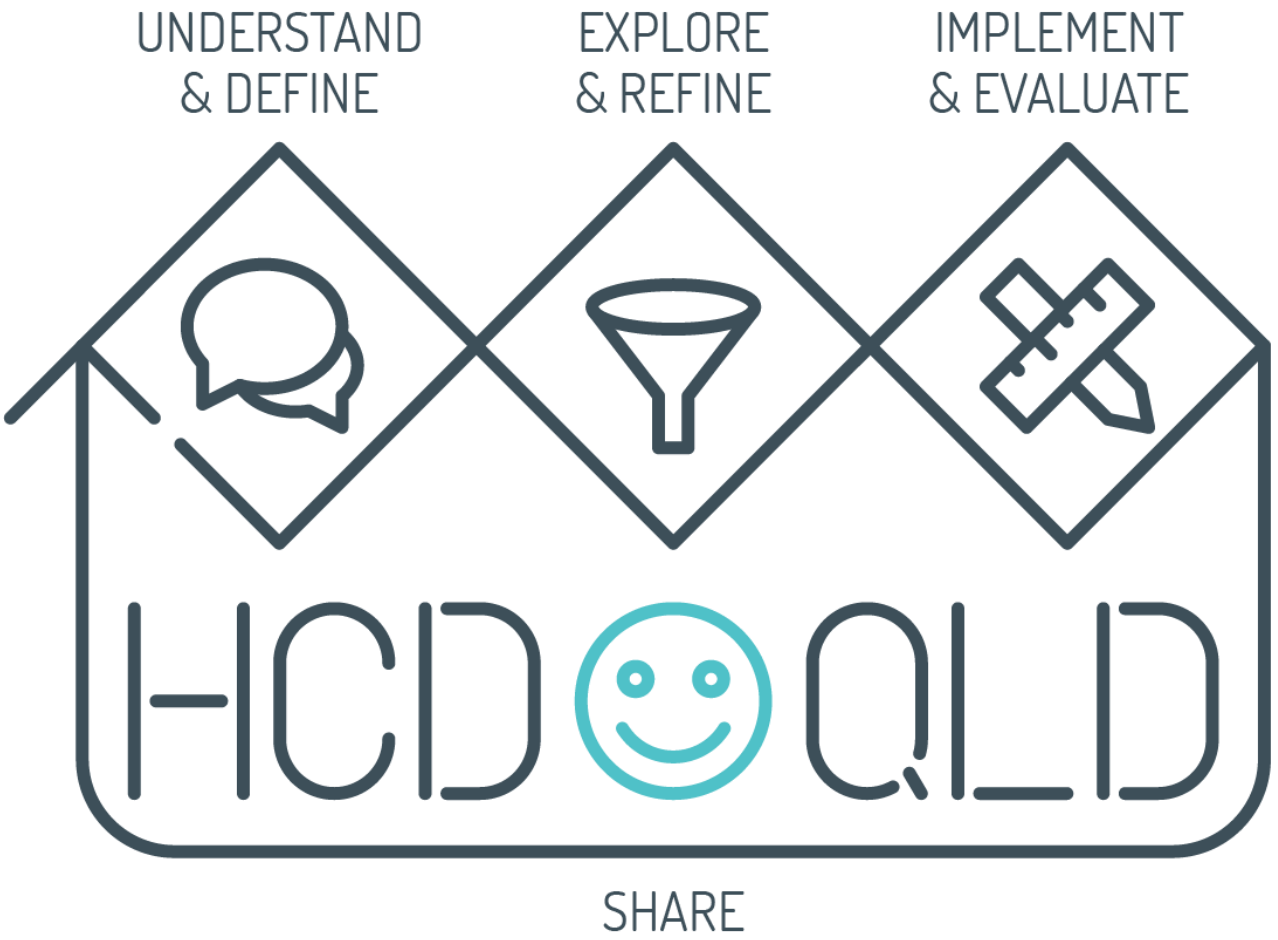


A TOOLKIT

Queensland Government

Welcome to the HCD in Queensland Government toolkit

Applying human-centred design to the way government does business will enable us deliver services that are easy to use by everyone, whether it's online, over the phone, or in person. Queenslanders expect their Government to be responsive – to understand their needs and to deliver services that are personalised, secure, easy to access and simple to use. To do this we must put our customers at the centre of everything we do. We must not only listen to our customers' needs but work with them to design services for them. Human-centred design can help us do that.

This toolkit has been designed to empower everyone to take a human-centred design (HCD) approach to the work they do. Whether you're just getting started or experienced in practicing a HCD process, this toolkit has been designed to empower you to put people at the centre of your work.

We would like to request your input and feedback on both the content and the use of this toolkit as you put it into practice in your projects.

Contact hcd@hpw.qld.gov.au

The toolkit outline will help you navigate to what's relevant for your current context or project.

Key

In each phase, you'll find a section on Unblocking. This content addresses key questions about obstacles and constraints you might face in the particular phase.

Links off to related content from other online sources.

Templates that will help you at different stages of the process for various activities.

What's in the toolkit

What is HCD?

What is human-centred design? 4
Why HCD in government? 5
Human-centred design guidelines 6
Other design approaches and how they relate to HCD 8
What government problems can human-centred design be applied to? 9
How HCD fits with other government processes and methodologies 10
How does this toolkit fit with other design and innovation toolkits? 13

This part of the toolkit will help you:

- Understand what HCD means within government.
- Gain insight into the benefits and importance of taking a HCD approach to your work.
- Speak the same design language across Queensland Government.
- Understand context that needs to be considered to design in a truly human centred way.
- Understand how HCD fits with other processes and methodologies used in and outside of government.

Why do HCD?

Benefits of adopting a HCD approach 15
Addressing common concerns 16
Where is a HCD design approach being applied in government? 18
Case studies: examples of HCD design practice 19
Case study template 22

This part of the toolkit will help you:

- Raise awareness and achieve buy-in with stakeholders and collaborators.
- Communicate the outcomes of human-centred design projects across agencies and government.

How to do HCD?

HCD up close 24
Planning & setting up for success 25
The emotional journey of the HCD process 28
Understand phase 29
Define phase 46
Explore & refine phases 51
Implement & evaluate phases 56
Sharing process and outcomes 60
Where to get help 63

This part of the toolkit will help you:

- Apply a HCD approach to a challenge and identify the skills needed.
- Assess capability and skills at different stages of development, across different roles.
- Navigate constraints and project variations (e.g. scale, budget, skills, and collaboration challenges).

WHAT

is human-centred design?

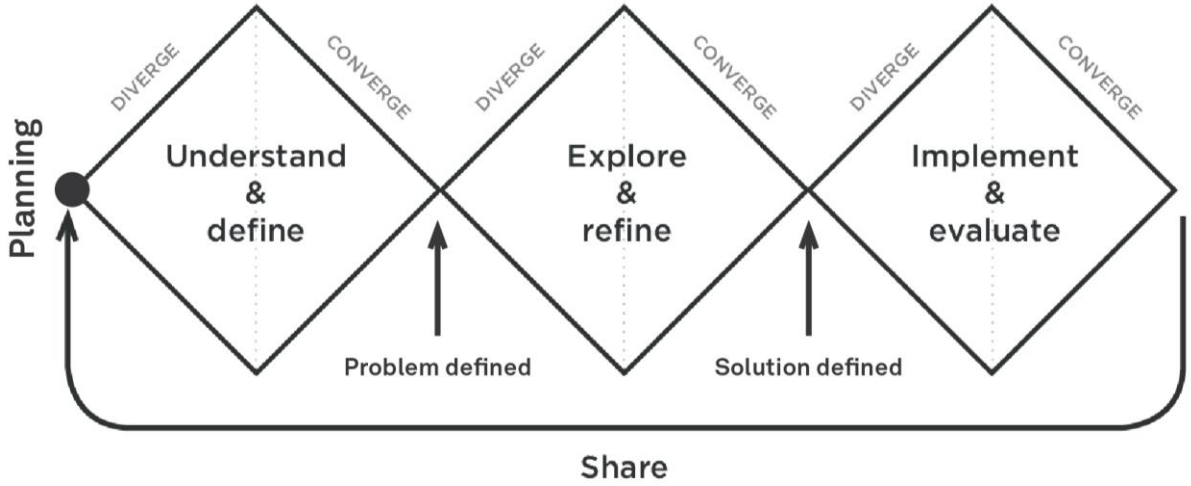
- What is human-centred design?
- Why HCD in government?
- Human-centred design guidelines
- Other design approaches and how they relate to HCD
- What government problems can human-centred design be applied to?
- How HCD fits with other government processes and methodologies
- How does this toolkit fit with other design and innovation toolkits?

What is human-centred design?

Human-centred design is an approach to problem-solving that **places the needs of people at the centre of the process**. For government, these people are all of us. They are residents, ratepayers, business owners, workers, students, visitors, and government staff.

Human-centred design involves people in all stages of the process - gathering insights, exploring many ideas through testing and refining possible solutions, and the evaluation of the effectiveness of the outcome.

Watch David Kelly from IDEO talk about what human-centred design is.



Human-centred design, as we define it for government, is a three-phased approach. It is always good practice to plan at the start and share along the way.

The goal of each phase is:

Planning	Understand & define	Explore & refine	Implement & evaluate
Who, what, when, where, how?	*Are we solving the right problem?*	*Are we solving the problem in the right way?*	*How well is the solution meeting the needs of people?*
• Who is involved and when • Set up a project space • Timelines, key milestones and activities • Share back sessions with key stakeholders	• Observational research • Interviews • Contextual research • Analysis and synthesis • Problem framing	• Idea generation • Prototyping and testing • Refining ideas	• Articulate the vision using storyboards, scenarios and service maps • Road map and implement the solution • Evaluate the success and impact • Iterate on the solution based on observation and feedback

Why HCD in government?

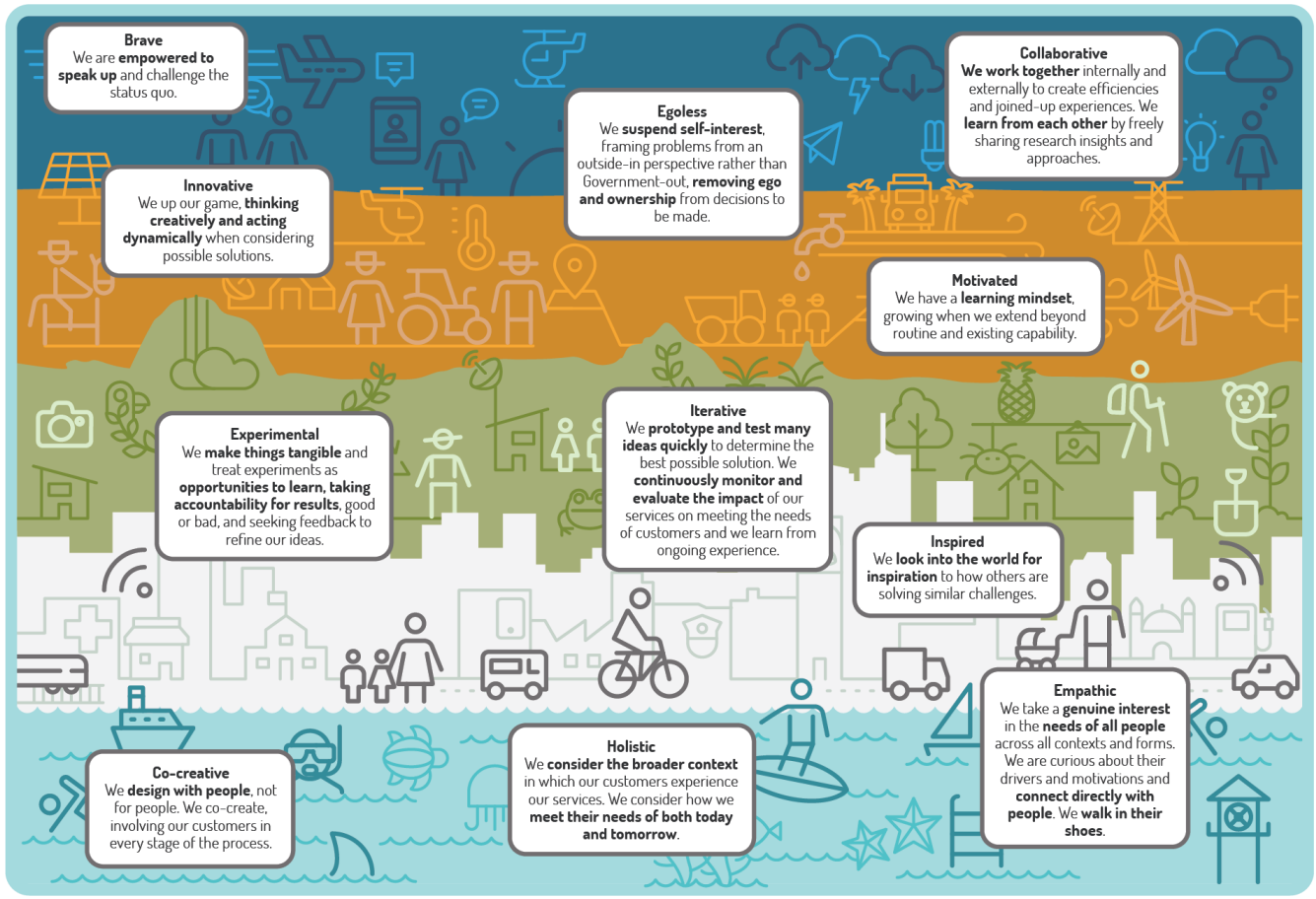
Government is dealing with more change than ever before; changes to how we live, work, play, travel, learn, and consume. We are looking to strategic design practices to inform policy, and the design and provision of services.

Good design is about making every part of a product or service work better for people, and to do this we need to put people at the centre of the design process.

We will centre our service delivery around the needs of the customer, rather than around how we are structured and organised.

We have adopted a repeatable, human-centred design approach, and you, as champions of the Queensland public, are the enablers of this.

You are a designer. To help you we have defined a set of principles that act as guidelines on what it means to adopt a human-centred approach and a toolkit to help empower everyone, at every level, to put people at the heart of what we do.



Human-centred design guidelines

What do we need to be doing, thinking, and feeling to be taking a truly human-centred design approach?		What are the behaviours, approaches, practices that directly conflict with the HCD?
Empathic	We take a **genuine interest** in the **needs of all people** across all contexts and forms. We are curious about their drivers and motivations and **connect directly with people**. We **walk in their shoes**.	• Designing primarily from subject matter expert insights. • Leading with assumptions about customer drivers, motivations, and needs that have not been supported through customer research. • Being resistant to letting the customer voice reshape the problem to be solved.
Egoless	We **suspend self-interest**, framing problems from an outside-in perspective rather than government-out, **removing ego and ownership** from decisions to be made.	• Leading with an opinion or agenda. • Holding onto our own ideas when they aren't meeting the customers' needs. • Making decisions based from fear of how we will be perceived to be failing or succeeding, rather than from what is best for the customer. • Failing to let go of our old assumptions and preconceptions about our customers and their needs and behaviours considering customer research and insight.
Holistic	We **consider the broader context** in which our customers experience our services. We consider how we **meet their needs of both today and tomorrow**.	• Designing in isolation of other experiences and interactions a customer has across whole of government. • Designing reactively to meet the needs of today while putting off addressing how needs should be met in the future.
Collaborative	**We work together** internally and externally to create efficiencies and joined-up experiences. We **learn from each other** by freely sharing research insights and approaches.	• Letting internal processes and challenges prevent cross agency collaboration, discussion, and sharing around services and experiences.
Co-creative	We **design with people**, not for people. We co-create, involving our customers in every stage of the process.	• Leading with an opinion, solution, or technology. • Sacrificing the involvement of customers in the process for speed of development and delivery. • Letting a tight budget prevent finding a way to get customer input.
Innovative	We up our game, **thinking creatively and acting dynamically** when considering possible solutions.	• Following standard practice and falling back on 'default' solutions.
Inspired	We **look into the world for inspiration** to how others are solving similar challenges.	• Approaching problems as purely government specific challenges, rather than as challenges relating to meeting human needs. • Failing to seek out inspiration and learnings from HCD practices and examples across all contexts, government and beyond.

Human-centred design guidelines – continued

What do we need to be doing, thinking, and feeling to be taking a truly human-centred design approach?		What are the behaviours, approaches, practices that directly conflict with the HCD?
Motivated	We have a **learning mindset**, growing when we extend beyond routine and existing capability.	• Failing to step outside of the comfort zone on a regular basis, preferring to tread the same territory. • Turning down opportunities to learn, grow capability, and ultimately deliver better experiences to customers because it may feel scary or unknown.
Iterative	We **prototype and test many ideas quickly** to determine the best possible solution. We **continuously monitor and evaluate the impact** of our services on meeting the needs of customers and we learn from ongoing experience.	• Taking a big bang approach to developing and revealing solutions. • Approaching the possibility of starting from square one as something to be avoided during iteration. • Treating testing as a pass or fail activity and avoiding digging too deep into how and why an iteration is or isn't meeting the underlying needs of the customer.
Experimental	We **make things tangible** and treat experiments as **opportunities to learn, taking accountability for results**, good or bad, and seeking feedback to refine our ideas.	• Approaching ideation narrowly by testing as if it were the development of the final 'thing' rather than as an opportunity to explore ways of meeting needs. • Feeling afraid to put blue sky ideas in front of customers to provoke them, preferring to start with a draft of the final 'thing'. • Holding off from revealing ideas and prototypes to customers for fear of hearing challenging feedback and 'getting it wrong'. • Promoting 'successes' and hiding perceived 'failures'.
Brave	We are **empowered to speak up** and challenge the status quo.	• Continuing with what isn't working.

Other design approaches and how they relate to HCD

There are numerous design approaches that are talked about and applied across government, and the use of different design terms can cause confusion.

A human-centred approach can and should be applied to any design process. It is about placing your end user at the centre and involving them at every step of the process. Human-centred design is not tied to the problem space or a particular subject of design. It is the act of prioritising the involvement of people who will be affected by your design in the process. When practicing any of the following design methods, the easiest way to identify if you have taken a human-centred approach is to ask yourself:

'Am I understanding the current context and designing future-state experiences by involving the actual people, customers and staff who are at the centre of the experience in every step of the design process?'

Design approach	Definition and application
Customer experience (CX) design	CX design explores the customer's journey, what they are doing and how they intersect with other services. This often includes the front of house and how it intersects with the back of house, or 'agency'.
User experience design (UX)	User experience (UX) encompasses all aspects of the end-user's interaction with the company, its services, and its products. In contrast to CX, UX is often referred to in relation to the design of digital experiences; the process ensuring user satisfaction of an experience by improving the usability and accessibility of the digital interaction with the experience.
Design thinking	Design thinking is about the act of applying design methodology and tools to problem solving. It doesn't dictate the medium or focus of design, whether it be tangible or intangible. It has been applied to a wide range of contexts, from the design of products through to organisational strategy. Design thinking is another way to describe the HCD approach.
Service design	Service design is specifically about the process and act of designing end-to-end services, rather than a specific touchpoint or interaction, thing, organisation, or systems.
User centred design (UCD)	User-centred design (UCD) is a variation on human-centred design having a premise that the users of the product or services' are at the centre of the design process. UCD is a term that has largely been applied in industrial, product and technology design domains.
Interaction design (IXD)	Interaction design (IXD) is concerned with the structure and behaviour of interactive systems. While originally focused on the interaction between people and digital interfaces, it has evolved to include the interactions between people and their environment - including products and services.
Usability testing	Usability testing refers to evaluating a product or service by testing it with representative users. Representative users interact with a product or system to identify any usability problems and provide feedback on their level of satisfaction with the product against the intended purpose.

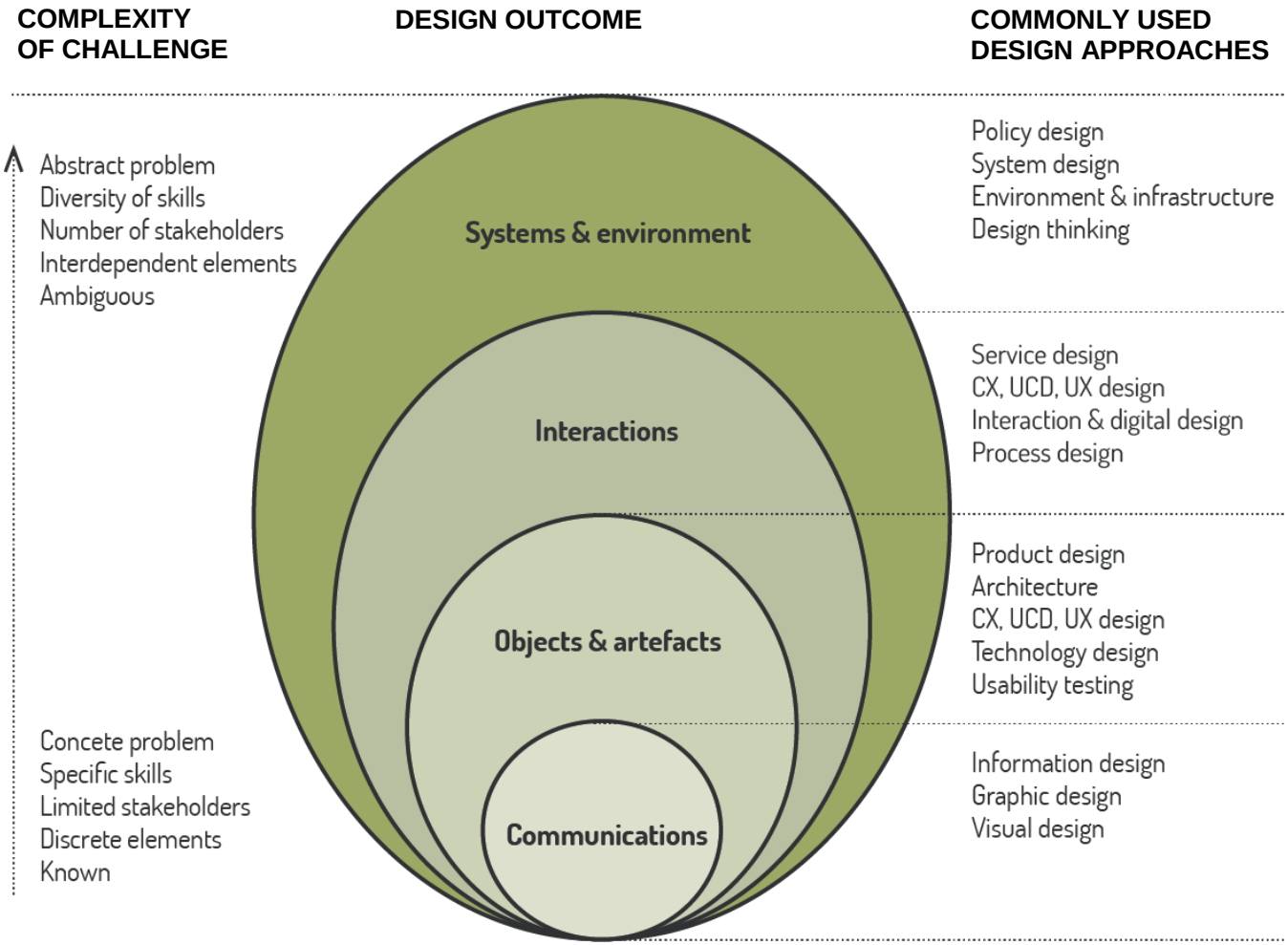
Read this article by Janna DeVylder from Meld Studio's about different design approaches.

What government challenges can human-centred design be applied to?

Government is complex; the scale of service provision, complexity of challenges, and number of agencies involved in delivering services means it can be much harder in government to redesign old and design new services and policies.

Taking a human-centred approach to designing services can help provide an understanding of the customers' needs as they engage in single interactions or single agency experiences, all the way through to engaging with complex inter-agency services and systems.

The benefit of HCD is that it's not a one-size-fits-all approach. It's flexible and can be applied to any challenge, any experience, or any service, at any scale. Looking at a problem from your customer's perspective, and putting people at the centre of your process regardless of what you are designing will benefit the end outcome for the customer as they move, continuously, within and across government experiences



Watch this talk by Steve Baty from Meld Studios on scales of design.

How HCD fits with other government processes and methodologies

Government affects all areas of the business to manage the creation of public services. Being an approach to problem solving, human-centred design works effectively alongside business strategy, procurement and project management.

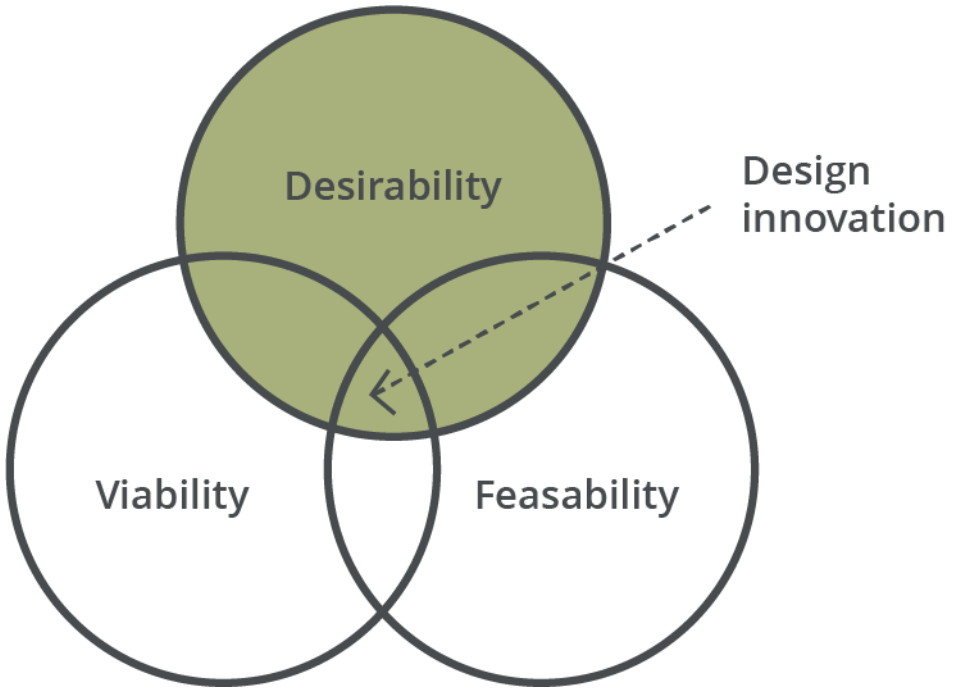
Business strategy - desirability, viability, and feasibility

Innovation and effective problem solving ultimately combines three essential components: human desirability, technical feasibility, business viability.

To be human-centred:

Involving people in the process is core to business strategy and should not be an afterthought. It is not something you can apply at the end of a project.

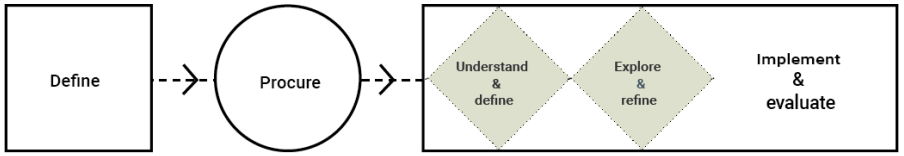
Understanding the behaviours and needs of the people who will touch your services, and considering these alongside other factors (e.g. business objectives, economic realities, and the feasibility of implementation), reveals insights and opportunities that should be built into the project.



How HCD fits with other government processes and methodologies - continued

Procurement

The following figure shows a process of procuring a solution. Typically, in government we procure a deliverable which is a defined solution—we know what it is we are procuring at the end, e.g. a box of nails, a new website, a building. When we take a human-centred design approach, we are not sure of what the problem is, nor the solution. This is changing, however there is still a culture of defining the solution prior to procurement. This does not bring people in to the decision-making process.

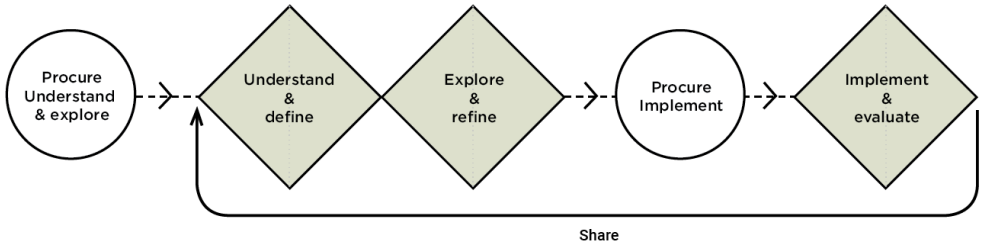


To be human-centred:

A lack of an adequate understanding of people's needs and preferences is a key factor in the failure of innovations. To enable this, we recommend a two-part procurement process:

- Procure for the Understand & Define and the Explore & Refine phases together.
- Procure for the Implement & Evaluate phase separately, later in the design process.

This will enable the problem to be identified and the solution to be designed through a human-centred approach, allowing the design process to define what is to be implemented rather than the procurement process. The second stage of procurement focuses on the implementation and evaluation phases.



How HCD fits with other government processes and methodologies – continued

Project management methodologies

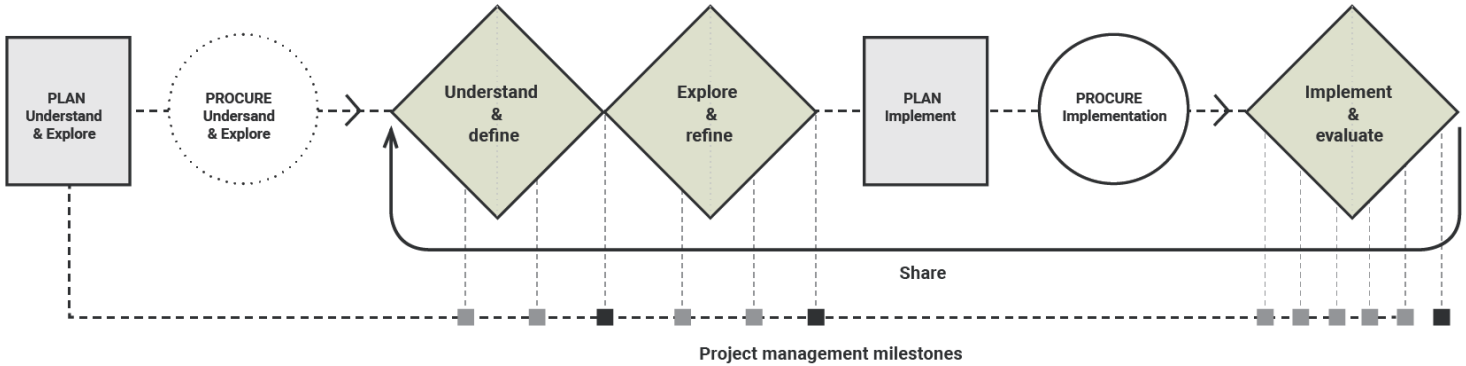
While some project management approaches used in government look to define solution specifications in as much detail as possible before any design or development begins (Prince2, PMBOK), others look to a more iterative approach (Agile).

To be human-centred:

As with procurement, when taking a HCD approach to project management, it's important to understand that the definition of what will be implemented needs to result from the design process itself. This means that it is not possible to give a detailed definition of the solution until after the 'Explore & refine' stage.

Both *Waterfall* and *Agile* approaches can be applied to manage a HCD approach. It is recommended that project planning for these approaches should occur for the 'Understand & define' phase initially. Only after opportunities have been identified and ideas tested should the solution(s) to be implemented be defined and cemented. Planning can then happen once more for the final phase of 'Implement & evaluate' phase.

In managing the activities, the 'Evaluate & define' and 'Explore & refine' phases can be managed as a whole with milestones, or be broken up into sprints. The same applies for the 'Implement & evaluate' phase.



Read this article about PMBOK vs PRINCE2 vs Agile project management

How does this toolkit fit with other design and innovation resources?

The Queensland Government has a number of resources in place to help you understand and apply design and innovation processes. These resources along with external resources detail out a wide range of concepts and methods that can be used during the different phases of the design process. You will find these linked throughout the relevant sections of the 'How to' part of this toolkit.

You should treat these resources as guides, take from each what feels relevant, iterating and adding to methods and adapting approaches to best suit the unique context and challenges that you are tackling.

Queensland Government

Resource	Author
Customer 1st training	Responsive Government

Other government

Resource	Author
Digital Transformation Agency Service design and delivery process	DTA

Non-government

Resource	Author
Collective Action Toolkit	Frog Design
IDEO Design Kit: Human centred design Toolkit	IDEO
d-School Virtual Crash Course Video	Stanford d-School
Hyper Island Toolbox	Hyper Island
Field Guide to Human-Centred Design	IDEO

WHY

do human-centred design?

- Benefits of adopting a HCD approach
- Addressing common concerns
- Where is a HCD design approach being applied in government?
- Case study template

Benefits of adopting a human-centred design approach

A key principle of human-centred design is involving people in the overall design process. When done well, a HCD approach fuels the creation of government services that align more deeply with people's needs and desires, which ultimately drives engagement and growth.

Benefits for the people of Queensland

- Services that meet the real underlying needs of customers.
- An improved customer experience of products or services.
- Less stress and frustration when using products or services.
- Removal of thought overload when determining how to use services.
- Increased popularity and use of services by customers.

Benefits for government

- Provides an external, customer perspective of the problem at hand (outside-in approach).
- Helps paint a picture of the wider context in which the problem lies.
- Saves money. Systems and services that meet the needs of people tend to cost less in support—they don't need additional assistance (or training).
- Creates a positive reputation.
- Can increase productivity and improve operational efficiency.
- Reduces project risks of a 'failed' service.
- Builds organisational resilience.
- Helps staff understand and build empathy for customers.

Adddressing common concerns

You can expect resistance when adopting a HCD approach. Finding ways to navigate common concerns is a part of being a successful HCD practitioner.

To help you, throughout this toolkit you will find tactics and methods for how to best respond to and combat these concerns.

Common concerns people have about adopting a HCD approach

- We don't have the time to carry out a HCD approach
- It is expensive to involve customers in the process
- Involving customers will slow us down
- Customers aren't always right
- If we talk to customers, we might find problems we can't solve
- Talking to customers will raise their expectations of what we can and will deliver
- There's no point adopting a HCD approach if the solution has been decided
- We don't have the skills in our team to adopt a HCD approach

Case studies

Examples of human-centred design in practice

Where is a human-centred design approach being applied in government?

HCD practices are being applied by government locally, nationally, and internationally. The following case studies outline the design challenge the teams faced, the process and methods used, and people involved, and the impact their solution had on their audience.

Other Australian Government

Project	Agencies	Focus areas
New approach to child protection in NSW	Family and Community Services	Justice
Enabling change with Aboriginal families in SA	Department of Communities and Social Inclusion	Family and communities
How the BOM put users' needs first	Digital Transformation Agency, Bureau of Meteorology	Environment

International

Project	Agencies	Focus areas
Housing of vulnerable adults	Mendip District Council	Housing
Rough Sleepers	Adur and Worthing Councils	Housing

Case study – Housing and homelessness project

Design Challenge

How might we design a face to face service for people who need housing (& other support), so that they feel supported and able to have a fulfilling life in Queensland?

This project was triggered by the need for the Fortitude Valley Housing Service Centre (HSC) to relocate. While the primary scope focussed on the physical space and customer experience of the HSC, the design process allowed for a broader understanding of the customers journey, stakeholders and employees.

This project followed a human-centred design framework which places the needs of people at the centre of the process. To achieve this, the following research was conducted:

Clients

13 7 Applicants
6 Tenants

External Providers

6 Interviews

Staff

3 Workshops

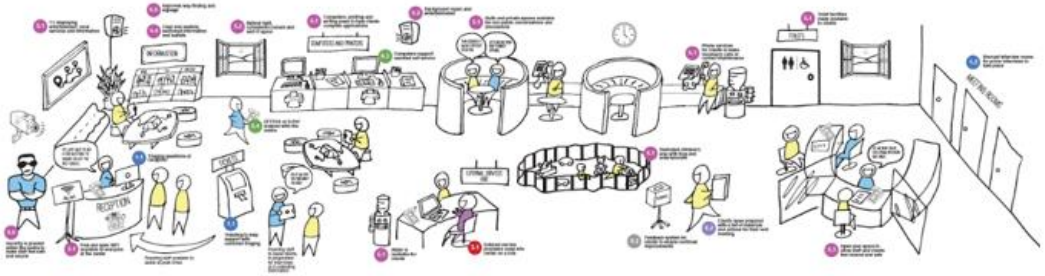
4 Centre visits
- Group sessions
- Interviews and observations

Secondary Research

Client Surveys, Feedback and Reports

The customer journey was mapped and key insights, pain points and opportunities were then identified

Using the pain points and insights from the research, an idea generation workshop was conducted with staff, stakeholders and service providers. From these ideas, a total of **38** concepts were created.



Housing Service Centre concepts – these concepts relate to what should be made available within a HSC

Staff concepts – these concepts relate to changes that are needed by staff to support the successful transition to a new HSC.

Client concepts – these concepts relate to changes to the client's journey.

Testing and prototyping sessions were conducted in a live environment which enabled the project team to further refine these concepts. Further sessions were conducted with all staff members which allowed them to provide feedback and further refine these concepts.

Live testing at the HSC

Testing with HSC staff

"I have really appreciated being engaged on this project and being asked to contribute to it. Being allowed to express what is important to us and what worries us and then seeing it addressed has been great."

~ HPW staff member

This process has been very valuable to the Housing and Homelessness Division, who continue to test the concepts further in the Fortitude Valley HSC. The Division plans to roll out this process across the State, with a focus on place based staff, customer and stakeholder engagement. Further investment is being made at the initial contact phase to better understand customer needs and ensure the most appropriate service is provided.

Case study – Victims of crime project

Design Challenge

How could Government better co-ordinate care, support and legal processes to help Queenslanders affected by crime get back on their feet sooner?

Following a human-centred design approach, **primary and secondary research** was undertaken in order to capture a holistic understanding of the current state journey of Queensland victims of crime. The following research was conducted:

Community interviews

34

- 20 x Primary victims
- 9 x Secondary victims
- 5 x General population

Stakeholder interviews

16

- 3 x QPS members
- 3 x VAQ staff
- 7 x NGOs
- 2 x Queensland Health
- 1 x Redbourne staff

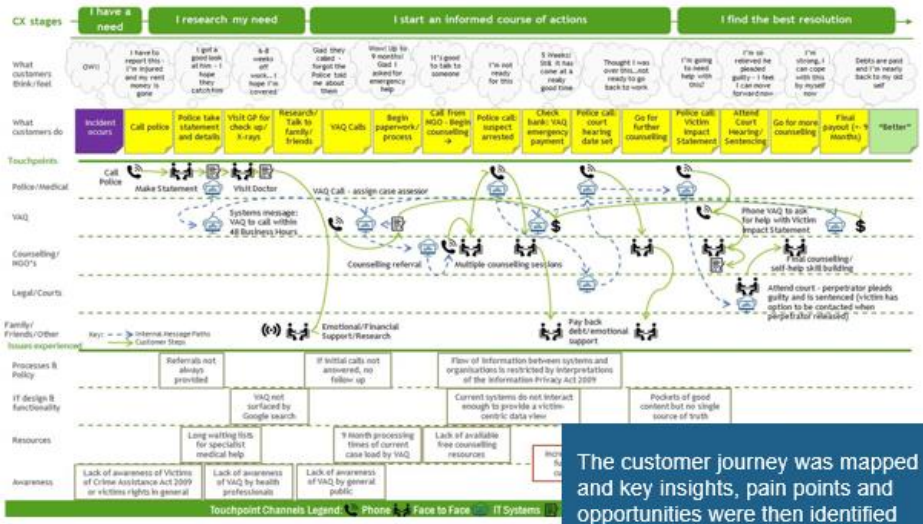
VAQ centre visits

2

- Brisbane & Cairns
  - staff interviews & call observations

Secondary Research

- Stats (QPS crime stats, Google Analytics, Google Trends)
- Lexer social media listening
- Processes (VAQ, Redbourne)
- Global victims of crime portals



The customer journey was mapped and key insights, pain points and opportunities were then identified

Based on these interviews and secondary data/research, a number of key insights emerged, as well as critical design criteria that future solutions should focus upon to be successful from a customer's point of view and address key pain points for victims and their families.

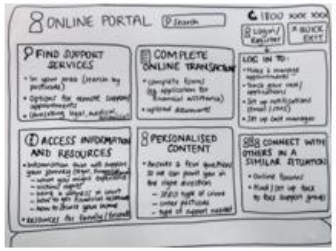
Design Criteria				
	Give me guidance	Keep me informed	Make me feel safe	Support me when I need it
Personalise it	Join up around me (not you)	Tell me what to expect	Be empathetic	Make it simple

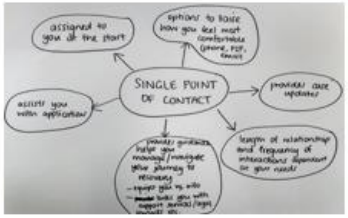
An **ideation workshop** was held with key stakeholders where over 100 ideas were generated based on the research insights and customer pain points. From these ideas, six key concepts were crafted aimed at meeting the design criteria (customer desirability). They were also assessed against viability and feasibility.

Ideation workshop with key stakeholders

These concepts were presented back to victims and stakeholders to gain feedback for further refinement via one-on-one **concept testing** sessions. Three of the six concepts (below) strongly connected with victims during concept testing, with the remaining three providing support from a process and systems perspective.

Digital – To create a digital platform that serves as a single source of truth for victims of crime by providing them with information, transaction and communication resources that they can access either anonymously or via an account.





Case manager – Optional dedicated case manager who provides personalised support, guidance, check-ins, and referrals that relate to the emotional, financial, practical and legal aspects of their journey, This allows victims to receive culturally sensitive support that is targeted specifically to their needs as they arise.

Financial – Alternative and/or additional solutions to the current evidence-based financial reimbursement model. The purpose of this would be to both alleviate the often unexpected financial burden that a victim often has to bear as well as reduce the current length of time it takes to make a payout.

This process has enabled partnering agencies to better understand the holistic journey a victim of crime goes through and has provided customer focused design solutions that will alleviate pain points for victims of crime and enable them to get back on their feet sooner. These findings are supporting further activities that are occurring across government within this space.

Case study – Transforming employment outcomes through digitial project

Design Challenge

How can Government assist Queensland youth job seekers to find information about the supports and services that could help them find employment and training opportunities?

Creating job opportunities for Queenslanders is a state government priority. Currently 6.2% of Queenslanders aged 15+ are unemployed. Understanding their journey, their needs and expectations, as well as pain points is critical to government developing targeted solutions that result in improved job opportunities.

Through a human-centred design approach, this project considered and explored how digital transformation could improve employment outcomes for Queenslanders.

In the "understand and define" phase, the following **primary and secondary research** was conducted to better understand the problem space and the current state journey:

Long term unemployed

14 Customer interviews
- Males and females
- Range 18 years to 60 years

Recently unemployed

12 Customer interviews
- Males and females
- Range 18 years to 60 years

School students

6 Affinity groups
- Groups of 3 school students

Secondary research

Various reports provided by Queensland Treasury and off the web

Observations

Centrelink service centres, recruitment agencies, libraries, and other organisations in the regions

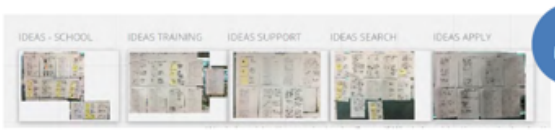
The research was analysed, synthesised and themed through an affinity mapping exercise, the customer journey was mapped and key insights, pain points and opportunities were identified. Key design criteria were also established to ensure the design solution needs key customer needs.

Analysing, synthesising and theming research

Design criteria

- Personalise it for me
- Support and information must be highly visible
- Reduce all the noise and clutter
- Help me know what my skills are and how they apply
- Informed by future work demands and trends
- Help me stay motivated and confident
- Hidden job potential: knowing who to go to
- Provide advice only when I need it
- Keep everything you show me local to me
- Make the next step in my journey easy
- Learning through feedback loops

Customer journey map



WORKSHOP IDEATION ACTIVITY

An **ideation workshop** was held with key stakeholders where over 47 ideas were generated based on the research insights and customer pain points. From these ideas, 15 were peer reviewed and ranked against the design criteria. Further activities were then conducted to refine the ideas into one concept that met all of the design criteria throughout a **10-day innovation sprint**.

RANKED AGAINST DESIGN CRITERIA

PEER REVIEWED WITH STARS

15 stakeholder reviewed ideas

The design criteria and solution concept created in the 10-day sprint was presented back to customers (job seekers) to gain validation and feedback for further refinement via one-on-one **concept testing** sessions.

"(The design criteria were) definitely comprehensive. I definitely can't think of any others."

~ Unemployed youth

During this process the customer needs, current state research, and engagement with stakeholders allowed for the identification of two Federal Government initiatives currently being piloted, which offered a viable solution to the issues experienced by Queensland youth jobseekers. In this instance the successful outcome was to leverage existing, interjurisdictional web offerings by onboarding Queensland Government services and information into existing Federal Government solutions under development (i.e. Job Outlook). The HCD process provided justification and customer evidence to advocate for several new features to be added to the current Federal Government pilot, allowing for improved customer experience, and maturing the web services offered to youth job seekers.

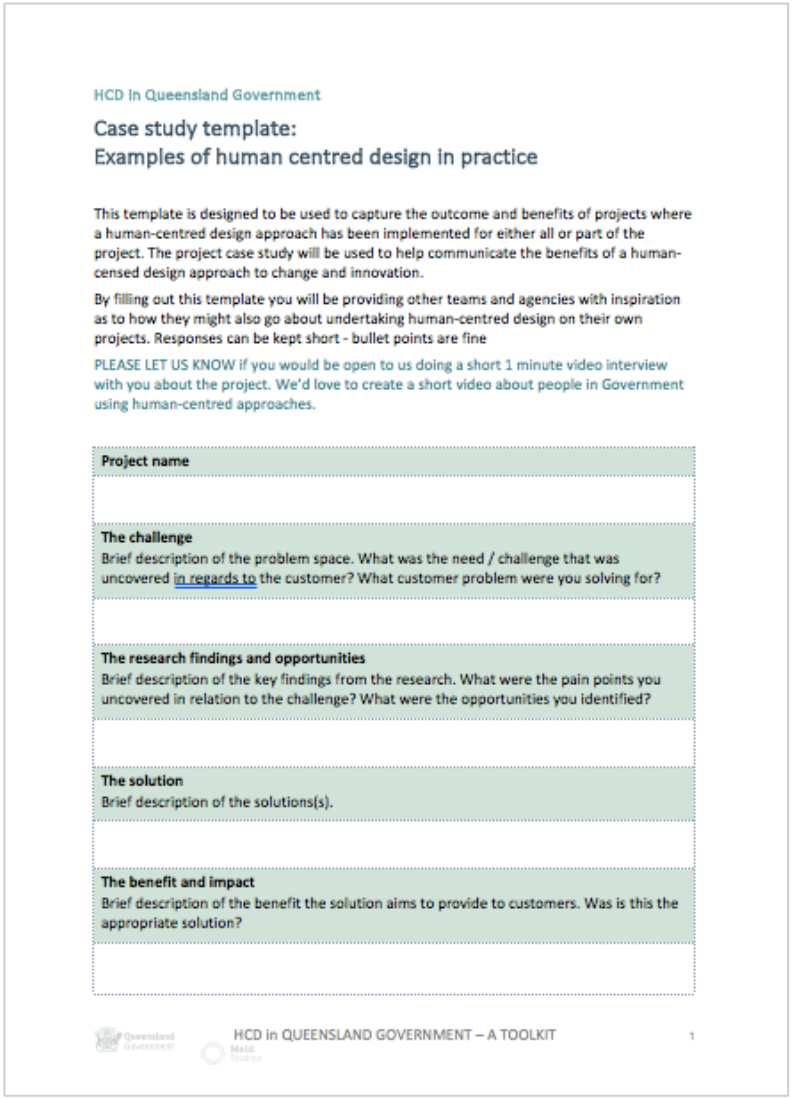
Project case study template

This template is designed to be used to capture the outcome and benefits of projects where a human-centred design approach has been taken for either all or part of the project. The project case study will be used to help communicate the benefits of a human-centred design approach to change and innovation.

By filling out this template you will be providing other teams and agencies with inspiration as to how they might also go about undertaking human-centred design on their own projects. Responses can be kept short – bullet points are fine.

Please let us know if you would be open to us doing a short one-minute video interview with you about the project. We'd love to create a short video about people in government using human-centred approaches.

Contact hcd@hpw.qld.gov.au



HCD In Queensland Government

Case study template:
Examples of human centred design in practice

This template is designed to be used to capture the outcome and benefits of projects where a human-centred design approach has been implemented for either all or part of the project. The project case study will be used to help communicate the benefits of a human-censed design approach to change and innovation.

By filling out this template you will be providing other teams and agencies with inspiration as to how they might also go about undertaking human-centred design on their own projects. Responses can be kept short - bullet points are fine

PLEASE LET US KNOW if you would be open to us doing a short 1 minute video interview with you about the project. We'd love to create a short video about people in Government using human-centred approaches.

Project name
The challenge Brief description of the problem space. What was the need / challenge that was uncovered in regards to the customer? What customer problem were you solving for?
The research findings and opportunities Brief description of the key findings from the research. What were the pain points you uncovered in relation to the challenge? What were the opportunities you identified?
The solution Brief description of the solutions(s).
The benefit and impact Brief description of the benefit the solution aims to provide to customers. Was is this the appropriate solution?

HCD in QUEENSLAND GOVERNMENT – A TOOLKIT 1

HOW

to do human-centred design?

- HCD up close
- Planning and setting up for success
- The emotional journey of HCD

Phases

- Understand phase
- Define phase
- Explore & refine phases
- Implement & evaluate phases
- Sharing process and outcomes
- Where to get help

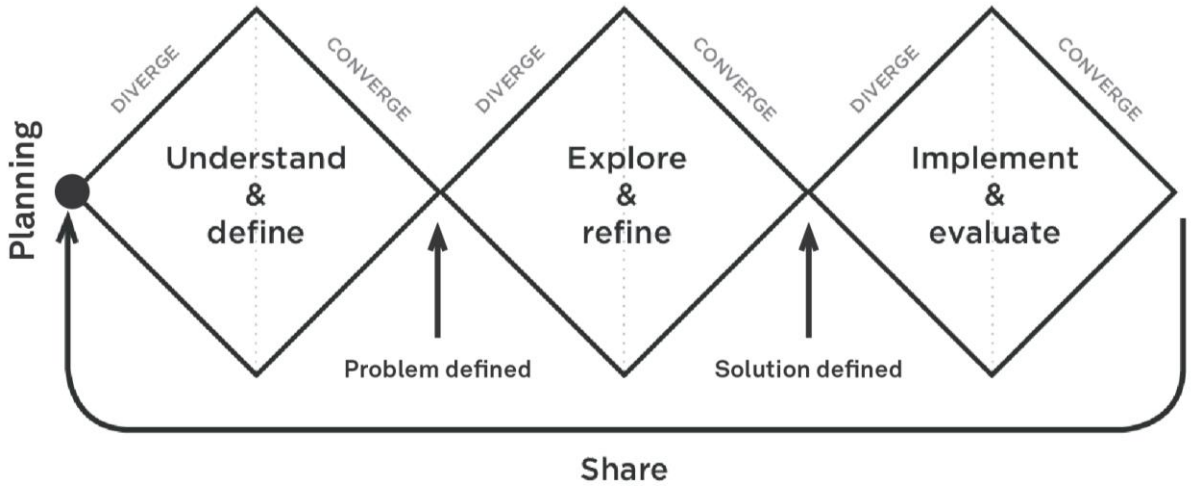
Human-centred design up close

Diverging and converging thinking

Each phase of the HDC process consists of a divergent thinking and a convergent thinking

- **Divergent thinking** (Understand, Explore, Implement) are the times when we need to try and be as open minded and exploratory as possible without restraining or limiting our thinking too much.
- **Convergent thinking** (Define, Refine, Evaluate) require us to narrow in and solidify findings, insights, or solutions.

Focusing on the relevant thinking for the part of the phase you are in will significantly increase the odds of a successful and fruitful HCD outcome.



Human-centred design approach, as we define it for government, is a three-phased approach. It is also important to undertake 'planning' to set you up for success.

The goal of each phase is:

Planning	Understand & define	Explore & refine	Implement & evaluate
Who, what, when, where, how?	*Are we solving the right problem?*	*Are we solving the problem in the right way?*	*How well is the solution meeting the needs of people?*
• Determine who needs to be involved and when • Organise and set up a project space • Plan and communicate timelines, key milestones and activities • Plan share back sessions with key stakeholders	• Observational research • Interviews • Contextual research • Analysis and synthesis • Problem framing	• Idea generation • Prototyping and testing • Refining ideas	• Articulate the vision using storyboards, scenarios and service maps • Road map and implement the solution • Evaluate the success and impact • Iterate on the solution based on observation and feedback

Planning and setting up for success

You will need to create a plan for the HCD approach you are going to take. Give thought to what kind of activities will need to happen and the roles, skills, and resources you will need to carry them out.

The approach will consider standard project logistics planning for things like budget, time, space, and any constraints. Planning a HCD approach can be integrated into any specific project management methodology your agency may use.

It is recommended that planning be done as a group. A checklist is available to support your planning activities.

It is recommended that you consider each phase of HCD approach as outlined in the toolkit to ensure you are giving thorough consideration and emphasis to all aspects of the process.

You will find helpful suggestions in the 'Unblocking' sections within each phase: these will help to approach and plan for different constraints (e.g. budget and time restrictions).

Planning resourcing – skills required for HCD approach

The skills required to take a HCD approach have been summarised into the Meld Studios Skills Matrix 1.0. The skills required of each phase are identified in the relevant section. Use this matrix to assess the capability you have to complete each HCD activity and to identify gaps. This will help you plan resourcing in light of the activities that will happen in your project, both for internal teams and external support required. This will help you understand where you can undertake an activity yourselves and where the team will need help.

This Skills Matrix is an adaptation from a matrix developed and used by Meld Studios. It cannot be shared, edited or reproduced without the permission of Meld Studios.

Resources

Templates	
HCD approach planning checklist	Meld Studios
Methods & tools	
Create a project plan	IDEO
Meld Studios Skills Matrix 1.0	Meld Studios

Planning and managing the project – skills required

The following are key skills for the planning phase and managing a project.

- Plan the approach
- Manage the project plan
- Manage the process
- Manage the project team
- Design and run workshops and presentations

Refer to the Meld Studios Skills Matrix 1.0 for descriptions of the skills and competency scales.

Planning and setting up for success

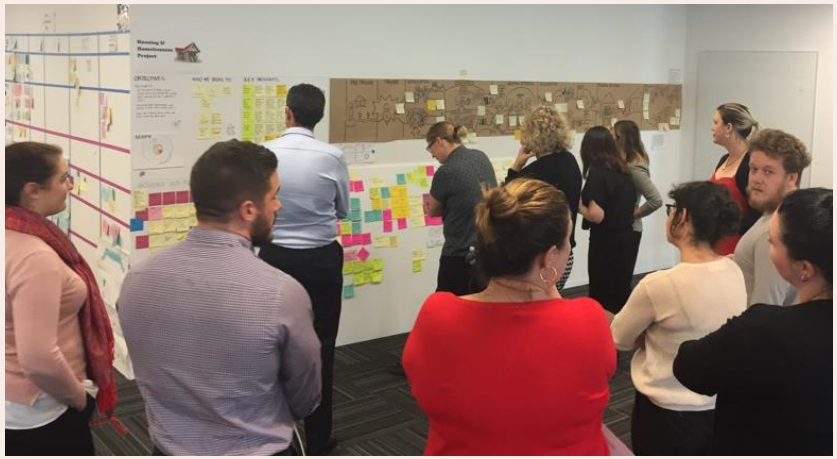
Shifting people from questioning to understanding the benefits of a HCD approach can be pivotal to the project success. It can also be challenging. Below are some methods to help develop understanding and foster buy-in of human-centred practices.

Externalise the process

Share the approach you are taking to your work, externalise your findings and thinking as you go. You can do this by holding small regular (weekly/fortnightly) showcases of your work, using design walls to display progress, create short presentations or videos and share through internal channels.

Working walls

How to set up a war room



Working wall at the Queensland Government

Share stories from the research

Create short videos or presentations that include participant quotes, photos and video outtakes to share internally.

Meld Studios sharing research at the DTA. Photo credit: Meld

Comparable case studies

Point to case studies that have solved a similar problem and describe benefits.

Have people connect with peers who are adopting a HCD approach

Connect people with peers across agencies in local, state and federal government who are adopting an HCD approach to discuss the benefits.

Include people in the process

Identify and onboard sponsors and key stakeholders to help them understand the HCD process so they are involved and supportive. Senior stakeholders need to be given particular attention to ensure they have the information they need to support the team. Take people out on research with you and have them be note-takers. Involve them in insight sharing and ideation sessions.

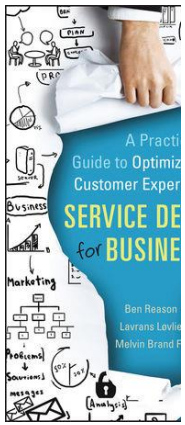
Queensland Government staff involved in research session

Reference materials

The following books are recommended as a resource for how design approaches can be used to solve complex problems.

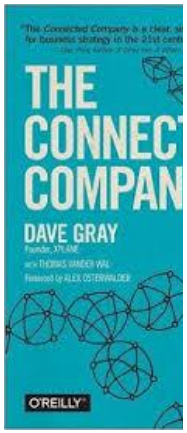
[Service design for business]

Ben Reason, Lavrans Løvlie, Melvin Brand Flu



[The Connected Company]

Dave Gray



[Dark Matter and Trojan Horses - A Strategic Design Vocabulary]

Dan Hill

Communicating the benefits—skills required

The following are key skills for communicating the benefits of a HCD approach.

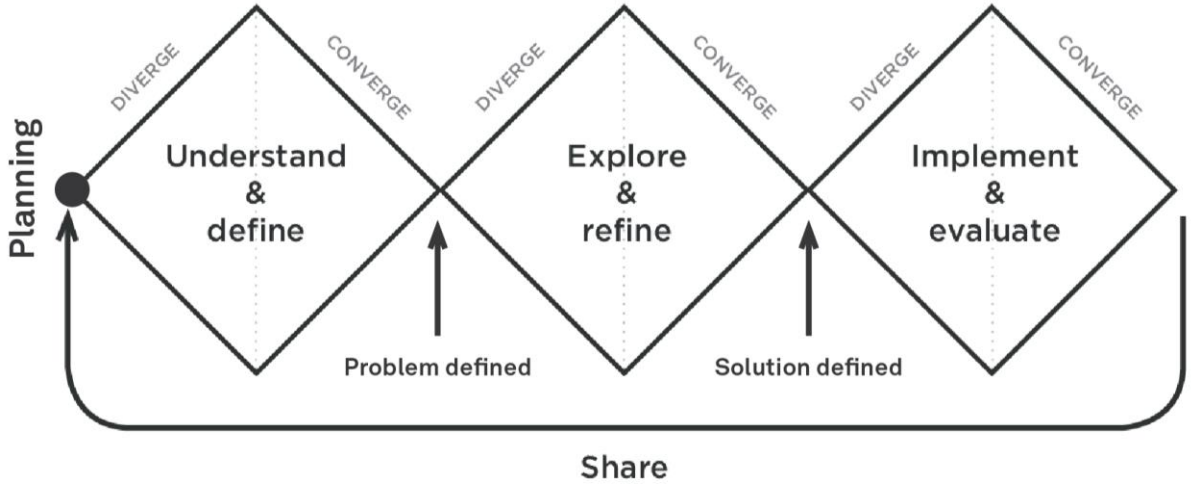
- Talk about the design process

Refer to the Meld Studios Skills Matrix 1.0 for descriptions of the skills and competency scales.

The emotional journey of HCD

HCD is a practice. Some of the activities might seem difficult at first, and you may feel overwhelmed at times. It requires practice. Don't be afraid to reach out for help.

Email hcd@hpw.qld.gov.au for questions and support.



What to expect emotionally at each phase of the process:

Understand	Define	Explore & refine	Implement & evaluate
Anxious *Excited*	*We've learned so much!* *Overwhelmed*	*Where do we start?* *Let's do this!*	*This is great!* *It's not working*

Understand

Key activities

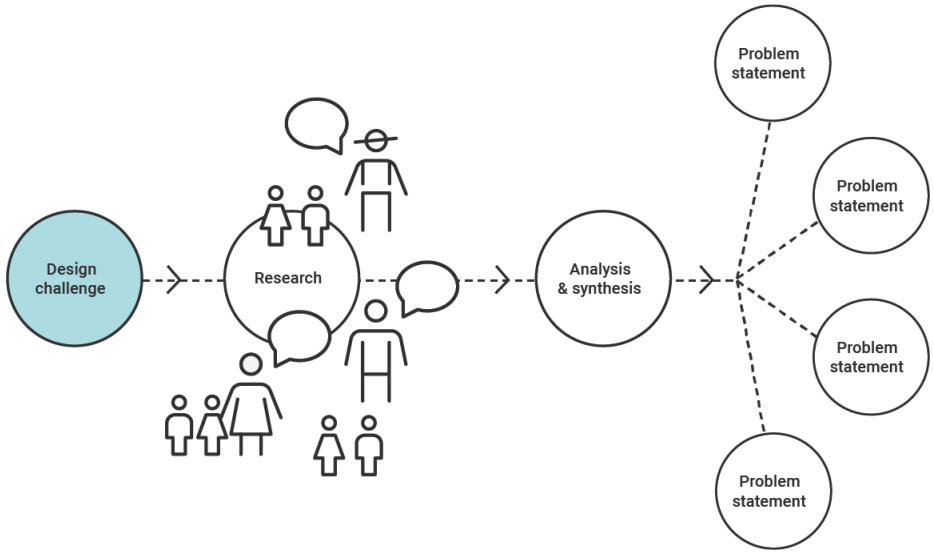
1. **Identify the design challenge** - broadly define the problem space
2. **Define the people you are designing for** - identify the people you are trying to reach
3. **Undertake research** - understanding the problem space by listening to and observing people
4. **Making sense of what you've heard** - processing of data synthesis and interpretation
5. **Articulate findings -** communicating research findings

1. Identify the design challenge

The design challenge is the broad statement about, or scope of an identified problem. It gives you a starting point.

A design challenge:

- should be worded in human terms, from a customer's perspective
- should be open, from which multiple avenues of possibility exist – it is not a solution statement
- should consider constraints and context
- should contain both explicit and implicit human needs
- will help you define your customer and the focus of your research.



Where design challenges come from

The design challenge can originate through insight or hypothesis.

Insight-led problems

- Start with an intent or area of focus identified from research undertaken with customers, or observations of existing customer experiences in action.
- Typically involve customer and internal stakeholder research up front and allow for multiple-problem statements to be identified and concepts to be tested in parallel.

Hypothesis-led problems

- A person, agency, or department has a strong opinion/idea that needs to be tested.
- The understand phase is usually restricted to talking to internal stakeholders and subject matter experts.
- Testing involves validation rather than exploration of possible problem areas and multiple solutions.

Examples of good and bad design challenges

Good	Not good
How might we improve the experience of starting a business in Queensland?	How do we create one place to go to start a business in Queensland?
How might we help people feel safe when using public transport after hours?	What safety devices will help people feel safer when using public transport after hours?
How can we support more people in Brisbane to commute by bike?	How do we create more bike lanes in the Brisbane CBD?
How do we improve the experience of staff getting IT support?	How do we create a better way for staff to log IT requests through a smart form?

Resources

Templates	
HCD approach planning checklist	Meld Studios
Methods & tools	
Frame Your Design Challenge	IDEO
Design Challenge Guidelines	Stanford d-School wiki lab

Key questions - getting unblocked

Question	Answer
I've been given a design challenge that is framed as a solution. What do I do?	Though one part of the solution may be defined, you have an opportunity to create possibilities for alternate solutions by reframing the problem. • Where did the design challenge come from - was it insight or hypothesis led? • What is the broader problem space the solution is addressing? • Who are the audiences who are impacted by this problem space? • Do you know enough to determine whether the proposed solution is the best one? Based on the above, how might you define the design challenge?
I have reframed the design challenge. How do I communicate my new problem statement back to the project owner?	It is important to help project owners better understand how to frame design challenges. To communicate your new problem statement, take the owner through the process you went through to redefine the challenge and discuss the differences in light of the four points above.
I'm dealing with stakeholders who think customer input will just slow us down and get in the way	Bringing stakeholders along on the journey is a key part of being a HCD practitioner. This is even more critical when stakeholders are yet to be convinced of the benefits of a HCD approach. Case studies of where the HCD process has been successful within government and the key benefits experienced by customers and government is a good place to start when trying to communicate the importance of involving customers.

2. Identify people you are designing for

The next step is to identify the people you are designing for. You will want to think about who interacts with or is impacted by the problem space both internally and externally.

This might include:

- Residents, ratepayers, business owners, workers, students, visitors.
- People with distinct interests and needs.
- Government staff, both at the frontline and operational, and stakeholders.
- Private organisations or corporations.
- People who are associated with your direct audience.

Resources

	Methods & tools	
	Define your audience	IDEO
	Customer 1st	Responsive Government

Key questions - getting unblocked

Question	Answer
There is disbelief that we, as government, have customers.	Government exists to serve, support and protect the people that live in, work in and visit the state, so that they have the best opportunity to lead fulfilling, productive lives. These people are all customers of government. If there is disbelief, ask them how they themselves are a customer of government services. Do they use public transport, hospitals, or roads for example?
I believe the scope of the audience is not comprehensive enough.	In going through the exercise of defining the customer, you may find that the original picture of who you need to design for was too narrow or simple. Widening the scope may seem like an expensive decision, both time and resource wise, however it's important to ensure we're always designing with and for the people who will be impacted by our solution. If at any point in the HCD process you think that your definition of who the audience is should be revisited it is important to call it out.

3. Undertake research

Acknowledge what is already known - secondary research

Having defined the design challenge and identified the audience, the next step is to undertake research.

Before you commence new or primary research, it's a good idea to review any existing research related to your design challenge. This includes:

- Market research or consultation activities from your own or other agencies who have previously conducted projects in a similar space.
- Government and non-government projects that have covered similar territory.
- Externally published research by industry bodies and academic institutions.
- Operational data such as performance of existing services, such as web statistics and call centre data

This research can help you get an initial understanding of the audience and the context, and identify gaps that need filling as part of your primary research.

Resources

Methods & tools	
Secondary research	IDEO

Depth interview.

Contextual research and research recording.
Photo Credit: ARipstra, Creative Commons

Choose research methods and design the research

The following are typical design research decisions:

- Who should I include in my research?
- How should I recruit participants?
- Which approaches should I use?

Identify participants for research

Having identified your audience, you will now want to target people who are, or have the potential to be, your customers to understand their context. You should consider demographics such as age, gender, ethnicity, class, employment, and location.

When you recruit for research try and ensure you have a good cross-section of participants, including some who are not typical. Diversity is critical in human-centred design. Do not just focus on recruiting an average sample.

Intercept interview. Photo Credit: University of Cambridge, Creative Commons

Resources

Methods & tools	
Extremes and mainstreams	IDEO
Recruitment specification template	Responsive Government
Recruitment specification example (simple)	Responsive Government
Recruitment specification example (complex)	Responsive Government
Recruitment script template	Responsive Government

Recruiting participants

There are several ways you can go about recruiting participants for research.

Method	Description	Pros	Cons
Approach people in their environment	Go to the environment where your customers are and talk to people	• Quick & low cost • You talk to real customers	• Not much time with people • Rejection is hard to take
Internal recruitment	Ask someone for leads Recruit people through your internal networks Ask people to volunteer their time	• Low cost • You talk to real customers	• Takes time & effort to reach out and organise • Doesn't always reach representative customers
Specialist participant recruitment agency	Brief a recruitment agency to recruit for you	• The recruiter handles finding customers, so it takes less of your time • You can specify the amount of time you want to spend with the customer • Get representative customers	• There is a cost associated with external recruitment, including recruiting fees and participant incentives
A guide to incentives			
Giving incentives	Giving incentives may be necessary to recruit people to speak with. However, this may not always be appropriate so be sure to be clear on this first. Incentives are usually provided to offset any costs associated with the customer's participation in the research (e.g. travel costs), and as a thank you for their time and input.	Typical incentives include: $80 for 1 hour – General population $120-$150 for 1 hour – Businesses Gift cards - Some cohorts under 18, and people where cash might be an issue (e.g. youth becoming independent, social housing, first responders)	It is also recommended that any monetary incentives be managed and provided by an external third party for detachment purposes.

Reference: Meld Studios – Introduction to Service Design training

Methods of research

Below are the most commonly used HCD customer research methods. You might consider using one or a combination of them on a project.

Method	Description	Pros	Cons
Contextual research	Observing and interviewing participants as they go about activities in their 'natural habitat'	• Understand people in the moment in their environment	• Involves travel to the participant's location
Depth interviews	Interviewing participants retrospectively about their experiences	• Participants travel to central location • If conducted in a research facility, the ability to have viewers	• Can't see environmental cues or actual context • Participants' recollections are often unconsciously biased
Intercept interviews	Short impromptu conversations intercepting people as they go about their lives	• No cost except for your time • Can approach a variety of people	• Unsure how a participant meets your recruitment criteria before you talk with them • Not everyone wants to talk with you • Rejection can be hard
Cultural probes	Gathering insights from people without your involvement, via a workbook, worksheet, camera, audio recorder, or ideas box containing provocations	• Less time investment once set up • Can provide rich media data • In the moment thoughts and actions recorded	• Need follow-up with a participant if meaning and clarification are needed
Longitudinal research	Obtaining insights from a set of participants over a period of time	• Can observe change over time	• Need to wait for a time period to get data
Observations	Observing people as they go about their tasks	• Understand people in the moment in their environment	• Inability to follow-up with a participant if meaning and clarification are needed unless you intercept the participant
Group discussions	Getting a group of participants to come together to discuss their experiences	• Time effective • Participants can bounce off one another in discussions	• Risk of group-think • Can be hard to capture quotes and insights from everyone • Can require stronger facilitation skills to guide the discussion
Stakeholder interviews	Doing interviews with stakeholders in parallel with some of the other methods, to understand the organisational context	• Get internal perspective and context, including feasibility and viability, constraints and opportunities	• Customer insights are needed in addition to stakeholders - they are not customers.

Reference: Meld Studios – Introduction to Service Design training

Considerations when conducting research

- Have participants sign a research consent form which enables you to collect the kind of data you need (information, photos, videos, audio)
- Create a research guide
- Assign research roles (interviewer and note taker)
- Beware of cognitive biases when interviewing participants
- Never conduct research in people's own environments by yourself, always make sure you go in pairs, for safety.
- Consider potential cohort specific requirements, such as the need to hold a current Blue Card when interviewing minors.
- Try to limit the number of researchers present to two for one-on-one sessions, so as not to overwhelm participants.
- Ensure to comply with the *Privacy Act 1988,* avoid storing individual research participant's names or data that could identify them - along with your notes or transcripts. Consider assigning them a code in a separate document to your notes and use that code instead of their names when taking notes and referring to the research findings.

Research code	Name	Role	Phone	Email	DOB
S01	Collin Smiff	CEO	0415 544 396	collin@amp.com	20/8/93
S02	Nancy Yuen	CMO	0412 888 524	nancy@amp.com	11/02/70
C01	Pim Patto	Research subject	0415 475 236	PimOK@hello.org	19/05/01

Resources

Templates	
Research consent form Research guide	Responsive Government
Methods & tools	
Design research techniques	CFC Medialab
The art of the interview	Meld Studios
Conducting interviews	IDEO
Expert interview	IDEO
Group interviews	IDEO
Interview questions - The Five Whys	IDEO
Research guides	Harvard University Sociology Department
Digital tools for design research including research recording and cultural probe tools	IDEO Labs
Guidelines for ethical research in Australian Indigenous studies	AIATSIS (Australian Institute for Aboriginal and Torres Strait Islander Studies)
Observational research	Deakin University
Code of Professional Behaviour	AMSRS (Australian Market & Social Research Society)
Tips for protecting yourself Links: (1) (2)	(1) SRA, (2) University of Leicester

Outputs - recording and communicating your research

The following are ways you can record and communicate your research.

Accurate, detailed notes	As you conduct an interview or observation, take notes. We recommend you also have a dedicated note taker to take detailed notes. Try to take down as much raw data, in verbatim form, as possible. This will help you remember the session later, as well as prevent you from processing what you are hearing too early on.
Audio recordings	Audio record the interview with the participant's consent using a voice recorder or voice recording app on your mobile phone. Ensure you are interviewing in a quiet environment or sound quality might be affected if not using a lapel microphone.
Videos	Record video outtakes of key points made by the participant. Ask them to repeat these points / quotes at the end of the interview and record using a camera or mobile phone.
Photos of people and the environment	With their consent, take photos of participants. If conducting contextual or intercept interviews, photograph the context, environment and key artefacts.
Transcripts	You can have transcripts made from audio recordings to extract key findings and quotes.

Reference: Meld Studios – Introduction to Service Design training

If you do choose to collect audio or video recordings as part of an interview, ensure that you also consider the security, retention and disposal requirements associated with the *Privacy Act 1988*.

Recording research notes into a structured template. Photo credit: Meld Studios.

Key questions - unblocked

Question	Answer
What counts as customer research?	Speaking to, observing, or seeing data created by actual customers using one or more of the methods above is customer research. Anecdotes from subject matter experts and those who haven't interacted directly with customers is not customer research.
How do you do customer research when you don't have the budget or timeframe?	There are many ways to do customer research inexpensively: • Recruit through internal networks (work/friends/family) and ask for volunteers • Intercept interviews • Observational/intercept research • Cultural probes You can supplement any of these with a minimal amount of externally recruited participants to fill any gaps. If pressed for time consider interviewing pairs or trios, enabling them to bounce off each other. This resource provides a way to approach activities when working with a budget and/or time is a constraint - research participant recruitment methods, research methods, scale of research.
Why can't we just do a survey?	While surveys are a valid method of conducting research, they do not yield the type of research data and insights that are required for a HCD approach. The research methods discussed here are qualitative in nature. Qualitative research tries to understand the context of the person in relation to the design challenge. This research approach is only loosely structured, giving the interviewer the opportunity to look beyond 'the what to the why' of thoughts and behaviours. The resulting data is unstructured, and the meaning is extracted through analysing what was heard and then organising it into themes and insights. In contrast, surveys largely concentrate on 'the what' of what is happening. They are inherently structured in nature and as the researcher is not usually present, they can't follow up on the threads that surface during the research session. The researcher needs to plan out in advance exactly what they are seeking to understand, which is not always possible when the problem to be understood has not yet been defined. Surveys can prove useful to measure the degree to which a problem exists and degree of impact with a particular audience once it has been discovered through qualitative research. Here is a good description of the difference between qualitative and quantitative research.
What if I hear something that I don't know how to solve/address?	We conduct research because we expect to hear things that surprise us, things that we would not have known otherwise. You should go into research prepared for the unexpected. What you do with what you hear is the bit that matters. Often participants express wants and desires that seem out of scope of our work on the surface but are just pointing to core unmet needs that may very well be within our ability to address. It's important to remember that research gives us an opportunity to understand these core needs and how they manifest within the context we are designing. This ensures that whatever piece of the future experience we end up designing for, big or small, it never sits in isolation.

	Sometimes you might hear things in research that call for a rethink of the problem to be solved - these are the moments to be brave and speak up if a project needs to be reimagined or even stopped.
How do I know when I've done enough research?	You know you have spoken to enough people when you hear them repeating insights and you stop learning anything that's really different. • For contextual or depth research, consider starting with around 12 x 60 minute sessions with one to two people in each. • For group sessions, consider starting with around 3 x 90 minute sessions with up to five people in each. You can run group sessions for many more participants, however the more people you have the harder it is to capture their thoughts. Structured capture sheets can help with this. • For longitudinal research consider starting with more people as attrition may cut down numbers over time. • For observational research and intercept interviews allocate yourself a chunk of time that seems sensible and fits with your project timetable. You should consider what time of day/week will be best.
I'm not comfortable talking to / interviewing people	• It can be scary to interview people when you are first starting out. Remember that participants have agreed to take part in research and are therefore willing to be questioned. • It's good to let participants know at the beginning that if there is any question they would rather not answer or topic they don't wish to discuss, to just let you know and you will move on.
I don't have experience interviewing people, it's a lot to manage	As you conduct research for the first time, there's a lot to learn. You are trying to make the participant feel comfortable, ensure you ask the questions you need, listen to and guide the interview, and observe. If you are new to this, make sure you conduct research in pairs and be very specific about your roles. Dedicate one person to be the interviewer and the other to take notes. That way you can focus on your specific task without having to do too much juggling.
What should I focus on during my research?	• Focus on each person's general needs, aspirations, and pain points first. Then gradually direct the focus to the problem you are trying to understand or solve. • Create a research guide that has detailed notes on how you will introduce yourself and your research, key topics you need to cover, questions you could ask, and any equipment you will need. • Use your guide as a starting point but follow the lead of the research subject to see and hear what's most meaningful to them.
How many researchers should attend each session?	• Try to limit the number of people at each season to two: A primary interviewer and a note taker who can pitch in questions when needed. • Observers can watch interviews if the interviews are conducted in specialist research centres with one-way observation facilities. • If there is an opportunity, bring other staff along to the research session (they don't have to be on the project team). Doing this helps build their empathy for the people you are designing for.

4. Making sense of what you've heard

Having conducted research, you will undertake a process of synthesis and interpretation of the raw data to extract patterns in what you have seen and heard, uncover themes, and subsequently develop insights. These insights will be used to frame the opportunities to be explored.

Writing up your research

You are encouraged to externalise your research findings to allow everyone to stand back and see the big picture. You want to write up your research in a way that allows you to reorganise individual 'what you heard' statements during the analysis and synthesis process.

Resources

Methods & tools	
How to use post-it notes to write up your research	Matt Cooper-Wright
Why use post-it notes for writing up research	NN/g
Empathy maps	Studio by UX pin
Download your learnings	IDEO

Analysis and synthesis

Analysis—the 'what' (what we heard or saw)

Analysis is the process of breaking down our research findings into their individual parts. Here the goal is to convey what you've seen, heard and read.

- What are people thinking, seeing, feeling?
- What do they need?
- What's getting in their way?
- What are the big themes?

Synthesis—the 'so what?' (what this means)

Synthesis is the process of combining multiple pieces of data into a whole, to understand shared qualities between each individual part.

- What does what we heard mean in relation to our problem?
- How is the information connected?
- What is the impact of what we are seeing?
- What are the underlying themes of what is being said?
- What's the heart of the problem?

A typical method for analysis and synthesis is creating affinity mapping.

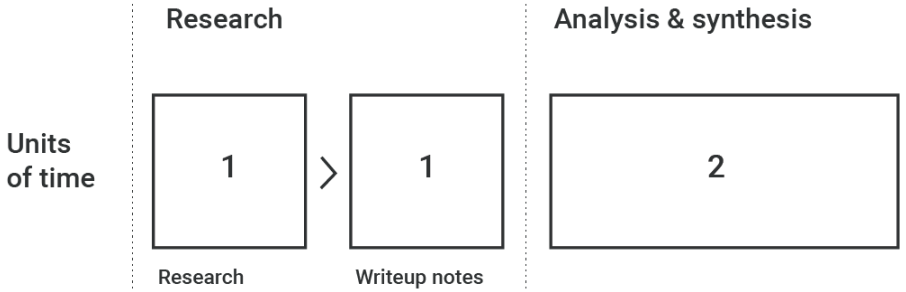
Adapted from: Meld Studios – Introduction to Service Design training

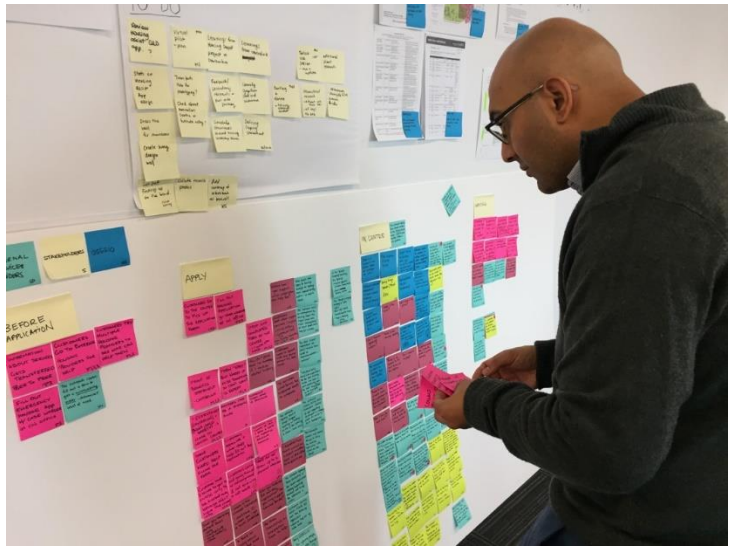
Photo of affinity mapping from a Queensland Government Online Engagement project.

How much time does it take to do analysis & synthesis?

When planning analysis and synthesis, the following ratio of units of time is a good rule to follow – for each day of research, you will need a day to write up what you heard, and then two days for analysis and synthesis.

While this might sound like a considerable amount of time to spend on an activity, it is an integral step in the process. By investing time upfront you will ensure that the customer experience is truly understood, and that you have the problem clearly defined. This will save you time, effort and potential re-work in the long run.





Affinity mapping on a Queensland Government Online Engagement project.

Resources

Methods & tools	
Affinity mapping (video)	Gulraiz Khan
Design synthesis (video)	Jon Kolko
Patterns in research	Meld Studios

Key questions - unblocked

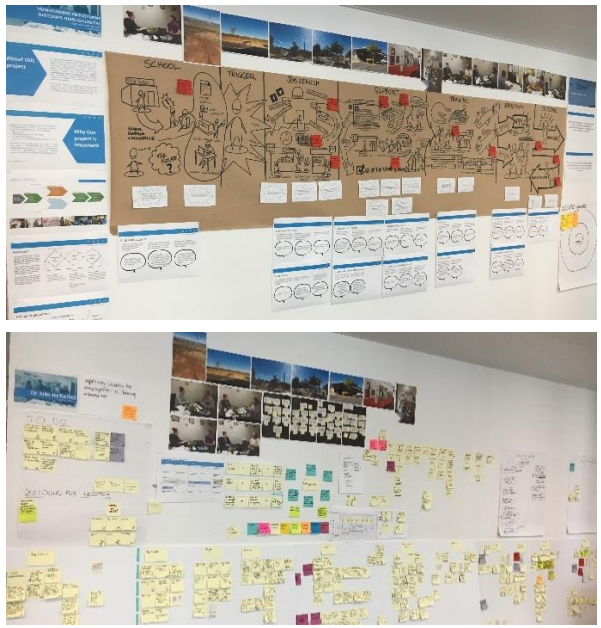
Question	Answer
It's hard to keep an open mind and not jump ahead to the practicalities.	While we will ultimately need to consider the practicality of implementing a solution at the end of the HCD process, now is not the time. Be careful to not filter the research findings or evaluate their importance based on how easy it may or may not seem to solve them. Slipping into the habit of solving for quick fixes or avoiding seemingly difficult challenges will not result in the kind of service and experience improvements that put customers first and help government to be better.

5. Articulate the research findings

Communicating research findings is key to having a clear articulation of what customers have been telling us. Having clear, appropriate, engaging and sharable communication of the research findings can create empathy for the customer and build buy-in to the process. The findings give voice to the context studied including the people affected, what's happening well, what could be done better and the associated opportunities.

The output should articulate:

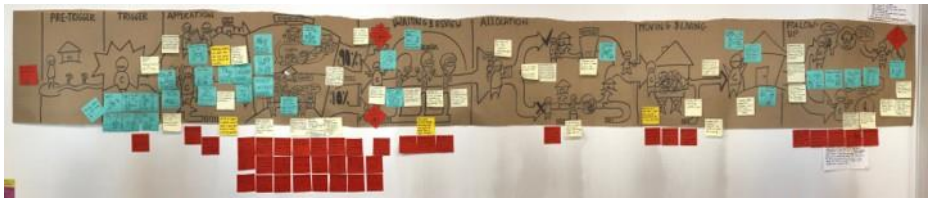
- The design challenge
- The audience
- The research methods/process
- What you saw and heard



Examples of working design walls.

Different methods of articulating research findings include:

Current state journey maps	A journey map is a visual diagram that illustrates the activities and emotions a 'customer' goes through when engaging with an organisation around specific goals. It should be told from a customer's perspective.
Service maps	The system map is a visual diagram of the service or ecosystem. It includes the different actors involved, the interactions with different services and parts of the system. It usually shows many flows and interactions.
Service blueprint	A service blueprint contains the customer journey as well as all the interactions that happen to enable the journey - the things going on behind the scenes from an operational perspective. In essence the current state journey map and the service map combined.
Design walls	Design walls / working walls are a way to externalise your project and learnings as you go. It gives people an opportunity to interact with the project on an ad-hoc basis, or as a place for presentations, stand-ups and showcases.
Presentations & reports	Presentations and reports should include the elements mentioned above. Make sure the presentation or report is appropriate to the audience and the purpose. Use diagrams, photographs and visuals where possible to ensure the message is easily digested.
Videos	Videos are a digital storytelling method that engage the viewer through a mix of audio, video and image. Videos can include: • Key insights • Photographs of materials used in research • Participant quotes • Video outtakes of research participant session • Photographs of participants Videos should be no longer than 2-3 mins in length. Videos should be used internally only, to protect participant confidentiality.



Low fidelity journey mapping.

Example journey mapping template.

Resources

Templates	
[Journey map template](#)	Responsive Government
Methods & tools	
[Visualising a story through journey maps](#)	Meld Studios
Presentation tools	[Prezi](#) [Powtoon](#)
[Icons](#)	Icons - Noun Project

Key questions - unblocked

Question	Answer
How to create buy-in with stakeholders who feel that 'the customer isn't always right'	Take key opportunities to bring these stakeholders along on the same journey you are on to understand customers and their needs. • Invite and encourage them to come along to research sessions • Involve them in mini-playbacks of what you are hearing along the way • Bringing the stories and voices of customers to life through photos, videos and quotes. This can be a powerful way to build empathy

Understand phase – skills required

The following are key skills for the Understand phase.

- Plan research
- Conduct research
- Analysis and synthesis
- Articulate findings

Refer to the Meld Studios Skills Matrix 1.0 for descriptions of the skills and competency scales.

Define

Key activities

1. **Identify and prioritise opportunities** - A clear expression of the problem from the customer's perspective
2. **Define the problem to be solved**
3. **Consider success measures** - Identification of how you will measure the impact of the solution from a customer and business perspective
4. **Create design criteria** - Customer needs to keep in consideration when designing a solution

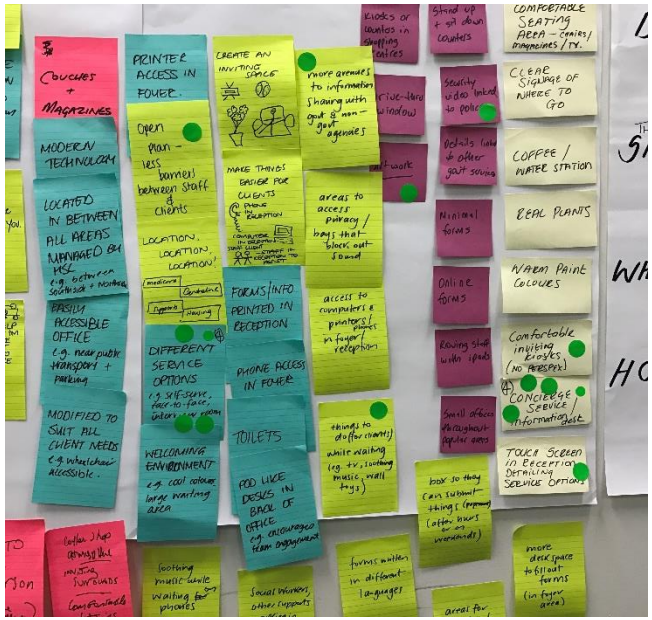
1. Identify and prioritise opportunities

Having identified key insights from your research, you can extract the key opportunities in relation to the design challenge.

Prioritising opportunities can be done against many criteria, but should involve the perspective of the customer based on the research. Prioritising by Desirability, feasibility, and viability can be a good place to start.

Resources

Methods & tools	
Create insight statements	IDEO



Prioritisation exercise with dots.

2. Define the problem(s) to be solved

Frame your problem

How you frame your problem affects the way you think about it. If you have framed your problem without a deep understanding of the problem, you may be solving the wrong problem. Why-how laddering can help with this because repeatedly asking why can help you identify deeper needs, motivations and values, then asking how repeatedly helps you find actionable ways these needs may be designed for. Doing this can give you multiple ways of seeing the problem. Use these frames to inform your problem statements.

Generate problem statements

Spending time exploring problem statements can lead to opportunities that sit at varying levels of change and impact:

Disruptive

Disruptive statements are purposefully provocative. Problems are framed in this way to agitate thinking, challenge clichés and drive towards significant changes.

- A typical question you would ask is **'What if….?'** e.g. "What if people no longer paid to use public transport?"
- The SCAMPER technique is a way to push thinking.

Incremental

Addressing current issues can lend itself to more incremental approaches to change.

- A typical question you would ask is **'How might we…?'** e.g. How might we make it easier for people to pay to use public transport?"

The aim is to generate a high volume of diverse problem statements. This is an exercise in divergent thinking, which should result in many possible solutions. As with framing the design challenge, these statements should avoid being solution oriented or focused.

E.g. How might we make it easier for people to buy tickets through ticket machines on buses? Is too solution oriented.

A good problem statement inspires many different ways of solving a problem. A bad one limits the way you're able to think about it, or is too paralysing to inspire ideas.

Good problem statements

How might we make buying a ticket feel seamless?

Bad problem statements

Too limiting: How might we make it easier for people to buy tickets through ticket machines on buses?

Too broad: How might we make it easier to buy tickets?

'How Might We' formula

How might we [insert action]

for [insert stakeholder(s)]

so that [insert desired outcome]?

Resources

Methods & tools	
Why-how laddering	Stanford d.school
SCAMPER technique to push thinking	Alex Osborne
How might we statements	IDEO
How might we questions	Stanford d.school

3. Consider success measures

In this step, you will need to start considering important milestones in the life of your solution and come to a shared understanding of what succeeding looks like.

Think about a variety of time horizons. What is success in the next two months, in the next year, in the next five years? Imagine success in terms of both your organisation and the people you're designing for. What does success look like in terms of how you've affected them or changed their lives? What would be different for them?

While it might seem a bit early on in the process to start thinking about what success looks like, particularly given you haven't got a solution in mind, it's good to start considering and capturing baseline measures. This will become important in the 'Implement & evaluate' phase where long-term, we look to measure the impact our solution or project is having, and the benefits it provides to our customers.

Questions to ask to determine success measures

Based on the research and the identified opportunity(s), what is the change we want to see because of our innovation / solution?

- Change in customer behaviour
- Change in staff behaviour
- Change in business operation
- Change in costs

Key questions - unblocked

Question	Answer
There are strong business agendas influencing the HCD approach. What can I do?	Sometimes you will need to take the little wins when you can. Change in complex organisations like government takes a long time, not every project you set out to take a HCD approach for will succeed in the way you hope. This doesn't mean that it isn't worthwhile or doesn't have an impact. Even the smallest injections of HCD into an otherwise business-driven approach can make a difference.
How do I know whether to go for incremental or disruptive change?	Aim for disruptive change and scale back. The level of trust and collaboration your partners have in the process will help determine the extent of change to aim for. Budget and time will also come in to play.

4. Create design criteria

The Define phase will also see the development of design criteria. Design criteria can be defined as the explicit goals that a solution must meet for the solution to address the customer's challenges/problems. They are the customer factors you will need to keep in mind throughout the process that will assist you in designing the best solution – ensuring how your potential solutions are going to meet customer desirability.

Design criteria are usually developed from insights gathered from customers as part of the Understand and research phase. They are simple and straightforward statements that are in customer-speak.

For example, a pain point that customers could identify around not being informed about where their application was up to or when to submit documents could translate to a design criterion of 'Keep me informed'.

Example design criteria.

Define phase – skills required

The following are key skills for the Define phase.

- Problem definition
- Consider success measures
- Create design criteria

Explore & refine

Key activities

1. **Generate concepts** - Generate multiple concepts to solve the problem
2. **Prioritise concepts to be tested**
3. **Iteratively prototype, test and refine the concepts** to identify an appropriate solution(s)

1. Generate concepts

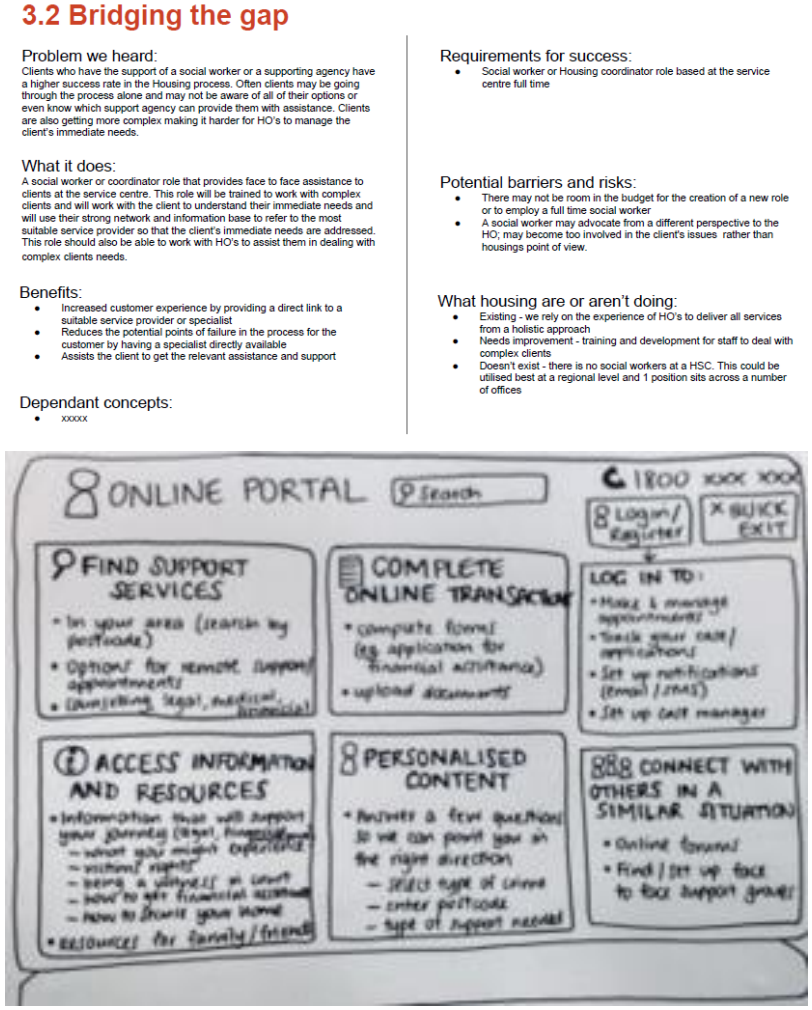
The basic premise of concept generation is the rapid creation and iteration of as many ideas as possible. We quite often refer to them as ideation workshops.

Key considerations for generating concepts:

- Avoid any one person being responsible for generating ideas. Idea generation is a team sport and diversity of thinking should be encouraged.
- Take a multidisciplinary approach. Invite people with different skills, specialties, backgrounds, and roles in your agencies and from other agencies to take part in the ideation process.
- Invite stakeholders and management to be involved. It gives them visibility of the process and provides a channel for them to express their own ideas without permitting ownership. Ultimately it will help you to generate buy-in.
- Build on each other's ideas. Pass a concept through many people to be critiqued and built upon until it no longer resembles the original idea. You are aiming for ego to be evaporated and ownership of an idea to be quickly lost.
- More ideas are better. You want to create and extend as many ideas for as long as possible. Never settle on your first idea.
- Learn to give good feedback. Learn to take feedback. Feedback and iteration is what will improve ideas.

Resources

Methods & tools	
Idea generation tips	Meld Studios
Idea & concept development	Hyper Island
Concept card template	Responsive Government



Example concept cards.

2. Prioritise concepts to be tested

Follow the same method for prioritising concepts to be tested as you did for prioritising opportunities. Be sure to refer back to the research insights, success criteria, and design criteria.

Key questions - unblocked

Question	Answer
How can I help people to think beyond what's currently possible?	It can be difficult and even confronting to be asked to ignore the constraints and restrictions that you work within every day. It is no surprise that many people struggle to let these filter the way they see problems and solutions, even if it's just for an hour in a workshop. The following are some strategies to help you help other people: • Start by acknowledging the constraints they face day to day. • Give people a chance to first have their frustrations with the current state heard, before you move on to thinking about the future. • Verbally give people permission to be unrestrained in their thinking. • Provoke thinking with statements like 'if you had a magic wand…'.
What if we raise people's expectations of what we will or can actually deliver?	• The way you frame your testing sessions is key. Always be clear with participants that the research materials they are looking at are draft ideas that have been put together to better help the research team understand how people want their needs to be met and what parts of the concepts they find appealing or undesirable. • Although you may hear less new things as you progress through each round of testing, it is always a learning exercise and never a validation exercise. Validation is for the implementation phase of a HCD project.

3. Iteratively prototype, test and refine the concepts

When testing concepts and prototypes it is important to know which ideas will work best for your audience. It is ideal to start with loose concepts and build up to higher fidelity prototypes as you gain customer feedback and confidence in your solution.

Types of prototypes and when to use

Type of prototype	Examples	Pros	Cons
Generative prototypes Collaboratively generating and iterating on ideas	• Theatrical tools	• Cheap to make • Fast to generate • Immediate feedback	• Can be challenging to get people to take part in the activities as they are often outside of people's comfort zone
Descriptive prototypes Describing the service experience	• Concepts • Stories • Storyboards • Service maps • Physical models • Business origami	• Cheap to make • Quick to produce • Can be widely distributed	• Is not self-explanatory for people, requires translation to elicit feedback • Doesn't give a real sense of the experience
Immersive prototypes Low and hi fidelity imitations of an actual experience	• Role-plays	• Provides participants with a pseudo real experience to react to • Enables feedback on detailed parts and overall experience offering	• Requires participants to suspend disbelief • Can be time consuming to setup and run depending on the complexity of the offering
Pilots Semi-real but limited experience of an actual thing	• Pilot • Pop-up store	• People can experience the real thing in a real context • Enables collection of real metrics/data • Can be iterated on over time	• Publicly visible • Usually requires high effort and expense to set up

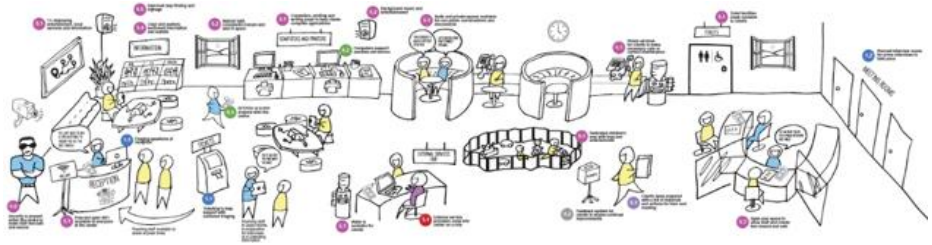
Reference: Meld Studios – Introduction to Service Design training

Planning prototyping

- When planning your prototyping activities, you need to consider:
- What hypothesis are you testing?
- Who will you test with?
- What's the best way to test the concept / idea?
- What tasks / activities will participants need to do?
- What props and equipment will we need?
- Where will the testing be conducted?
- How will the findings be captured?

Resources

Templates	
Prototype planning template	Stanford d-School
Methods & tools	
Types of prototypes	Interaction Design Foundation
Determining what prototype	IDEO
Paper prototype	Stanford d-School
Storyboards	IDEO Design Kit Service Design Tools
TMR customer lab	Contact the TMR Customer Experience Team TMR_Customer_Experience@tmr.qld.gov.au



Prototyping concepts.

Prototyping in practice.

Explore & refine phase – skills required

The following are key skills for the Explore and refine phase.

- Generate ideas
- Create concepts
- Evaluate concepts
- Refine concepts

Refer to the Meld Studios Skills Matrix 1.0 for descriptions of the skills and competency scales.

Implement & evaluate

Key activities

1. **Communicate the vision**
2. **Plan and implement the solution**
3. **Continually evaluate the impact and iterate** based on observation and user feedback

1. Communicate the vision

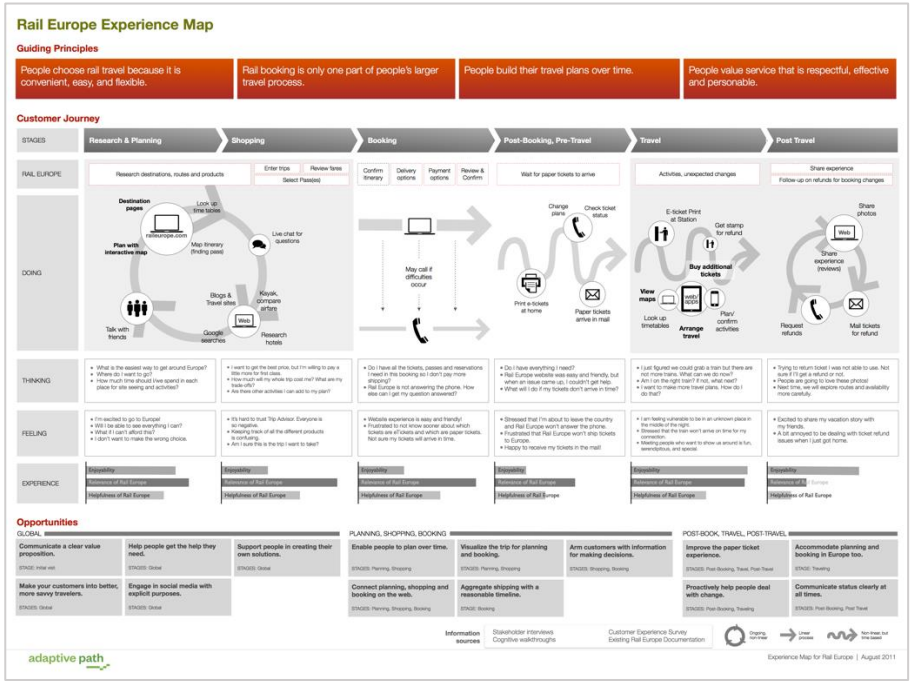
On narrowing down and refining the possible solution(s) through prototyping and testing, you can now articulate the vision for the future ideal state experience.

The vision you communicate may have any of the following applications:

- To communicate intent from a customer's perspective
- To communicate the people, process, and tools required to bring a solution to life
- To inform government strategy
- To inform future project prioritisation and roadmaps

Different methods of communicating the future state include:

• Future (ideal) state maps • Visualising a story through journey maps	A future state journey map is a visual diagram that illustrates the ideal journey the customer will go through (including activities and emotions) when engaging with an organisation to achieve specific goals. It should be told from a customer's perspective.
Future-state service blueprint	A service blueprint contains the customer journey as well as all the interactions that happen to enable the journey, such as the things going on behind the scenes from an operational perspective.



Rail Europe future-state journey map. Credit: Adaptive Path

2. Plan and implement the solution

After you have articulated the appropriate solution, you will need to plan for the implementation of it. This process should include:

- Prioritisation and road mapping of solution elements and features
- Detailed designs
- Time, budget, and resource estimates and planning
- Change management planning
- Procurement of additional funding for implementation

3. Evaluate the impact and iterate

It's important to measure the impact of the solution on your audience.

Traditional project management methodologies usually put in place a set of measures or benefits that should be assessed over time. You should also refer back to the success measures you put in place during the Understand phase.

You should be looking to measure the solution continually, to assess the suitability for the audience and where you might improve the service in an ongoing and iterative way. Use the measurement findings to feed back into continuous improvements.

Another aspect to consider are the different engagement levels of a service – ideally you should look to obtain feedback at all stages to gain a holistic view of how the service is performing:

- Interaction level: These are the individual interactions a customer may have throughout their journey to obtain an outcome using your service (e.g. a phone call to a call centre, completing an application form online).
- Journey level: This is the end-to-end process a customer goes through – from when they first realise they have an issue or problem to solve, to the point where they receive an outcome or obtain the desired benefits (i.e. the combination of all individual interactions).
- Relationship level: At a broader level, this looks at the relationship a customer has with the service provider, potentially across a number of services (e.g. an agency or business unit).

Try to find a balance between quantitative and qualitative measurements by combining feedback from actual people interacting with your solution that you gather by doing further research and testing sessions, and data about performance (e.g. operational data, online analytics).

Resources

Methods & tools	
Measure & evaluate	IDEO
Quantitative customer experience metrics aren't enough - a qualitative analysis identifies key engagement drivers and provides actionable insights	Gallup
Measuring services	CHAPTER 8 of Service Design by Ben Reason, Lavrans Løvlie, Andy Polaine
Performance Measurement Framework - Measuring Customer Experience	DPC
Customer Experience Measurement (CEM) Framework	Responsive Government

Key questions - unblocked

Question	Answer
How can I shift mindsets from a focus on purely quantitative measures of success?	Quantitative forms of measurement are ingrained in the way government works: they can be linked to budgets, KPIs, and many decision-making processes that are still in place. They are not something that you want to get rid of or downplay, especially when assessing the success of services at the scale of government. However, it is important to help people understand the limits of quantitative measurement and where it is best complemented with qualitative measurement. See the Unblocking section 'Why can't we just do a survey?' for more hints and tips on this.

Share

Key activities

1. Externalising and sharing your process and outcomes

Externalising and sharing your process and outcomes

Externalising and sharing your process and outcomes is an important part of achieving buy-in, and it also allows others to learn from the insights you've gathered, the approach you took, and the impact of the solution.

Key elements to share include:

- the design challenge you took on
- the audience
- who conducted the research
- research methods and process you used
- the activities you undertook
- key research insights and opportunities
- concepts generated
- artefacts produced e.g. journey maps
- the outcomes and benefits of the project.

A working wall at the Queensland Government.

Project workshop with stakeholders.

Different methods of sharing your project approach

Design walls	Design walls / working walls are a way to externalise your project and learnings as you go. It gives people an opportunity to interact with the project on an ad-hoc basis, or as a place for presentations, stand-ups and showcases.
Presentations & reports	Presentations and reports should include key elements discussed throughout this toolkit, such as the overall challenge, secondary research (e.g. environmental scans), and the project research itself – who you spoke to, participant numbers, key insights, design criteria etc. Make sure the presentation or report is appropriate to the audience and the purpose. Use diagrams, photographs and visuals where possible to ensure the message is easily digested.
Videos	Videos are a digital storytelling method that engage the viewer through a mix of audio, video and image. Videos can include: • Key insights • Photographs of materials used in research • Participant quotes • Video out takes of research participant sessions • Photographs of participants Videos should be no longer than 2-3 mins in length. Videos should be used internally only to protect participant confidentiality (unless appropriate consent has been obtained).
Project case study	This template is designed to be used to capture the outcome and benefits of projects where a human-centred design approach has been implemented for either all or part of the project. The project case study will be used to help communicate the benefits of a human-centred design approach to change and innovation.

Share phase – skills required

The following are key skills for the Share phase.

- Communicate project outcomes
- Present and respond (story telling)
- Basic visual communication

Refer to the Meld Studios Skills Matrix 1.0 for descriptions of the skills and competency scales.

Where to get help

Contact

For enquiries about this toolkit contact

hcd@hpw.qld.gov.au

This toolkit was created in partnership with Meld Studios

Contact principals@meldstudios.com

Any materials accredited to Meld Studios must not be reproduced without permission.

Meld Studios