas here:
http://rcau.click/vpd-canvas

5. Match gains with gain creators

Using stickers or coloured markers, mark each gain on a user profile and its matching gain creator on the value map. Separately mark any gains that aren't matched with a gain creator.

6. Assess any unmatched post-it notes on the value map

Any post-it notes that remain unmatched on the value map could indicate features that aren't necessary for your users.

7. Determine that you've met the greatest needs

Any crucial jobs, pains, or gains that have not been addressed and matched may indicate that you need to reassess your value proposition.

ANALYSIS
LEAN CANVAS

When: you're preparing your idea to move from validation to delivery, and need to document your understanding of all the interlinked aspects

Who: project team

A **lean canvas** is essentially a business model for your product or service captured on a single page. The canvas itself was adapted by Ash Maruya[64] from Alex Osterwalder's *Business Model Canvas*[65] and has been optimised for embracing a **lean start-up** (card #07) mentality. You'll use it to document your customer segments, problem definitions, revenue streams, solution definition, value proposition, engagement channels, key success metrics and your cost structure.

Consider the lean canvas your blueprint for success. Without it, you'll be moving into the delivery phase before you've fully defined all the critical components of your solution.

- -

Example: *Christine has been tasked with leading a team to surge on a strategic outcome over the next six months. She needs to understand and document all of the interconnected aspects of the team, the outcome, and the key factors involved in making the project work.*

ANALYSIS
LEAN CANVAS

Create the canvas

There are countless lean canvas templates available online. Use a large surface to either draw-up or print the canvas, and use post-it notes to populate it.

1. User segments

List your target users as you have come to understand them. Define who your early adopters might be and what they look like.

2. Problem definitions

List up to three of your users' main problems. Define any current solutions your early adopters are accessing for these problems.

3. Revenue/impact streams

In the social sector, this section is mainly used to define how your idea will drive impact, but could also be used to document any revenue streams.

4. Possible solutions

List the ideas you have for solving each of the documented problems.

5. Unique value proposition

Define your single, compelling message that will create demand for your product/service. Define your early, high-level concept.

6. Engagement channels

List the channels you have available for reaching your target users.

7. Key success metrics

List the key metrics you need to be measuring to determine the success of the idea.

8. Cost structure

What are the predicted costs for implementing this idea? Are they fixed or variable?

9. Unfair advantage

What strengths and resources makes us best placed to deliver this solution in the sector?

ANALYSIS
DESIRABILITY, FEASIBILITY, VIABILITY

When: you need to assess that you have the resources, funds, and proof of need for the solution directions proposed for your product or service

Who: project team

Sometimes visualised as three overlapping circles in a Venn diagram, determining the **desirability, viability and feasibility** of your ideas is crucial to the future success of your product or service. It is said that at the intersection of all three circles is where true innovation resides[66]. So, it's time to see if your idea hits that target.

When assessing desirability, you are looking at whether your solution is wanted by your target audience. When assessing feasibility, you are looking at whether your solution is possible to make with the available resources, skills, budget and technology. When assessing viability, you are assessing whether your solution *should* be built in terms of perceived impact, risk and strategic alignment. The desirability, feasibility and viability of your project is best assessed alongside a completed **lean canvas** (card #46) or business model canvas[67], if you've used one.

- -

Example: *Stephen needs to ensure that his project makes strategic sense, is able to be afforded, can be built with current skill-sets, and is actually desired by users.*

ANALYSIS
DESIRABILITY, FEASIBILITY, VIABILITY

1. Set thresholds from your project scope and trade-offs

What is an acceptable score out of five for desirable, feasible and viable? What does a score of one out of five mean for any of these? Can you accept something that is somewhat costly and hard to build if it is desired highly? Or do you need to find something easily built without much cost without paying as much attention to how desirable it is? From this, what total score allows an idea to "pass"?

2. Assess and score desirability

Do people want this? Consider what you know about your user segments, the channels you will use to reach them, your unique value proposition, and your unfair advantage. Score any distinct ideas out of five on these factors.

3. Assess and score feasibility

Can you make this? Consider what you know about your problem definitions, your documented solution directions, and the metrics you have established for success. Score any distinct ideas out of five on these factors.

4. Assess and score viability

Should you make this? Consider what you know about what it will cost, and what impact it is likely to have (either in terms of profit or social good). Score any distinct ideas out of five on these factors.

5. Examine the results

Which ideas have totalled a "passing" score? Have any scored perfectly? If there isn't a clear winner, decide which of the qualities is more crucial; can you compromise on one to be strong in the others?
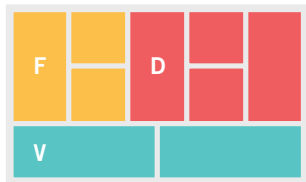
Pro tip
If you complete the **lean canvas** activity (card #46) before this activity, you'll have all the answers you need to properly assess the factors on this card.

ANALYSIS
FIND YOUR INNOVATION NICHE

When: you are proposing new solutions, and need to understand how much difficulty you will face in implementing them

Who: project team, stakeholders, approvers

How radical is each of your new solution ideas? Which of them build upon something already being offered? Which are targeted mainly at acquiring new users, or satisfying existing ones? What about the solutions you already offer? Just how difficult a task are you setting yourself? All of these questions can be answered with a simple, visual activity that helps you map the likely growth of your idea.

Using a simple 2x2 framework[68], this activity will allow you to understand just where your ideas fall in terms of how new or novel they are, and which of your user groups you're targeting them at. This activity can also be used to compare existing solution offerings.

- -

Example: *Jung–Hee has been asked to assess how innovative her team's current efforts are to change the way members engage with the organisation, and find gaps in what is currently being offered.*

ANALYSIS
FIND YOUR INNOVATION NICHE[69]

1. Create the matrix

Draw a 2x2 matrix on a large sheet of paper or white-board. The vertical axis will represent the "newness" of your solution – from incremental adaptations on existing solutions, to completely new offerings. The horizontal axis will represent the "newness" of your users – from existing and engaged, to first-time users.

Breakthrough Innovation

Game Changing Innovation

Disruptive Innovation

Incremental Innovation

Diagram adapted from Kalbach, J. (2012) 'Clarifying Innovation: Four Zones of Innovation' Experiencing Information

2. Plot your solutions

On post-it notes, write each of the proposed and currently offered solutions, and place them. Revolutionary new ideas that rely on attracting new users will land at the very top-right. Incremental, small improvements to an existing idea targeted at current users will fall at the bottom-left. Radical ideas that service pre-existing users will land at top-left, and innovative uses of existing solutions for new users will land at bottom-right.

3. Assess the completed matrix

Review and discuss how the populated matrix looks. Where are the gaps? Are those gaps vertically-distributed (meaning there's likely a tension between small, incremental improvements and high-risk, radical ideas)? Or are the gaps horizontally distributed (meaning you're either just thinking about current users or early adopters, without the people in the middle)?

4. Decide on next steps

Ideally, you'll find that some of your ideas are well-placed to allow you to confidently pursue at least one as a new solution direction. If not, you may need to revisit some exploration around ideas that begin to intentionally fill the gaps you have discovered.

ITERATE

INTEGRATE FEEDBACK AND ITERATE

When: you've collected feedback on your solution direction, and need to incorporate this in the next version or iteration

Who: design team

This is an activity you should be conducting regularly; whether you're on your first prototype or your twentieth update to your product or service. What use is gathering feedback if you don't use it to improve the thing you're designing?

Knowing how to revisit what you've learned and how it applies to the current version of your idea is equally as important as knowing how to plan what to do next. This activity resembles a design review process used by agencies, with the end result being a plan of activities for how you'll improve the current version of your product or service.

- -

Example: *Ainslie is currently working on the third version of a Red Cross app helping people get prepared for emergencies. After reaching out to current users with surveys and conversations, she needs a way to define where the product should go next.*

ITERATE

INTEGRATE FEEDBACK AND ITERATE

- -

1. Revisit the goals of the project

Ensure the team has a common understanding of the overarching aims and goals of the product or service you are designing.

2. Provide an overview of the current iteration

Ensure that visual executions of the current iteration are visible. Take this time to demonstrate and explain any context for the prototype being reviewed.

3. Decide the scope of the next iteration

Are there budgetary, time-based or other constraints on what you can do next? Ensure the team is aware of these.

3. The 4 Ls

Using the collated user feedback as a guide, document:

- What was liked
- What was lacking
- What was learned
- What was longed-for

This may be captured on a feature-by-feature basis.

Liked   Lacking

Learned   Longed for
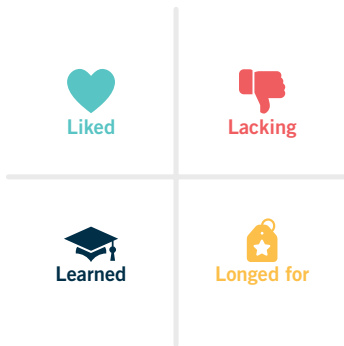
5. Ideas for improvements

Have the team take some time to document individual ideas to take further on separate post-it notes, addressing the feedback captured in the 4Ls. Take turns sticking ideas on the current visuals and explaining them.

6. Vote on next steps

Using stickers, allow team members to vote for their favourite improvements to take into the next iteration. Select the most popular ideas and begin planning how to integrate them.

DELIVER

Time for take-off; you'll need your
seats upright, tray tables stowed,
and a solid business plan.

DELIVER

PLAN
ROADMAPS

When: your solution has been proven to work and you need to align the team to deliver with clear roles, priorities and timeframes

Who: project team, key stakeholders

You've done the hard work of research, interviews, observation, ideation, feedback gathering, iterations and testing. Now you need a high-level plan to get your solution out into the world.

Use roadmaps to include key stakeholders in collectively agreeing on a timeline, the key milestones, and the responsibilities of those in the team.

- -

Example: *Petra has arrived at a the end of a comprehensive and consultative approach to a new set of water and sanitation policies and procedures for international delegates in the Pacific. She needs to ensure that the coming days, weeks and months are laid out and understood in order to ensure these policies and procedures are delivered and fully adopted.*

ROADMAPS

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1. **Get the right people in the room**

Gather your project team members, key stakeholders and partners together for the roadmapping session.

2. **Use a blank roadmap template spanning the months needed**

This template should consist of blank horizontal rows for each overall area of focus (development, marketing, funding etc.), with vertical columns representing days, weeks or months ahead.

3. **Take a short, medium, and long term view for dates**

Label the short term period of days/ weeks/months as *NOW*. Label the medium term period of time as *NEXT*. Label the longer term period as *LATER*. The sooner something needs to happen, the more attention to detail you'll need in planning it.

4. **Mark crucial dates on the months ahead**

Keep it loose at first by using post–it notes to mark key milestones and dates to begin with (pilot, public launch, campaign launch etc.).
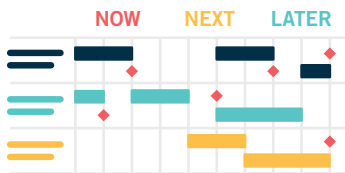
5. **Work backwards from the crucial dates to determine phase length**

When will the work begin leading up to this crucial date? What dependencies are there with other pieces of work?

6. **Use a legend or colour scheme to distinguish key points or bodies of work**

Depending on your project, key dates might have different types of activities on them (reviews, releases, meetings etc). Use a legend to make this easier to see at a glance.

7. **Seek agreement and finalise the roadmap**

You may wish to circulate a digital revision of the final roadmap, or leave the physical roadmap on a wall for the team to view.

PLAN
MOSCOW METHOD

When: you need to ensure the project will deliver the most value as early as possible

Who: project team, stakeholders

The **MoSCoW method** is a prioritisation technique used in business analysis, project management, and software development[70] to reach an agreement with stakeholders on project priorities.

MoSCoWing enables you to deliver your project on time whilst protecting the quality of the solution. By understanding your requirements in terms of *must* haves, *should* haves, *could* haves and *won't* haves can really help you get to the bottom of what is most important. By agreeing degrees of importance, you can flex requirements to deliver on time.

- -

Example: *Hasan has received a large amount of feature requests and recommendations for a new online portal that simplifies the job application process at Red Cross. Currently, there are too many features suggested to fit with the budget and timeframes of the project. He needs a way to work with stakeholders to understand how important each of these competing features is to the overall project success, and which can be left to a later round of development.*

Related to: Roadmaps / Trade-off sliders / In or out of scope? / Minimum viable product

MOSCOW METHOD

1. Document all known project requirements

Try and place each requirement on a post-it note. Try to be as concrete as possible, by breaking broad requirements down into more specific components.

2. Create an "in-scope" table

You can do this on paper, a wall or a white-board. This table should have three rows: 1) "Must have" at the top, 2) "Should have" in the middle, 3) "Could have" at the bottom.

3. Create an "out of scope" area

This can be on an additional piece of paper or a separate area of a wall or white-board. Label this area "Won't have".

Pro tip
Effort in delivering these requirements should roughly be divided into 60% effort for "must haves", 20% effort for "should haves", and 20% effort for "could haves".

4. Sort the criteria as a group using the MoSCoW criteria

Must have – it must be delivered; the solution won't work without it.

Should have – it really should be delivered; although there may be an acceptable workaround.

Could have – it would be great to have these but they are less important; consider them "nice to have".

Won't have – these requirements won't be delivered in the current body of work.

THEMES, PROJECTS, EPICS AND TASKS

When: your roadmap is set and you need to begin understanding and breaking down the scope of the work ahead

Who: project team, partnering agencies, stakeholders

Taking the time to properly structure the work you have ahead will save much in lost time and effort later. Using the language of **themes, projects** (sometimes called "initiatives")**, epics and tasks** (sometimes called "stories")[71] will help you strike a balance between structure and flexibility.

Using these definitions, you'll be all set-up for creating your first *backlog* of work to take on in an **Agile** process (card #03). The main aim is to allow your team to make the scope of work easily understood and tangible by breaking it down into meaningful parts. This will empower them to respond to change, report on progress, and stick to their plan. As in all things, it's important to continue to anchor your team in the user's context as you go.

- -

Example: *Maya is responsible for two major projects aimed at improving the experience of migrants in transition when visiting our hubs, and when applying for emergency relief. She will be running these as agile projects, and needs to break the work down into the right sized chunks for her team.*

Related to: Roadmaps / Agile project management / Capabilities assessment

PLAN
THEMES, PROJECTS, EPICS AND TASKS

1. Themes

Themes are large focus areas that span the organisation or broader team's strategic goals. **Themes** should inspire things like **projects** and **epics**, but don't have to have a direct relationship with them.
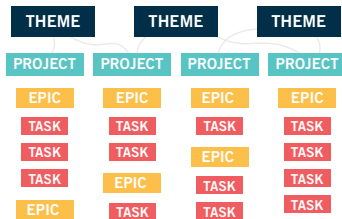
2. Projects

Projects are collections of **epics**, leading to a broader, bigger goal than any individual **epic**. **Projects** are longer term, and would likely be underpinned by the solution you have created in answer to your design challenge.

3. Epics

Epics are large bodies of work that can be broken down into smaller tasks (**stories**). Think of it in terms of books and movies; **epics** are formed by a series of related and interdependent **stories**.

4. Tasks

Sometimes called *user stories*, **tasks** are short work requirements or requests. Often, these can be written from the perspective of an end user.

THEME	THEME	THEME	
PROJECT	PROJECT	PROJECT	PROJECT
EPIC	EPIC	EPIC	EPIC
TASK	TASK	TASK	TASK
TASK	TASK	EPIC	TASK
TASK	EPIC	TASK	TASK
EPIC	TASK	TASK	TASK

5. Formatting and structuring stories

When creating **tasks**, consider what *done* looks like, what tasks or subtasks need to be completed, and who the persona is behind the story. **Tasks** should be small enough to complete in a single sprint. You can size **tasks** with labels (called "t-shirt" sizing) like small, medium, large, extra-large etc.

User stories are often structured in the following way: "As a [role/job title], I [want/need] ____, so I can [end goal]."

Pro tip
If your project involves building something for our clients or beneficiaries, deliberately referencing the end user with *user stories* ensures you prioritise the users needs above all else.

PLAN
KANBAN BOARD

When: you want to focus on finishing tasks and prioritise quality
Who: project team

A **kanban board** is an *agile* project management tool designed to help visualize work, limit work-in-progress, and maximize efficiency (or flow). Kanban boards use cards, columns, and continuous improvement to help teams commit to the right amount of work, and get it done. A Kanban board allows you to take complex problems, prioritise them into tasks, then allocate those tasks to the team member best suited to solve each one.[72]

There is no one set kanban board or card system, your team needs to create customised boards and cards based on your work and workflow.

- -

Related to: In or out of scope? / MoSCoW prioritisation / Roadmaps / Agile project management

PLAN
KANBAN BOARD

View
Find our Trello template
here: http://rcau.click/trello

Below is a guide to how a *scrum* team might set up their kanban board, remembering there is no right or wrong way to set up your teams board. Using a virtual tool like Trello is a great place to experiment with your team.

1. Scope your project

Start by determining tasks that are *in or out of scope* (card #12), then apply the *MoSCoW method* (card #51), before moving tasks onto a *roadmap* (card #50). These tasks will become your backlog.

2. Set-up your board

A sprint board contains the following columns:

* **Backlog:** tasks not started and needing a conversation to move to "Preparing"
* **Preparing:** tasks where a "definition of done" is defined
* **Doing:** tasks being undertaken in the current sprint
* **Blocked:** tasks that have been started but are blocked
* **Done:** tasks that have been completed
* **Team availability**

4. Agree on your rituals as a team

Typically, a sprint will start with a sprint planning, require daily stand-ups, and finish with a sprint review. You may also need to consider a retro and/or a showcase.

5. Create your backlog

The Backlog is where you list out the tasks (on "cards") that you need to complete on the project, ordered by importance. As the project takes shape and new needs emerge, you will add to this. The Product Owner takes primary responsibility for this.

6. A good card contains...

Each task (represented as a "card") should contain:

* A descriptive title
* An owner
* Labels
* A background description
* A definition of done
* A sizing estimate (is the task small, medium, large etc.?)
* A checklist of sub-tasks if needed
* Links or attachments if needed
* Commentary as work progresses
* A due date

PLAN
SERVICE BLUEPRINTS

When: you have refined your service delivery solution, and need to document the details of the service, both internal and external

Who: design team, project team

Whether you're designing a new service, or improving an existing one, **blueprinting**[73] how this service will work allows you to see the service design in enough detail to analyse, implement and maintain it.

Service blueprints show the interactions and dependencies between people, touch-points, processes and technology both "frontstage" (the part users see), and "backstage" (what happens behind the scenes). They help you identify the moments that matter, which helps you recognise opportunities and prioritise effort. The backstage work is just as important to blueprint as any elements of your service that will be user-facing.

- -

Example: *Armin has lead a team through a rigorous process of defining a new means of delivering patient transport services at Red Cross. He now needs to set-up the delivery of this new service model with a detailed documentation of how this new model will function, and where the crucial moments are.*

PLAN
SERVICE BLUEPRINTS

Download
Find a guide to Service Blueprinting from *Adaptive Path* here:
http://rcau.click/service-blueprints
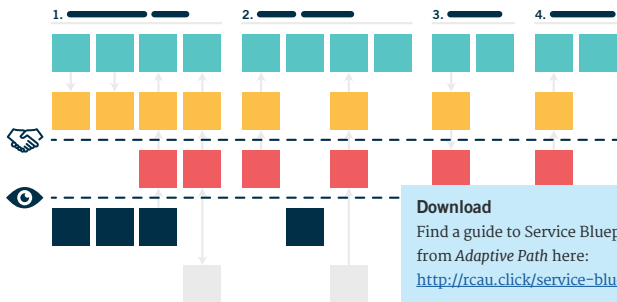
1. Determine your time scale and phases

Does your service happen over minutes, or weeks? What phases does a user go through in interacting with your service? These may relate to any journey maps you have already created.

2. Create the "swim-lanes"

Starting at the top, your rows should be:

- **User actions** – physical or mental actions performed by users during the service
- **Touch-points** – the medium of exchange between the user and the service
- **"Line of interaction"** – this line represents what aspects of your service users can directly interact with
- **Staff actions** – can be both frontstage and backstage, and represent actions taken by staff
- **"Line of visibility"** – this line represents the division between frontstage and backstage elements
- **Support processes** – tools and systems necessary to support staff in running the service

3. Collaborate on plotting the service moments

Moving across the service phases, determine the user actions, touch-points, staff actions and support processes at each moment. Key collaborators could be designers, ops managers and tech leads.

So, you've got a great solution, and you've validated that people want it and that the organisation can afford to create it, but have you got the skills available to execute on it74? Where exactly do we have the capabilities, and where will we need to outsource? Doing this early is crucial to ensuring you have the right budget and deadlines to make it all happen.

This activity will help you understand who to give a seat at the table, and allow you to include them in the right conversations early. It may even give you an opportunity to revisit any aspects of your **roadmap** (card #50) that need updating.

- -

Example: *Harriet is working with her counterpart in our emergency services team to define a new way of reaching out to the Australian public each year about emergency preparedness. This campaign will involve many touch-points and skill-sets, and she needs to understand how much we can deliver internally, or where we might need external expertise.*

RESOURCE
CAPABILITIES ASSESSMENT

1. Revisit current delivery documentation

As a team, review any canvases or business cases you have currently created, and discuss the capabilities required to execute on the delivery of your solution.

2. Narrow down on distribution, partners, capabilities

On large sheets of paper or a white-board, label three areas: "Distribution", "Partners", "Capabilities". As a team, brainstorm what needs to happen in each category on post-it notes. Take note of smaller sub-categories that may emerge.

3. Review the "in and out of skills" scope

Review the post-its, and move any that are beyond the skills of the present people or their teams onto a fourth area called "External".
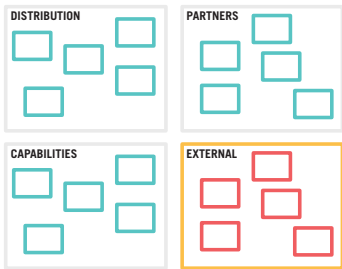
4. Discuss and assign responsibilities for sourcing external skills

Of the post-its sitting in the "External" category, are there current relationships that can be leveraged? What procurement implications might there be? Should a tender process be conducted? Are there tough discussions to be had about reducing scope? Now's the time to answer the important questions.

Pro tip
Consider capabilities in the "partners" category to be relationships you have already cultivated. Anything in the "external" category should represent new relationships you may need to forge.

MARKETING PLAN

When: you need to plan who, what, when and which channels you will activate to give your product every chance of success

Who: project team, marketing team, partners, funders

Depending on your project, it's probably a good idea to make contact with our own Australian Red Cross *marketing team* for assistance and inputs on marketing your project. Regardless, there will be varying requirements, inputs and templates you need to consider. This overall marketing plan – based on Nancy Schwartz's template[75] – can help you make sure you know the answers to the questions that you're sure to be asked, and will get your head into a marketing frame of mind.

Use it to ensure you pave a clear path forward for future communications, concrete and measurable marketing objectives, and a plan to keep your core users engaged. This card is not exhaustive, and merely serves as a high-level guide to help set you on a successful path.

- -

Example: *Christoph wants to ensure he is across all of the details he'll need to consider before marketing improvements made to the Telecross service.*

Download
Find the full marketing plan template here:
http://rcau.click/marketing-plan

MARKETING PLAN

1. Overall goals

What do you need to accomplish for success? List your top three goals to inform your marketing.

2. Benchmarks and measurement

What helps you stay on the pathway to success? List three to five concrete, measurable steps to complete en route to your goals.

3. Situation analysis

What is the environment in which you are operating? Who are the competitors? What do you know about the audience? What have you already been doing?

4. Target audiences and segments

Who are the top three user groups, and how do you break them into segments? What are their needs, habits and preferences? What's the best way to reach them?

5. Calls to action

What are you trying to get your target audiences to do? Be as specific as you can.

6. Framing the message

Why should your audience care and what benefits are you selling them?

7. Strategies and tactics

Take a longer term view; what are the best ways to motivate your target audiences? How will you develop your message to them over time? Then, it's time to plan the tactics that bring the strategies to life. This could be plans for channels to be used, key messaging, branding, or collateral development.

8. Resources

Who are the key people you will need? What are their roles and responsibilities? What budget will you need and how will these funds be sourced?

9. Step-by-step plan

How will you roll-out this marketing plan? What are the steps to take in the first 90 days? How will you extend the plan over six months? Be sure to continue to listen to feedback and analytics to gauge the success of your plan.

EXECUTE
GOALS, SIGNALS, MEASURES

When: you need to agree on definitions of success and how it will be measured

Who: project team, measurement and evaluation team

As championed by Atlassian – leaders in collaboration software – you will need your team to set goals so you know where you're headed, define signals so you know you're on the right path, and set measures you'll use to know when you've reached your destination[76].

It's a great tool to ensure your team is focused, can distinguish the signals from noise, and stay anchored to what a successful outcome looks like.

- -

Example: *Susanne is working as part of a team focused on meeting the needs of migrants in transition at our Dandenong office. There are a number of new initiatives soon to launch, but she wants to ensure we will properly understand their impact on our clients, and on our organisation's strategic outcomes in this area.*

EXECUTE
GOALS, SIGNALS, MEASURES

1. Determine the overall, broad objective of your team efforts

This could likely be a goal or outcome of the organisation's strategic focus, or an important area of work that has recently emerged.

2. Brainstorm all the goals your team will need to pursue

Make sure goals speak to outcomes, not output. Don't make them too big or too small.

3. Decide on the top three goals

Set aside all other goals into a "not doing" category. Review your selections, are you comfortable?

4. Determine signals for these goals

You should be able to "listen" for these signals – they will feel like typical key performance indicators (KPIs).

5. Determine the measures for your goals and signals

What does success actually look like? What would make you stop pursuing a goal? Make these S.M.A.R.T.
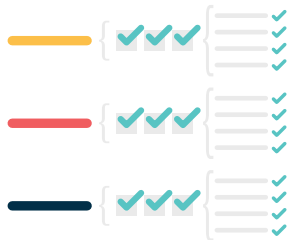
S.M.A.R.T. criteria for measures

- **Specific** – target a specific area for improvement
- **Measurable** – quantify progress in that area
- **Assignable** – specify who is responsible
- **Realistic** – make it doable given the available resources
- **Time-related** – specify when the result will be achieved

Pro tip
Struggling to understand the difference? Here's an example:

Goal: feel fit, healthy and confident this summer

Signals: exercise three days/week, losing one kg every fortnight

Measures: BMI drops by 20%, lost 10kg, run 5km in 20 minutes

EXECUTE
MINIMUM VIABLE PRODUCT

When: you need to release a version of your product or service focused on accelerated learning, measurement and validation

Who: project team, suppliers, key partners

A minimum viable product – often referred to as "MVP" – is a version of your product or service aimed at collecting the maximum amount of validated learning about users with the least effort[77].

This doesn't always mean building a fully-functioning product; the purpose is accelerated learning. There must be some sort of measurement applied in order to direct the learnings taken. Additionally, the building of an MVP is a great way to minimise risk and just try something that you feel could work.

- -

Example: *Marta is heading-up an initiative to provide a new means of accessing information for visitors to our community hubs and wants to trial touchscreen information kiosks. Rather than rolling out across all locations, she works with the digital and IT teams to trial and small-scale roll-out of specially configured iPads in two locations to understand what will be of most valuable to visitors.*

EXECUTE
MINIMUM VIABLE PRODUCT

1. Primary goal

What is it that your product or service actually does? What kind of problems is it intended to solve? From this, define the main goal and place it at the top of a large piece of paper or white-board.

2. Main stages in the process

For this, think less about particular features and more about user tasks. What are the steps involved in accomplishing these tasks? Break these down into stages and place them as post-it notes across the top of your work area.

3. Features list

Try not to prioritise the features you list; use post-it notes to list of all possible features under each stage, designed to address the specific user tasks.

4. Prioritised features

Sort the features by priority. Ask yourself the following questions:

· How important is this feature for finishing the process?
· How often will the feature be used?
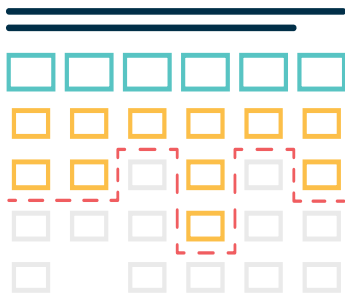
· How many users will use this feature?
· How much value will the feature bring to the user?
· How risky is this feature?

5. Define the "MVP line"

Determine the minimum set of features for each stage needed to deliver the required learnings to validate that your product or service is delivering value. Draw a line separating the required features from the "nice to have".

6. Define your MVP criteria

What criteria will you use to validate this hypothesis? What does success look like from this criteria? Can any features be removed in order for the criteria to still be valid?

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> *If I had sixty minutes to solve a problem...*
> *I'd spend fifty five minutes **defining it**,*
> *and five minutes **solving it**.*

- Albert Einstein