The Design Process

Importance for executives and guiding your team through the journey

The Design Process: Job Aid for Executives

This job aid explores the five phases of the design process. Each phase is described and its importance for executives is explained. It also guides you through the design journey and provides bonus learning resources.

Canada School of Public Service
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Product management

Guiding your team through the design journey

Product management is the process of managing products throughout their life cycle, from discovery to delivery.

This job aid is intended to assist you, as an executive, in supporting your team through these life-cycle stages by enhancing your strategic understanding of the concepts and tools used in the design process.

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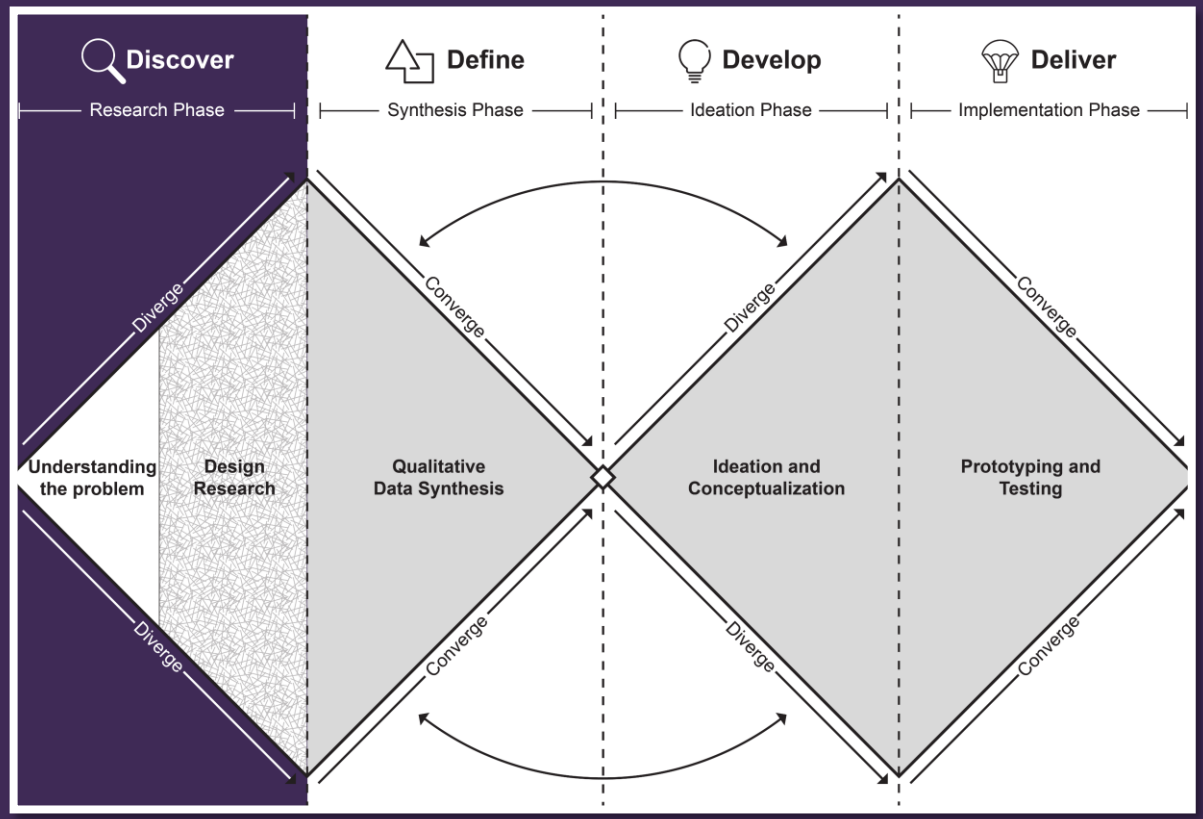
The Double Diamond

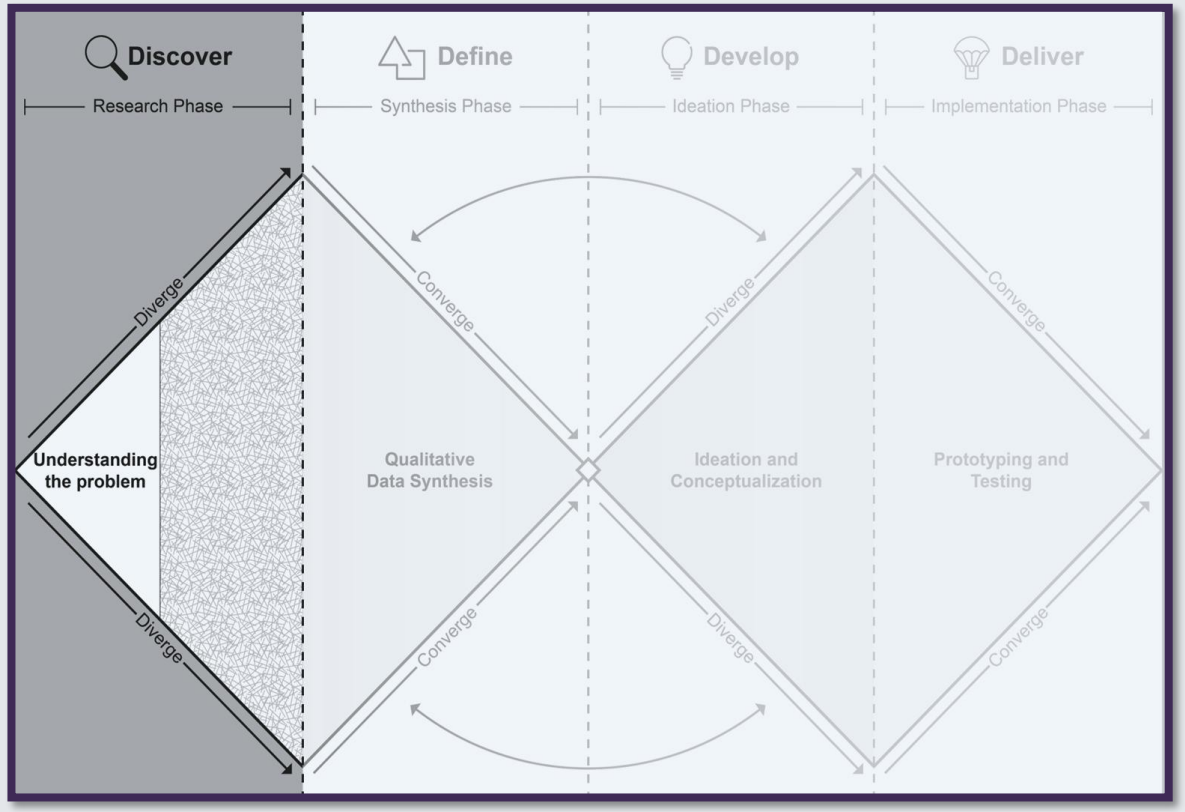
The Double Diamond is a visual representation of the way we approach the design process. It shows the steps that can be used to guide you through the steps of delivering and managing solutions to problems. The process is not linear, and the diamond shape signifies that the process is diverging and converging, indicated by the arrows at right.

For each step of the design process, the pages that follow will provide executive-focused information and resources for each of the stages in the design process.



1. Problem Framing

Understanding the problem is the first step in the design process. It is crucial to determining which is the right problem to solve.



What is problem framing?

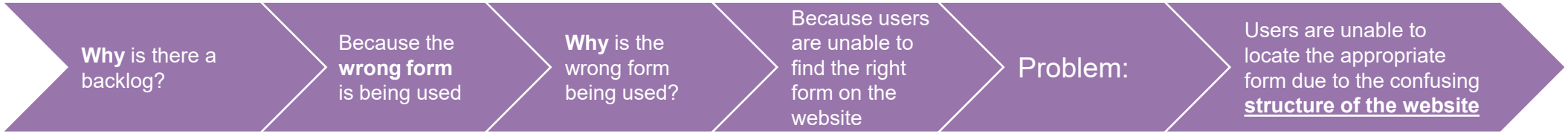
Problem framing is a method for understanding and defining a problem. Taking things one step at a time keeps you from jumping to solutions too quickly. Here's how to describe it:

What it means

Here's an example[1] of a situation in which the problem-framing steps were not applied: The Department of Fisheries and Oceans is experiencing a backlog of applications for projects near water.

It may appear linear and straightforward at first sight, but is this the right problem to solve?

Here is the same example[1] with the application of problem framing:



By asking questions and understanding context and users, we are able to identify problems based on the points of view of different stakeholders.

1. The example used to illustrate the application of the steps of problem framing is **fictional.**

Supporting your team through problem framing

Here are some simple and effective ways to support your team through the process of problem framing.

A Facilitate a problem-framing session with your team. Use this framework to deliver an effective 30-minute session.

B Have a **dedicated** visual **collaboration space** (physical and/or virtual) where you and your team can share ideas, feedback and ask questions. Use it frequently and encourage your team to do the same. Remember to add it to your favourites for ease of access and as a reminder to use it frequently.

C Use your **network**. Consider connecting your team members to professionals in your network who can **provide insights and perspectives** about different aspects of the problem (the stakeholders, the context, the problem).

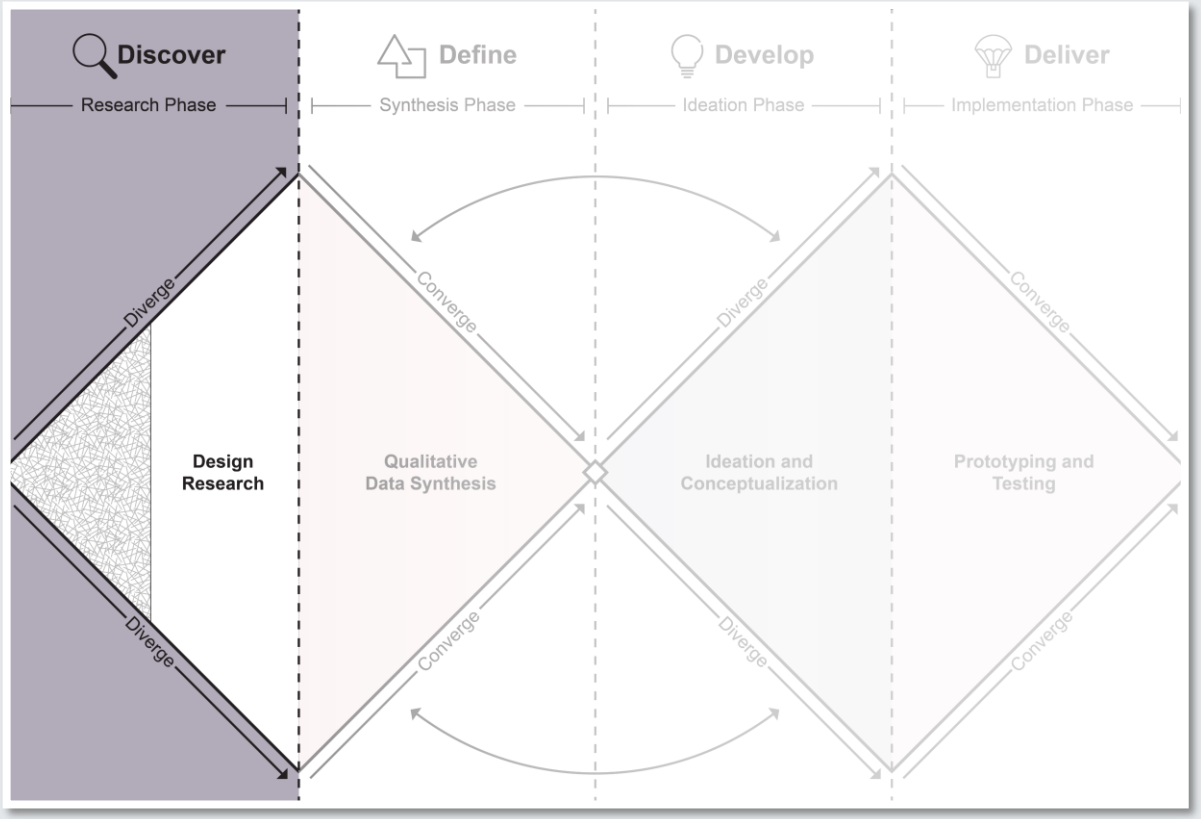
Bonus learning resources on product management and problem framing

- The article Design Thinking for Impactful Solutions can help you understand the strategic concepts that will be explored throughout the design process.
- The course Introduction to Product Management in the Public Service (DDN236) presents the fundamentals of product management.
- The course The Design Process: Understanding the Problem (DDN237) provides examples, activities and tools relative to problem framing.
- If facilitating a session is not yet your thing, try Facilitation Essentials: Fundamentals of Facilitation (TRN123) to get the skills you need.
- The course Building a Culture of Design Thinking (DDN225) is a great way to get into the mindset of promoting a design culture.

2. Design Research

Design research follows problem framing in the double diamond model. Having framed the problem that needs to be solved, it's now time to perform evidence-based research to support the development and improvement of products, services and programs.

Design research uses structured research to find out how your stakeholders behave, their motivations, what they need and their pain points.



Importance of design research for executives

- **Optimizing Funding and Resource Allocation**
  Understanding user needs early reduces the number of costly design changes, revisions, or rework later in the process. While design research may initially feel time-consuming, it delivers high value by predicting and addressing potential long-term issues before they become expensive problems.

- **Delivering Value Where It Matters**
  Even well-intentioned features fail if they don’t meet user needs or are inaccessible. Design research uncovers what users truly want, ensures accessibility for all citizens, and increases adoption. Satisfied and empowered users become your strongest advocates.

- **Leveraging Research Data Across Initiatives**
  Insights gathered through design research are a strategic asset. They can inform decisions, guide other projects, and drive evidence-based improvements across the organization.

Supporting your team through design research

Here are some simple and effective ways you can guide and empower your team in conducting ethical, evidence-based research.

Cultivate an environment where your team feels safe to explore new ideas by…

A …asking questions that lead to a shift in mindset or bring about a novel perspective. Use this model of **31 powerful questions** as a starter.

B … adding challenges, failures and hardships as regular themes of your team check-in sessions, starting with one of your own experiences.

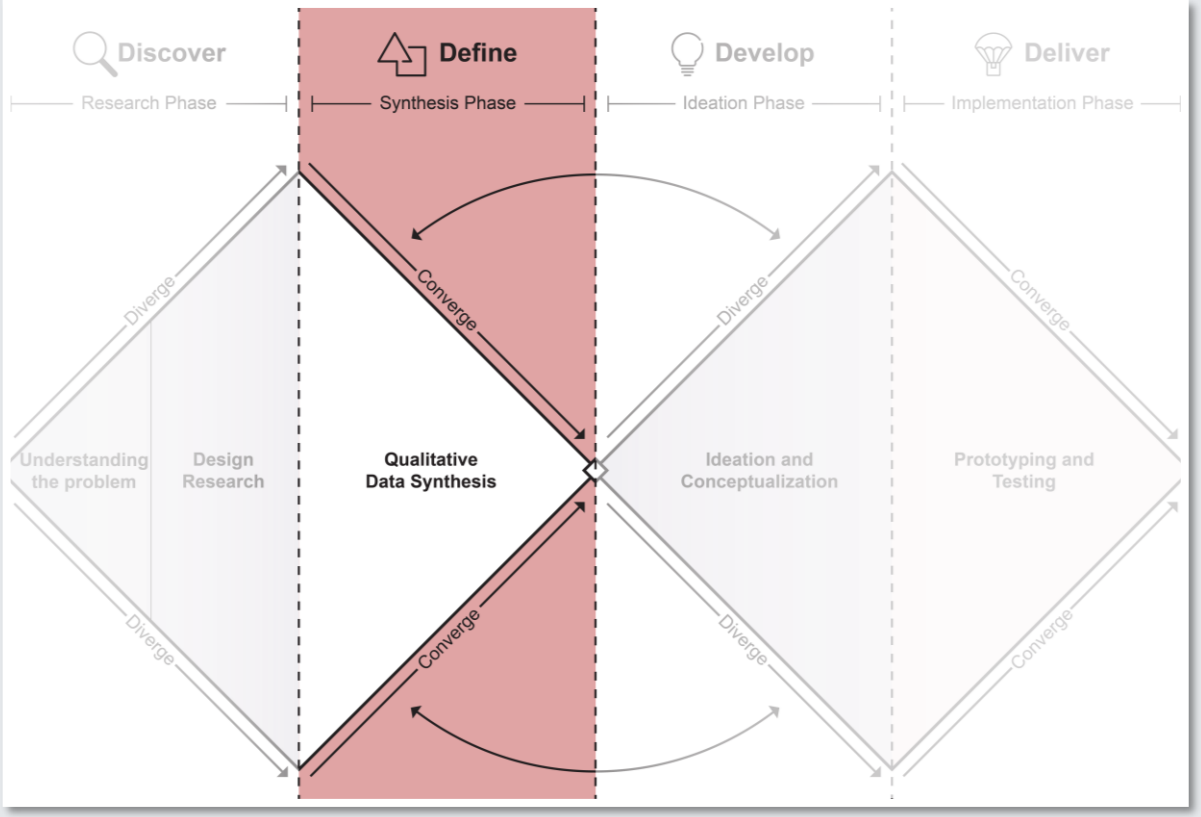
C … sharing the resources you have access to with your team to demonstrate your support and validate the value of the research.

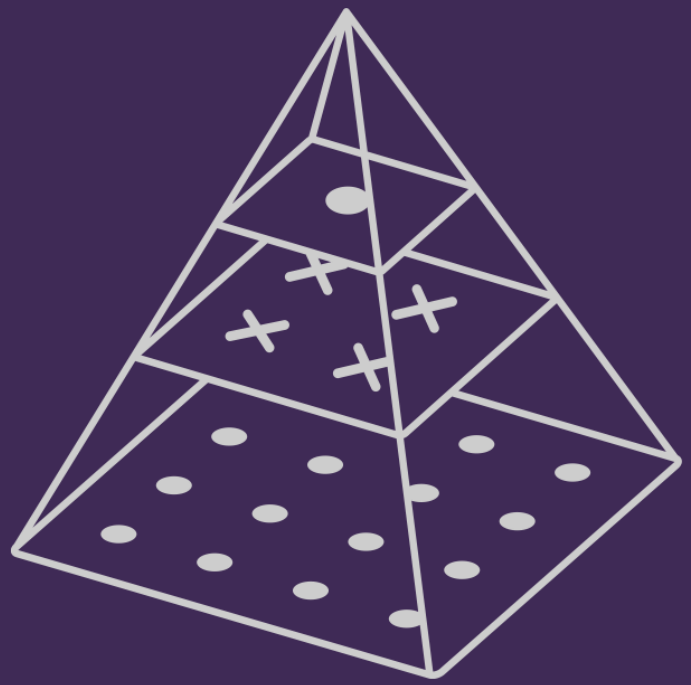
Bonus learning resources on design research

- The article Creating a Failure-Safe Workplace for Employees suggests different ways of fostering a creative-safe workplace.
- The course The Design Process: Design Research (DDN244) explores the benefits and methodologies of effective design research.
- The Canada.ca blog Improving content on Canada.ca is a valuable tool that showcases real projects in which user research led to significant service delivery improvements.

3. Data Synthesis

At this stage, your team has gathered research insights and gained clarity on the problem to be solved. Data synthesis is about taking all available information—qualitative or quantitative—and organizing, analyzing, interpreting, and combining it to generate actionable knowledge that informs decision-making.





Importance of data synthesis for executives

- **Identifying and Accessing the Right Data**
  Start by confirming what data is available: audit or evaluation reports, system extracts, or new research collected. Ensuring your data is accurate, complete, and reliable is critical for meaningful analysis and decisions.

- **Expanding Horizons**
  Synthesizing data uncovers patterns, trends, and insights about user behaviors that can inform current initiatives and inspire new opportunities across the organization.

- **Keeping Up with Tools and Trends**
  Use this stage to experiment with different analytical approaches, including AI and visualization tools, to enhance your understanding and generate deeper insights.

- **Team Alignment and Shared Understanding**
  Structured data synthesis creates a common view of findings, helping teams align around research questions, evidence, and decisions, which strengthens collaboration and focus.

Supporting your team through data synthesis

Here are some simple and effective ways to guide and empower your team in organizing and interpreting the data collected.

A Support your team by suggesting high-level strategic data labels and themes that will help them perform better and produce high-quality insights.

B Following guidelines and best practices, encourage your team to experiment with AI to combine anonymized data and check previous assumptions.

C Lead a session with your team to share the results of the analysis and connect it back to your problem statements to ensure alignment.

D Consider investing in technology and tools, for yourself and your team, to facilitate data synthesis on the subject and further learning opportunities.

Bonus learning resources on data synthesis

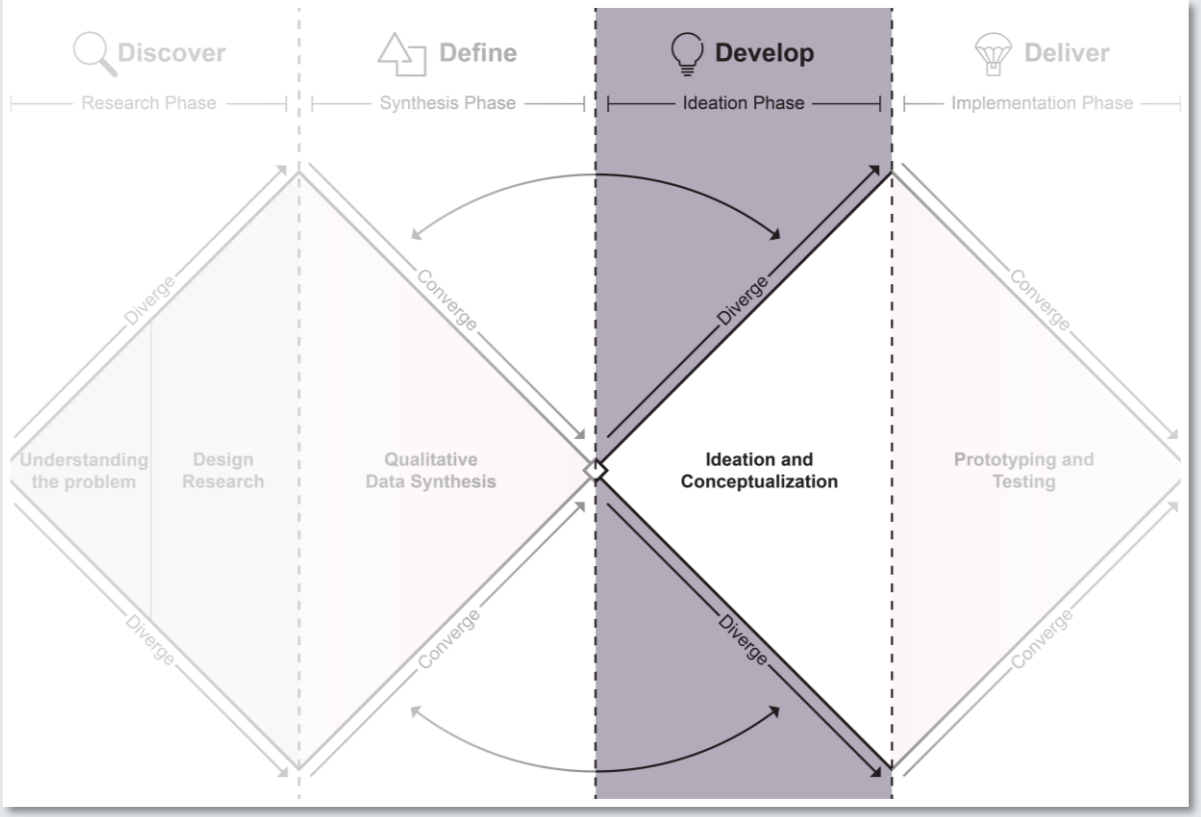
- The course GC Data Demystified (DDN304) introduces the importance of data, data-related terminology and the various roles in government which commonly work with data.
- The course The Design Process: Qualitative Data Synthesis (DDN245) presents practical methods for organizing, analyzing and synthesizing qualitative data.
- The course Disaggregated Data For better Policy Outcomes (DDN323) explains data disaggregation, how it can inform the early stages of policy development, and how it can lead to better public policy outcomes.
- The course Data Analytics for Managers (DDN325) highlights best practices for integrating data-driven analytics into daily decision-making.
- The article Coding Qualitative Data: How to Code Qualitative Research is a deep dive into the core concepts of effective qualitative data research methods.

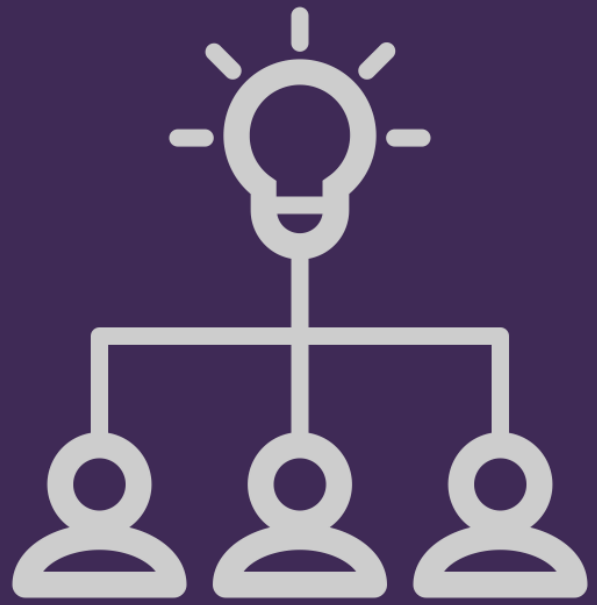
4. Ideation and Conceptualization

We're at the fourth phase of the design process and it's time to get creative!

Ideation is the process of generating ideas to solve a problem. During this phase, your team will create and evaluate different options to solve a problem.

But there's more! Your team will also go through conceptualization, the process of turning ideas into actionable plans to prepare them for prototyping.





Importance of ideation and conceptualization for executives

- **Efficiency gains**

Ideation reduces the likelihood of multiple implementation attempts, ultimately saving valuable resources down the road.

- **Real value, where it matters**

Using research data during ideation and conceptualization allows for the discovery of solutions that align better with real user needs.

- **Collective knowledge**

The artifacts created during this phase can serve as a collective knowledge base of ideas for use in future initiatives.

Supporting your team through ideation and conceptualization

Here are some simple and effective ways you can foster the ideal environment for your team, generate great ideas and turn them into plans.

A

During the ideation phase, there are no bad ideas. Encourage your team to bring any and all ideas to the table. Provide your team with the space to share ideas freely, even anonymously, if it encourages participation.

B

Explore different ideation techniques to find what best fits your team structure. Take the course The Design Process: Ideation and Conceptualization with your team.

This short article is another great starting point for concepts and practical tools.

C

Diversity can promote creativity. Consider bringing in team members from different departments and backgrounds to join in on a brainstorming session.

Bonus learning resources on ideation and conceptualization

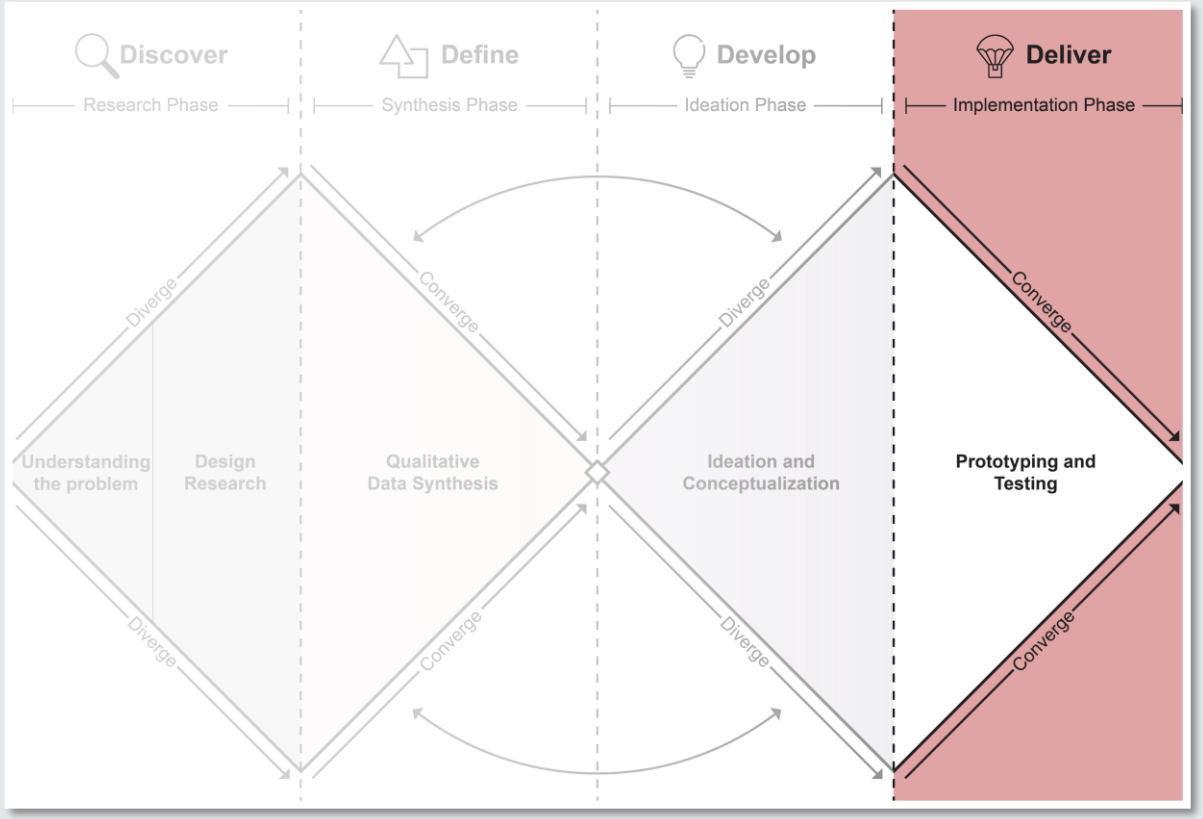
- This article on how to prepare for ideation sessions is a comprehensive read on the topic of ideation.
- The course Design Thinking for Innovation: Brainstorming and Ideation (TRN239) will spur your creative thinking, improve collaboration and provide even more ideation techniques.

5. Prototyping and Testing

This is the fifth and final phase of the design process. It's time to put pen to paper!

Prototyping is the process of creating a scaled-down version of your solution. During this phase, your team will develop visual representations of the different levels of complexity of your chosen solution.

Your prototypes will also go through testing. This will enable you to learn lessons, test hypotheses and iterate directly with users.



Importance of prototyping and testing for executives

- **Mitigating risk**

Prototyping allows you to test and improve your solution before investing substantial resources in the actual product.

- **Get the buy-in**

Prototypes tell a much more compelling story than simply describing the potential of your solution. Use them to get the senior management support you need to implement your solution.

- **Directed feedback and user connection**

Learning and iterating based on direct user feedback is a clear way to meet user needs while demonstrating a commitment to their expectations

The Role of Product Management in the Design Process

Government organizations increasingly use the *double diamond model* to explore citizen needs and co-design solutions. While this approach generates valuable insights and innovative ideas, the impact can be limited without a strong product management function. Product management ensures that design outputs are strategically aligned, feasible, and capable of achieving measurable outcomes for both citizens and government.

Why It Matters for Executives

Integrating product management throughout the design process allows executives to be confident that new services are not only user-centred, but also accountable, efficient, and aligned with government priorities. This creates a stronger return on public investment while improving outcomes for citizens.

Key Contributions of Product Management

Strategic Alignment
Product management links design ideas to policy priorities, mandate commitments, and departmental objectives—ensuring that solutions contribute directly to government outcomes.

Prioritization & Focus
With limited resources, not all problems can be addressed at once. Product managers guide teams in selecting the initiatives that balance citizen needs with operational and fiscal realities.

Evidence-Based Decision-Making
By combining user research from design with data and policy analysis, product management builds strong cases for investment and implementation.

Feasibility & Delivery
Product managers test early concepts against technical, financial, and operational constraints, ensuring solutions are practical, sustainable, and scalable.

Risk Management
They anticipate and mitigate delivery, reputational, and policy risks before initiatives move to implementation.

Measurement & Accountability
Product management establishes success metrics, enabling executives to track whether services achieve intended policy objectives and create real public value.

Cross-Functional Coordination
Acting as a bridge across design, IT, operations, and policy, product management ensures solutions move smoothly from discovery through delivery.

Supporting your team through prototyping and testing

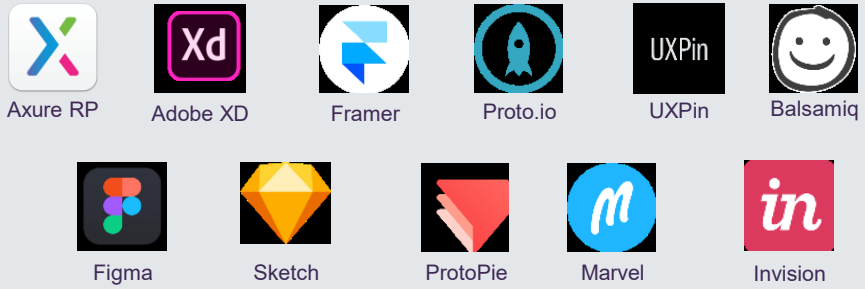
Here are some simple and effective ways to inspire your team to create effective prototypes for your solution.

A

Create vision and set goals: Align the team with a common purpose and provide them with the time and resources required to focus on developing the prototype.

B

Explore different prototyping tools with your team. Here are just a few!



C

Facilitate a role-playing session with your team where you take turns playing the role of the user while interacting with the prototype. It can be an enlightening exercise in empathy and user-centricity!

Bonus learning resources on prototyping and testing

- Want more information on a prototyping tool? Here is a quick read on the 13 Best Prototyping Tools to Explore and Test Ideas in 2024.
- Keep exploring the topic with the course The Design Process: Prototyping and Testing (DDN249). It will help you and your team to select the most suitable prototyping and testing methods for your solution.

Design Thinking Process courses at the Canada School of Public Service

- Digital Accelerator Program
- Introduction to Human-Centred Design (DDN207)
- The Design Process: Understanding the Problem (DDN237)
- The Design Process: Design Research (DDN244)
- The Design Process: Qualitative Data Synthesis (DDN245)
- The Design Process: Ideation and Conceptualization (DDN246)
- The Design Process: Prototyping and Testing (DDN249)
- Exploring the Relationship Between UI/UX Design (DDN227)
- Design Thinking for Innovation: Stakeholder Engagement (TRN237)
- Design Thinking for Innovation: Defining Opportunities (TRN238)

Design Thinking Process job aids

- Research Planning Checklist (DDN2-J10)
- Identifying Common Product and Service Design Problems (DDN2-J02)
- Empathy Mapping (DDN2-J03)
- Journey Mapping: Visualizing the User Journey (DDN2-J04)
- Mission Model Canvas (DDN2-J05)
- How to Compose a Problem Statement (DDN2-J06)
- Stakeholder Mapping During the Solution Design Process (DDN2-J07)
- Best Practices for Protecting Participant Data (DDN2-J08)
- Choosing the Right User Research Method (DDN2-J11)
- User Persona Checklist (DDN2-J12)
- Brainstorming and Brainwriting (DDN2-J13)
- Making an Elevator Pitch (DDN2-J14)
- How to Compose a “How Might We” Question (DDN2-J15)
- Conducting an "I Like, I Wish, What If" Feedback Activity (DDN2-J16)
- Innovation Scorecard (DDN2-J17)
- Affinity Diagram (DDN3-J02)