



# Introduction to PM and Design Thinking



# Agenda

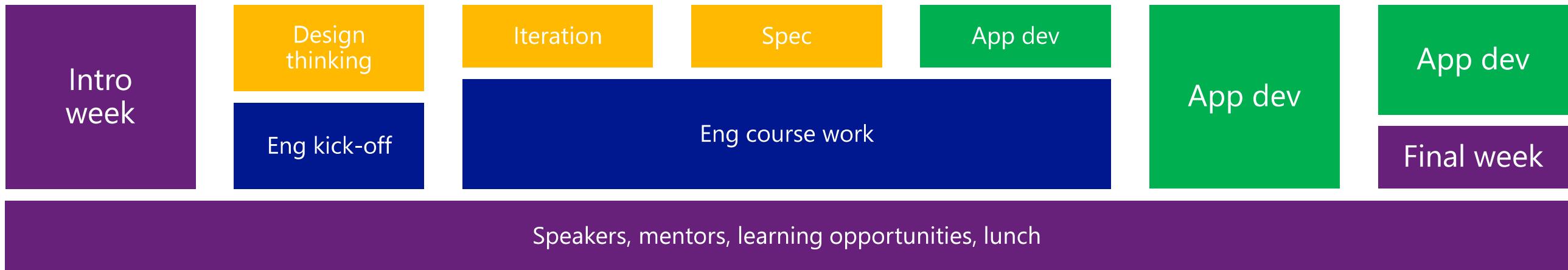
- Welcome
- Course overview
- Coach intro
- Design sprint overview
- MVP
- Agile engineering

# Welcome!

If you could meet any historical figure  
and have lunch, who would it be?

Share – your name and historical figure

# Program sequence



# Coach intros

# What is a PM?

- Responsible for defining the **why**, **when**, and **what**
- At the intersection of user experience, business, and technology

Program Managers (at Microsoft) determine what the most valuable thing we can do for our customers is and why we should do it.

# Names and responsibilities

- Program manager – what it's called at Microsoft
- Product manager – common name
- Project manager – (bit different) in charge of planning and execution of a particular project

## Framing

Vision  
Product Definition  
Planning  
Prioritization  
Customer identification  
Value proposition

## Defining

Communication and Storytelling  
Requirements specification  
Risk management  
Team building  
Customer and Partner engagement  
Passion and Clarity

## Delivering

Accountability  
Technical acumen  
Creative problem solving  
Agility  
Consistency  
Responsive design

# Design thinking

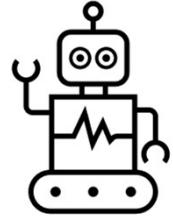
# What is design thinking?

The process for solving problems and creating solutions. It's rooted in understanding the needs of the customer.

It's not about the technology, it's about people. It's user-centric or human centric.

# Tech-centric vs Human-centered

## Tech



We need an app that's a digital front door to our health services allowing users to book appointments, view their charts, navigate buildings with maps and pay their bills.

## Human

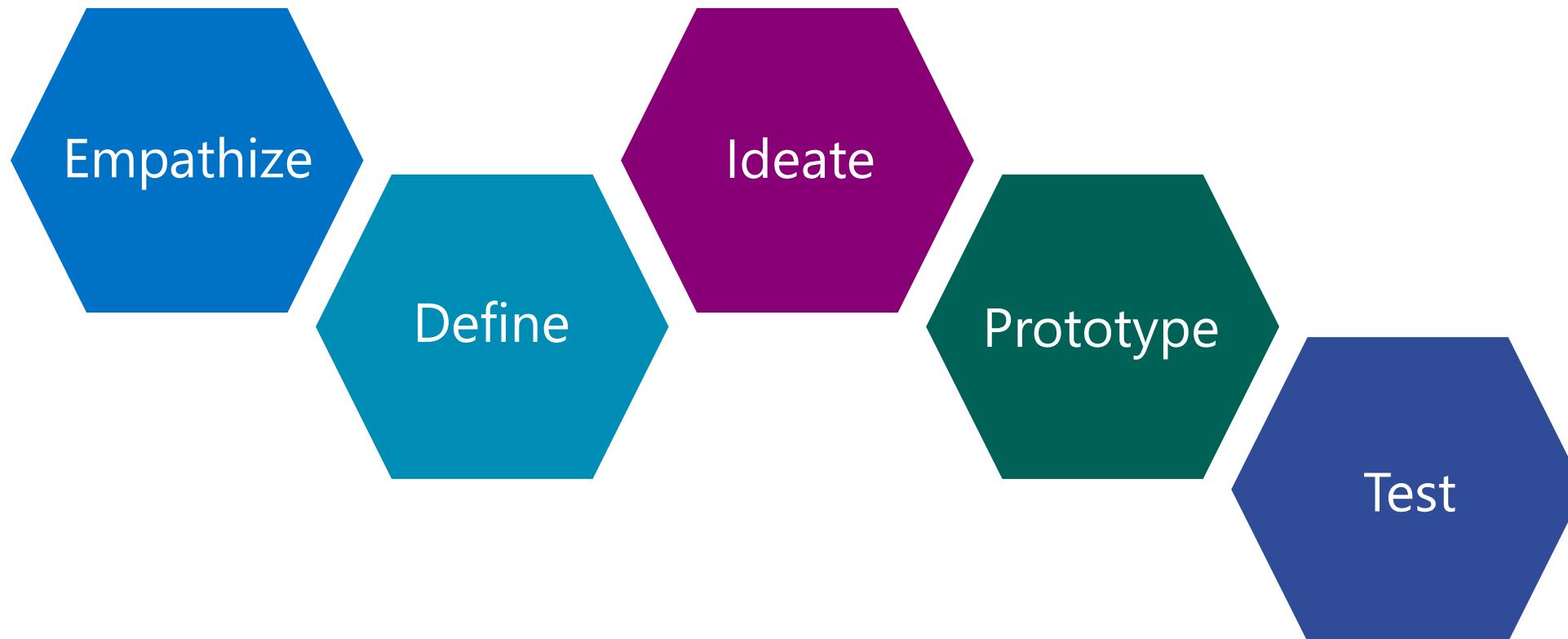


Patients need to be able to manage their healthcare from their phone and easily access critical services in order to improve health outcomes.

# Three principles

1. Empathy – understanding the needs of the user, representing the user not yourself
2. Ideation – pushing to explore the many possibilities, reaching for creativity and innovation
3. Experimentation – iteratively prototype, build, and ship, continuously learning and applying feedback

# Phases of design thinking

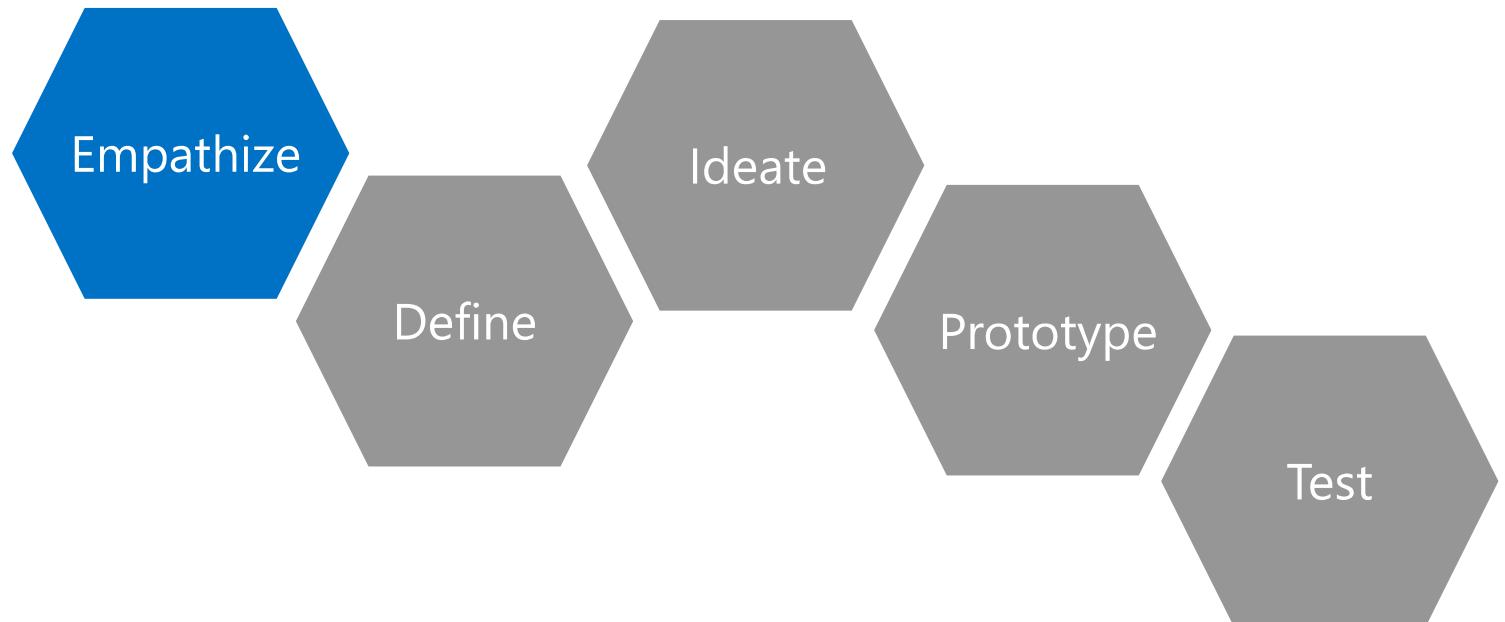


[Stanford's Design Thinking Model](#)

# Empathize

Develop a deep, empathetic, understanding of user needs.

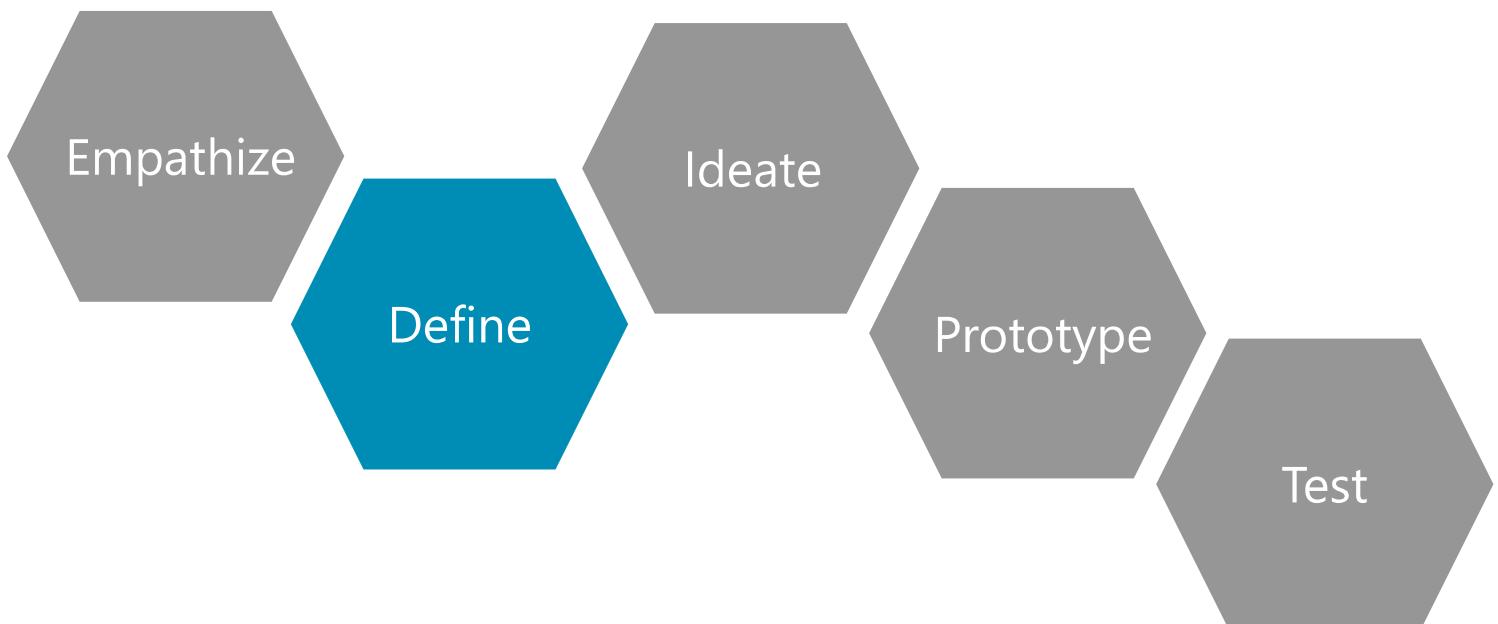
Observe what users do today. Engage in interviews and conversation to understand needs and objectives. Immerse in the experience of the user.



# Define

Use information in the empathize phase to identify pain points and patterns, clearly defining the pattern.

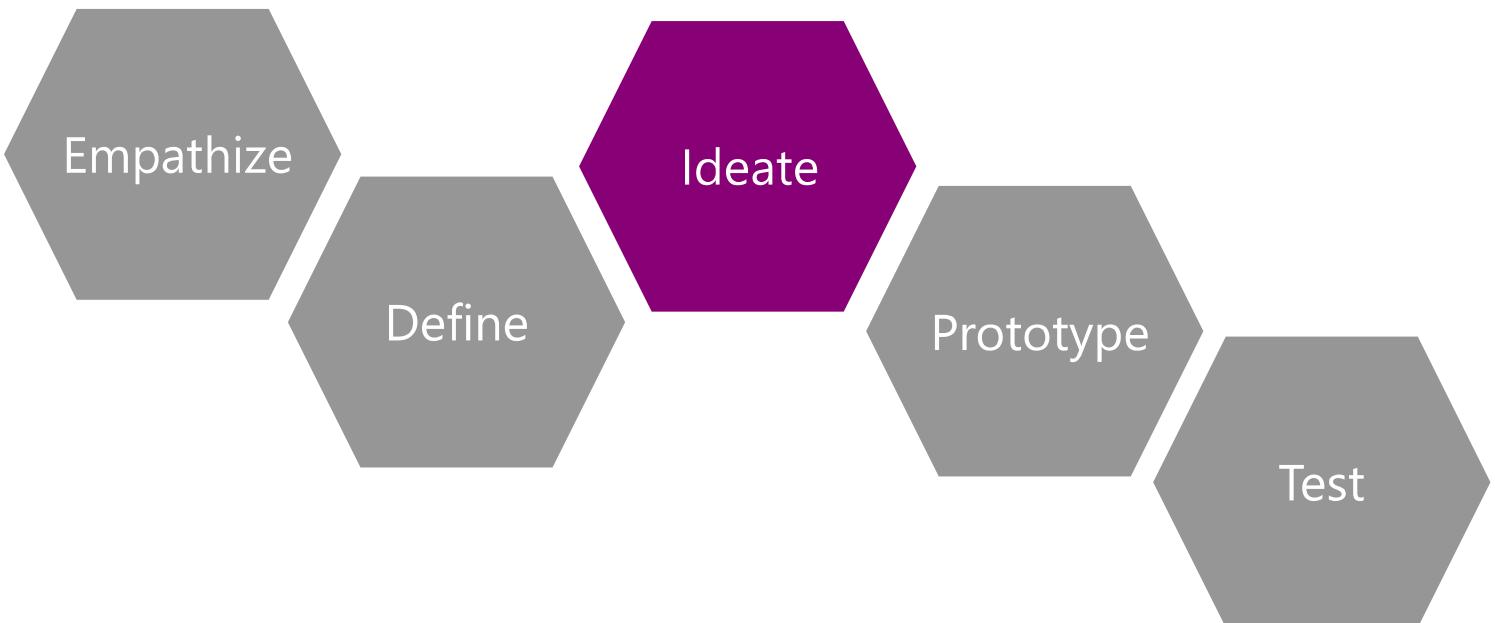
Create human centric statements agnostic of solution or technology to define the right challenge.



# Ideate

Generate ideas for the solution.

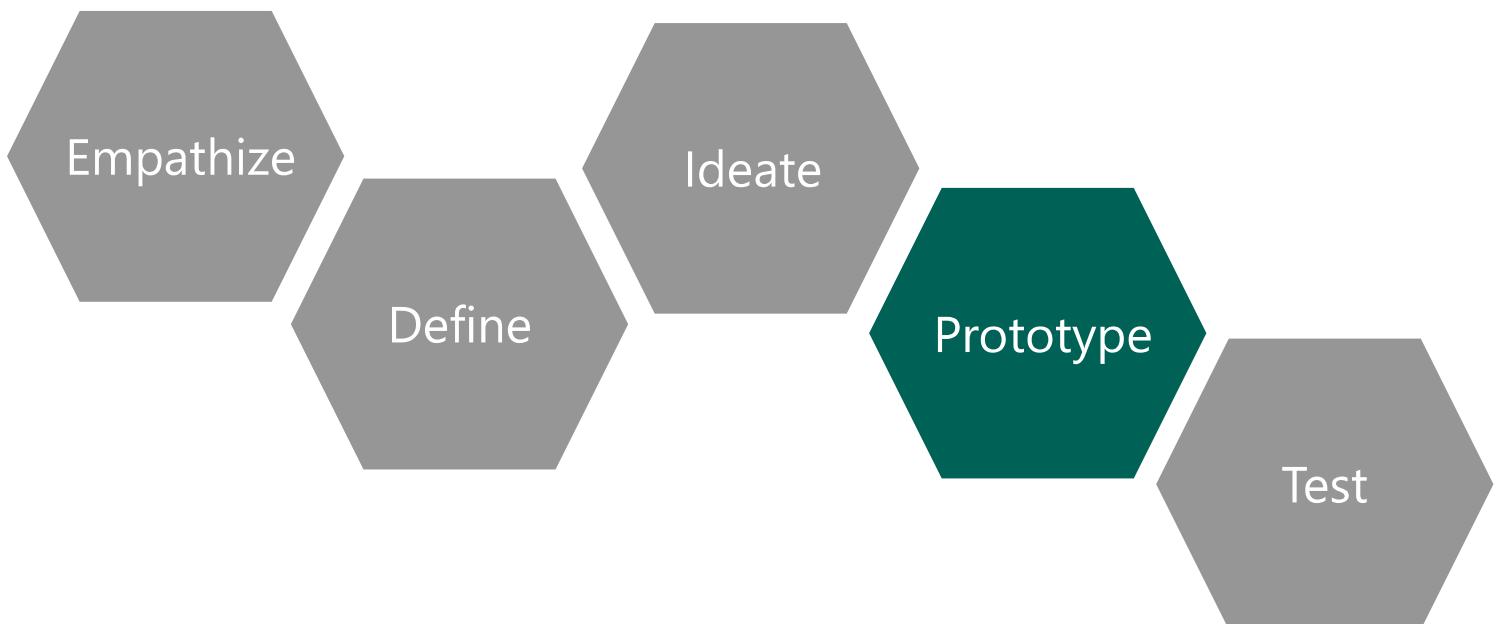
Go beyond obvious solutions, conduct exercises to expand thinking, and bring in diverse perspectives to go wide.



# Prototype

Experiment to narrow down the ideas by creating a sample or model to be tested.

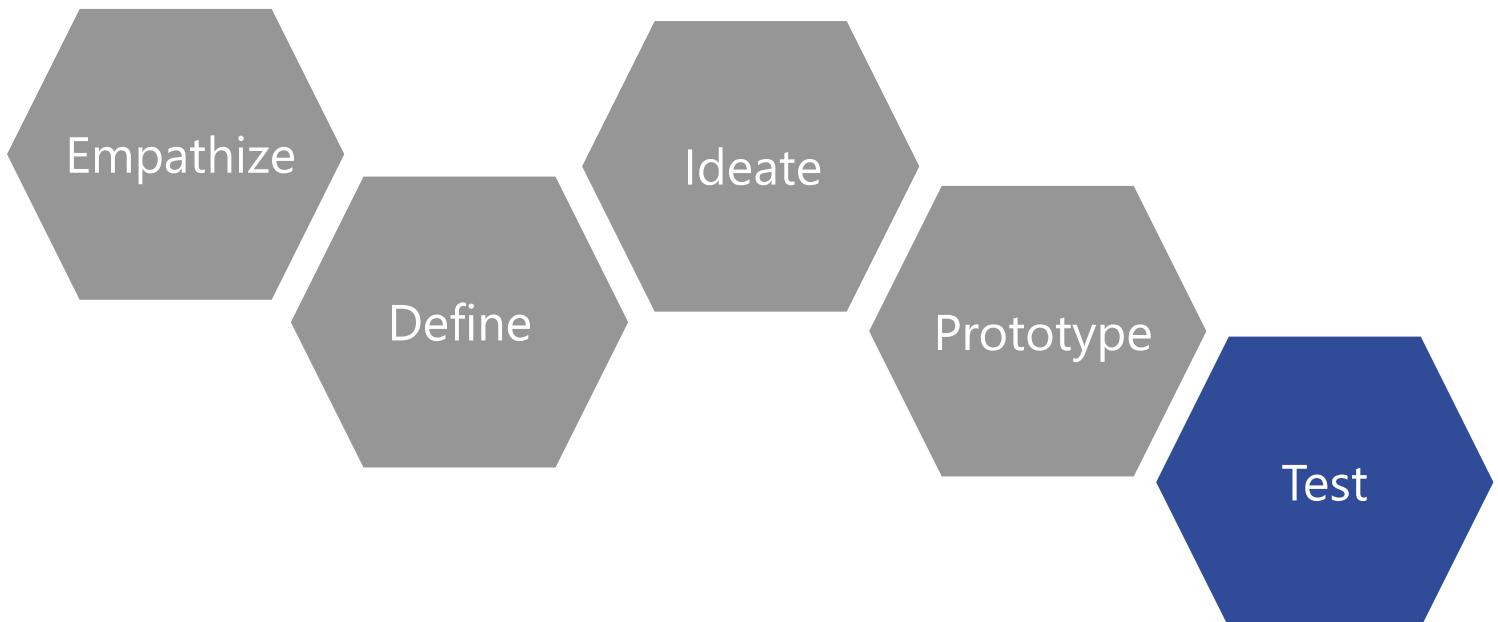
Build prototypes by drawing, using digital tools, or coding to help ideate, problem solve, start a conversation, fail quickly and test cheaply.



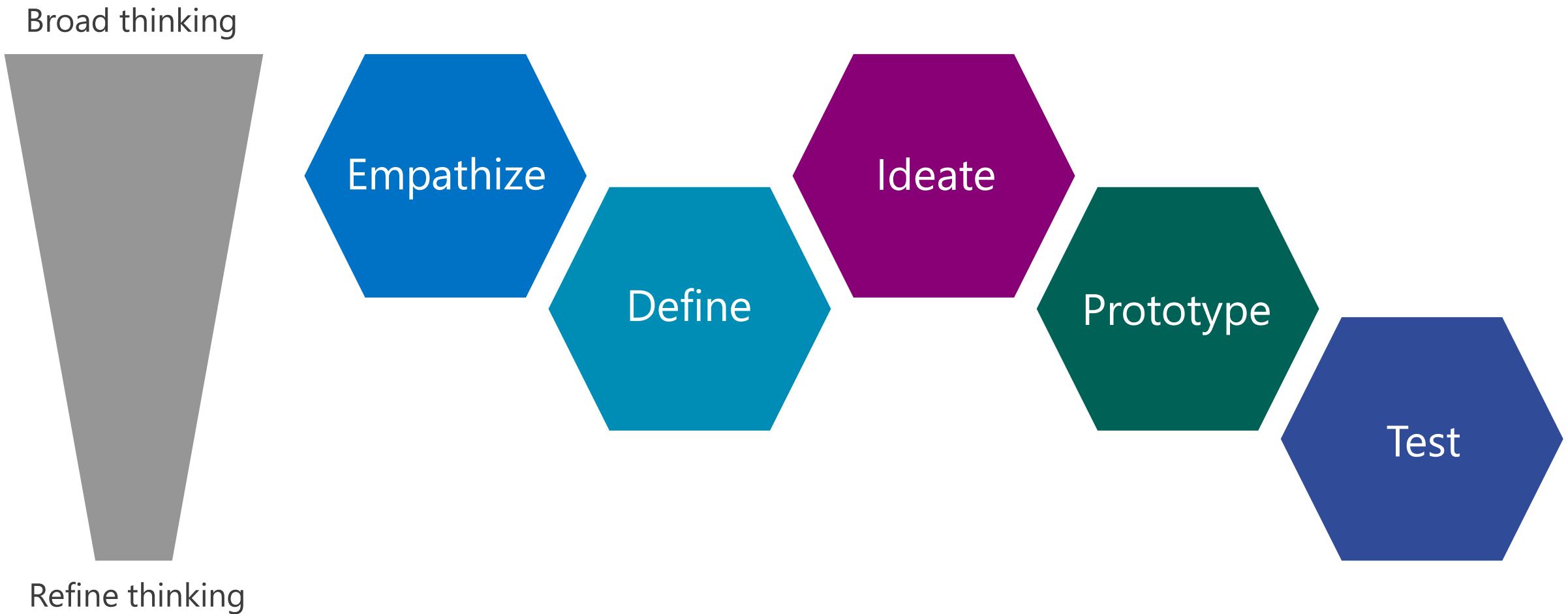
# Test

Get feedback on the experience from users to evaluate how well it meets the needs.

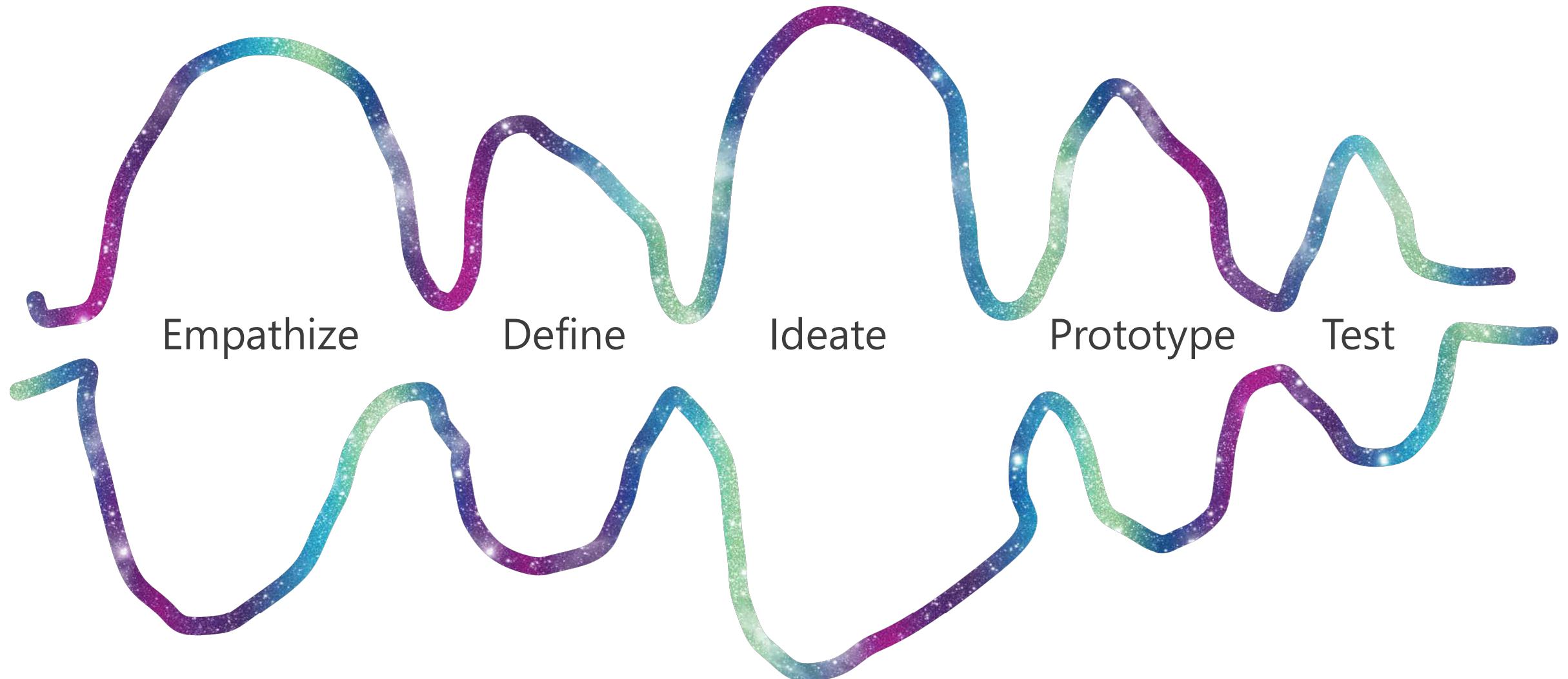
Conduct usability studies and have conversations with users to test your hypothesis, refine prototypes and learn more about users.



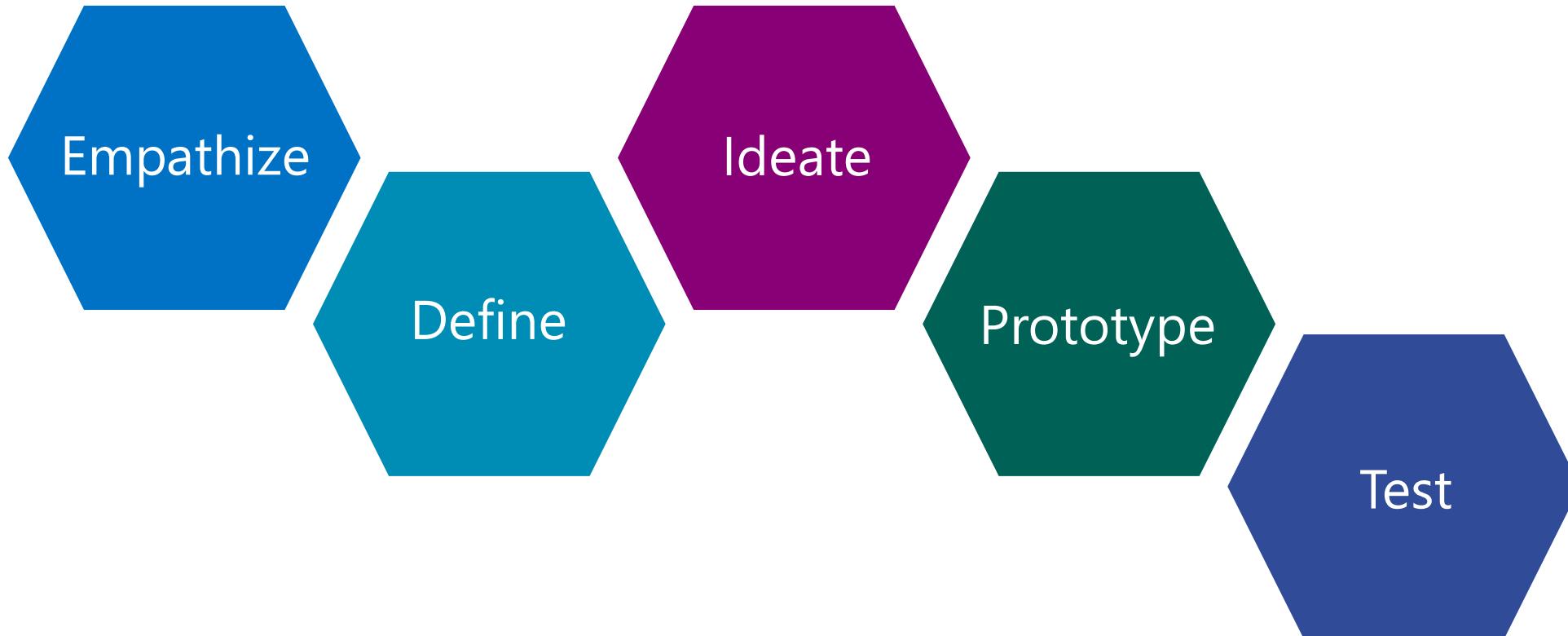
# Expand and refine



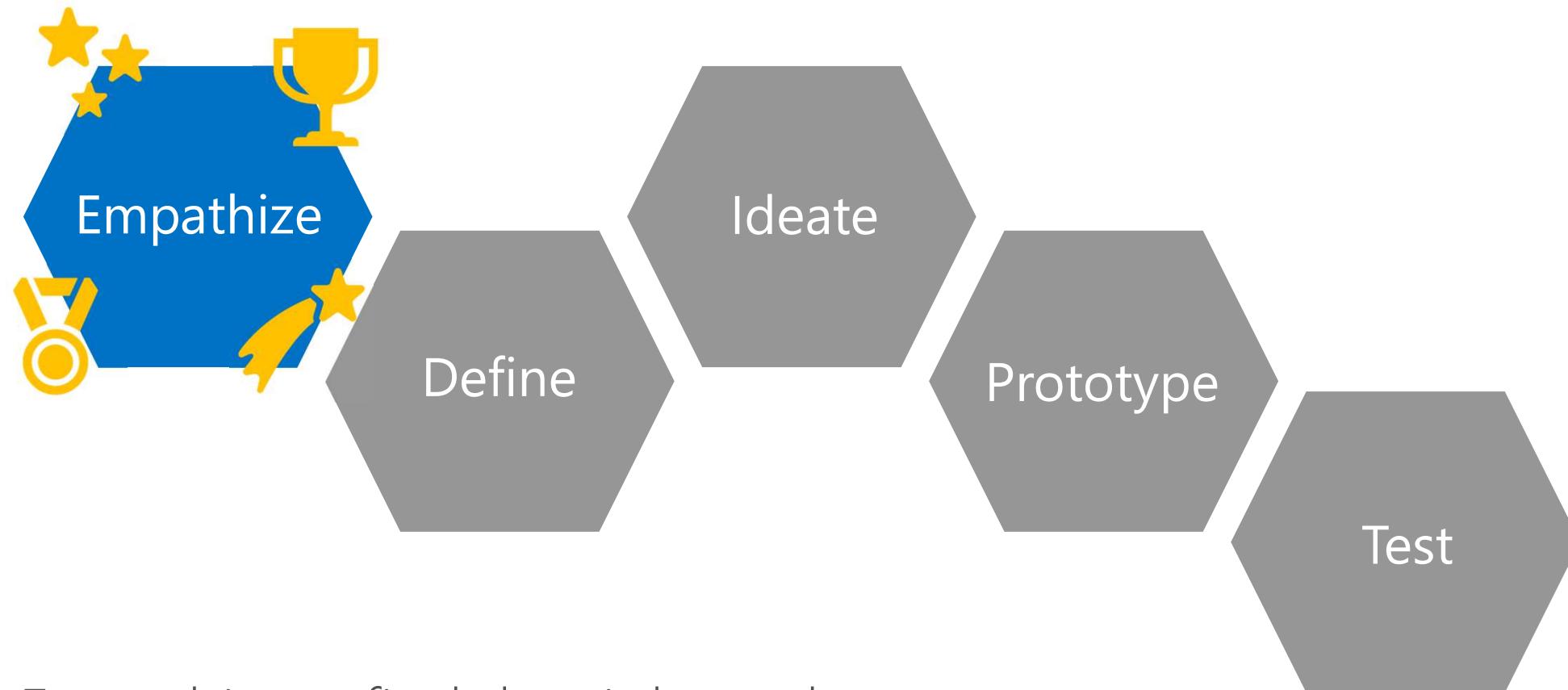
# Expand and refine



# Which stage is most important?



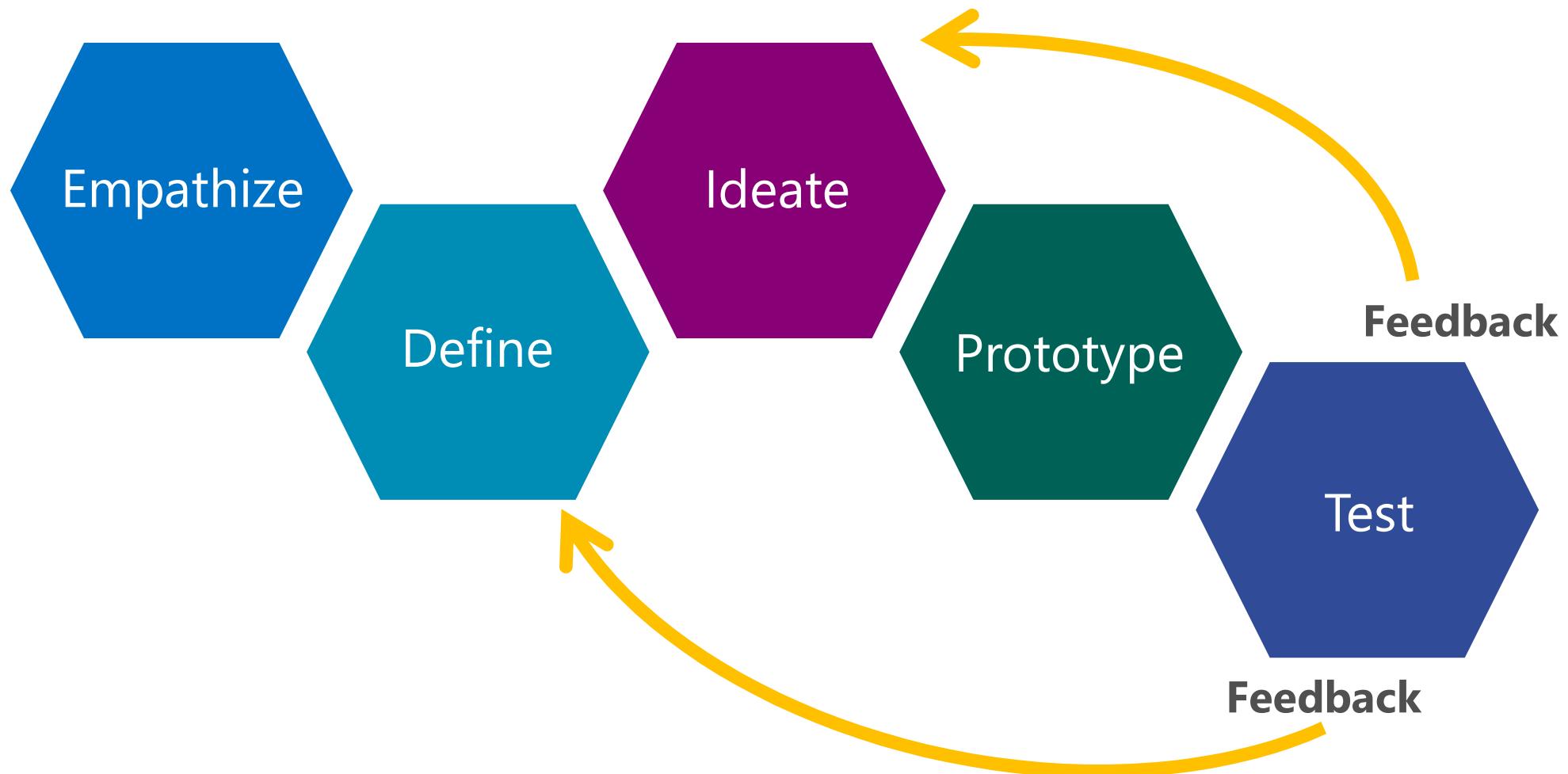
# Which stage is most important?



1<sup>st</sup> place: Empathize – find the right path to start on

2<sup>nd</sup> place: All of them together as a process

# It's an iterative process



# MVP

# Minimal Viable Product

MVP is the first stage of releasing a product. It gets the tool in the hands of the users quickly. It must have:

1. Value to attract early adopters
2. Value to retain users
3. Feedback loop to guide future development

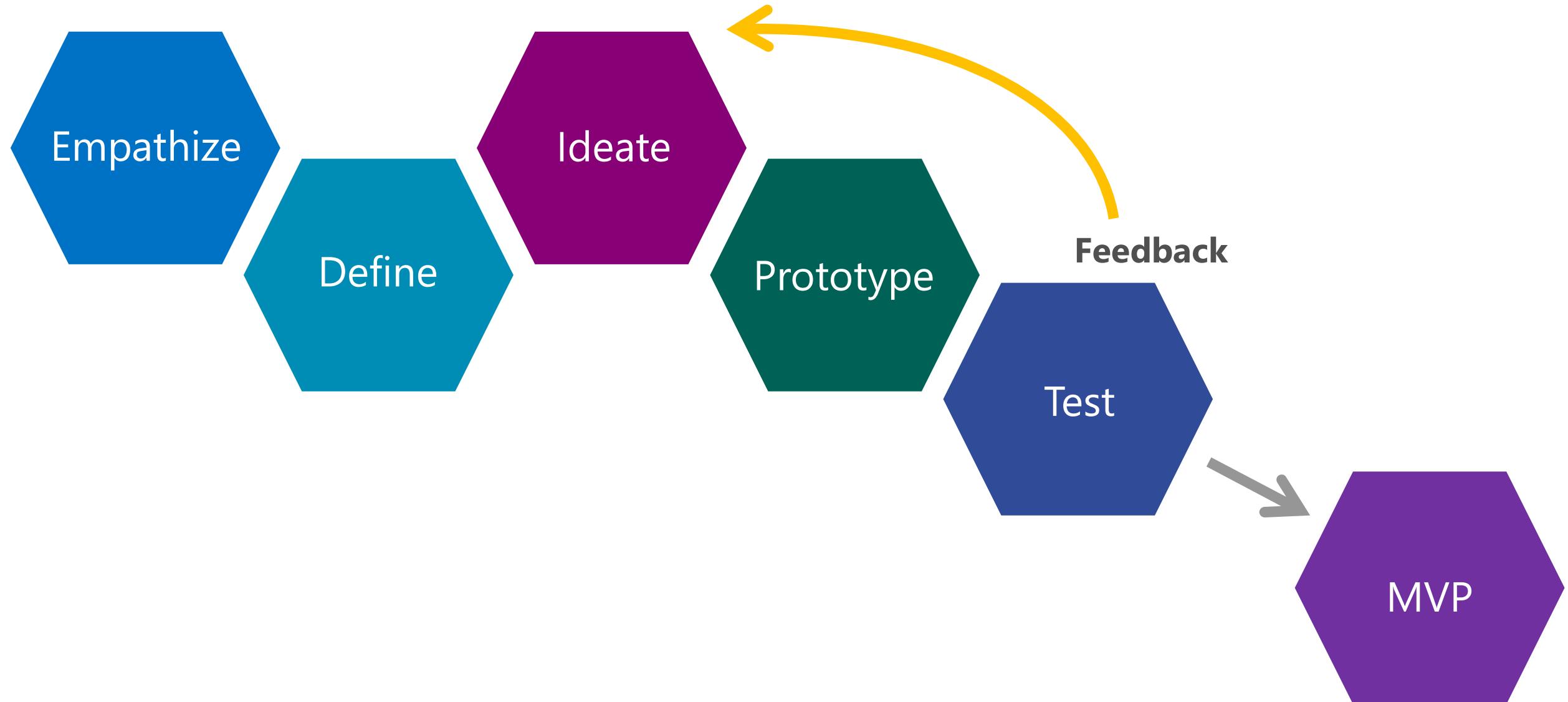
An MVP prototype is what your team is building together.

# How to determine the MVP?

The design thinking phases help find the MVP. Three key considerations:

1. Desirability: What does the user need?
2. Viability: What is the business case and market opportunity?
3. Feasibility: What is technically and financially feasible?

# MVP



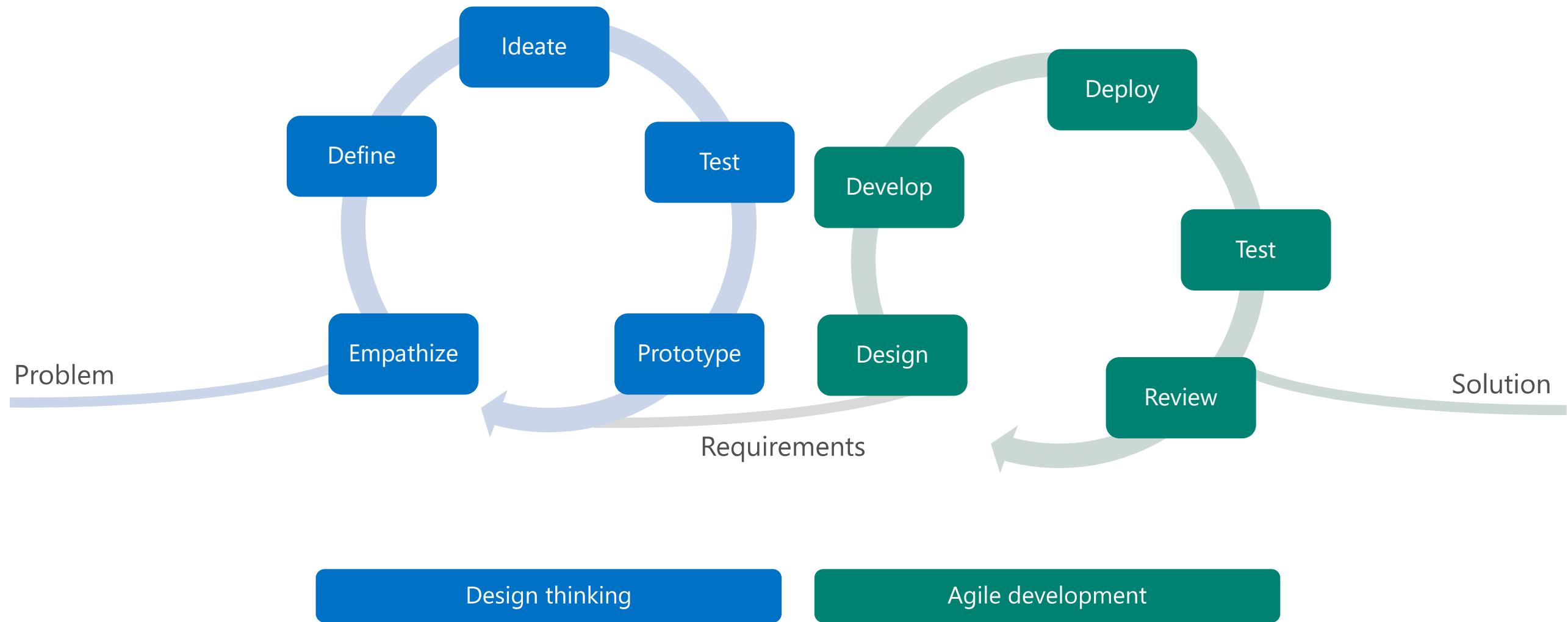
# Design phases fit in with product lifecycle

The product lifecycle is how things are built and delivered to customers. The design thinking process combines with the product lifecycle.

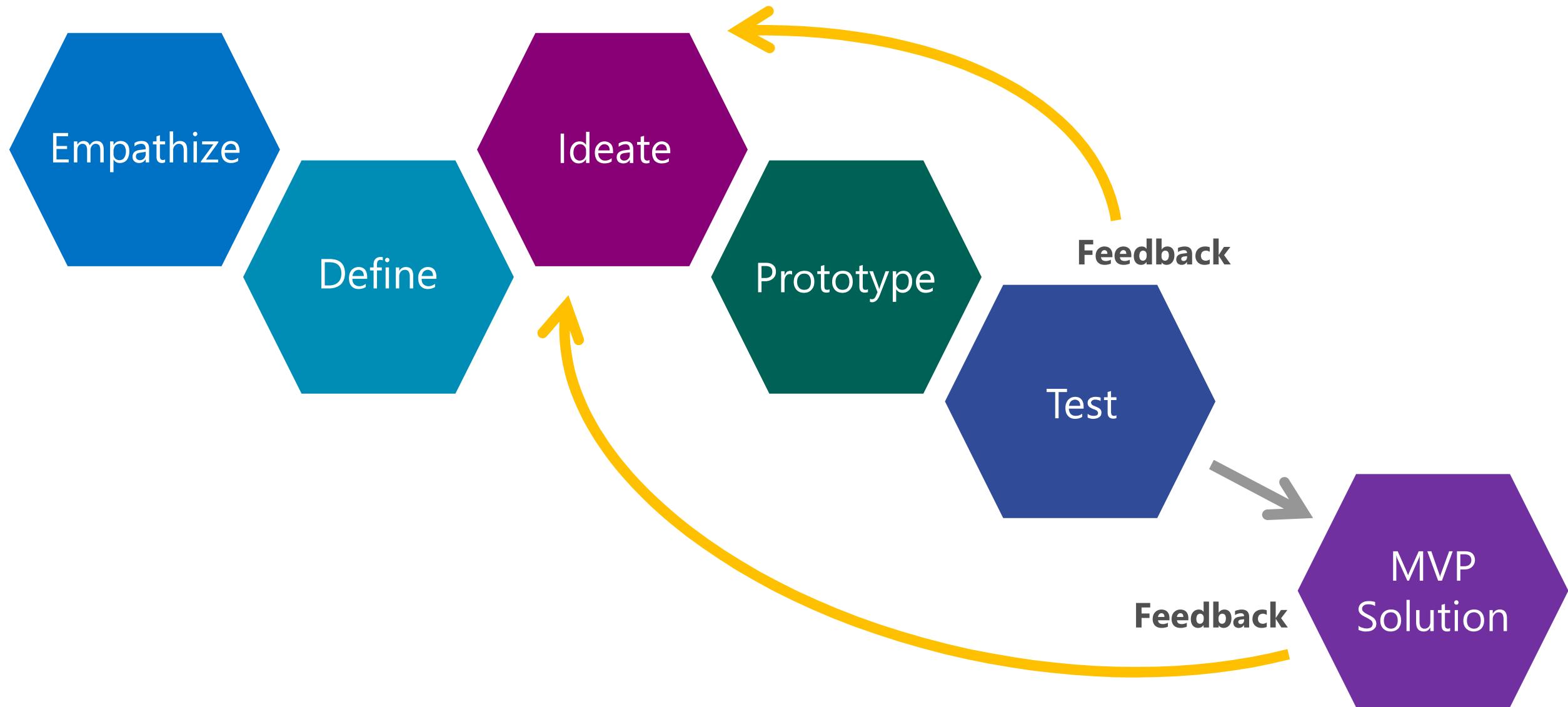
The product lifecycle is also iterative. Products aren't released one and done, they're updated, expanded, refreshed and sometimes deprecated based on what's learned from users.

How we design and how we engineer are tied together.

# Iterative product lifecycle



# Customer driven engineering



# Agile engineering

# What is agile engineering?

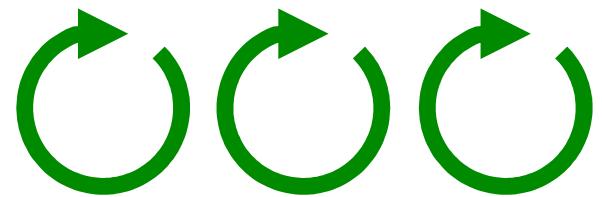
A process of iteratively building and releasing. Shipping units of customer stories, or features, based on user and business needs.

It allows a product to quickly react to opportunities, improving the user experience and keeping the product healthy.

Waterfall method of engineering is structured and rigid. It's design to mitigate risks and best suited to products that can't be delivered quickly or iteratively.

# Agile

# Waterfall

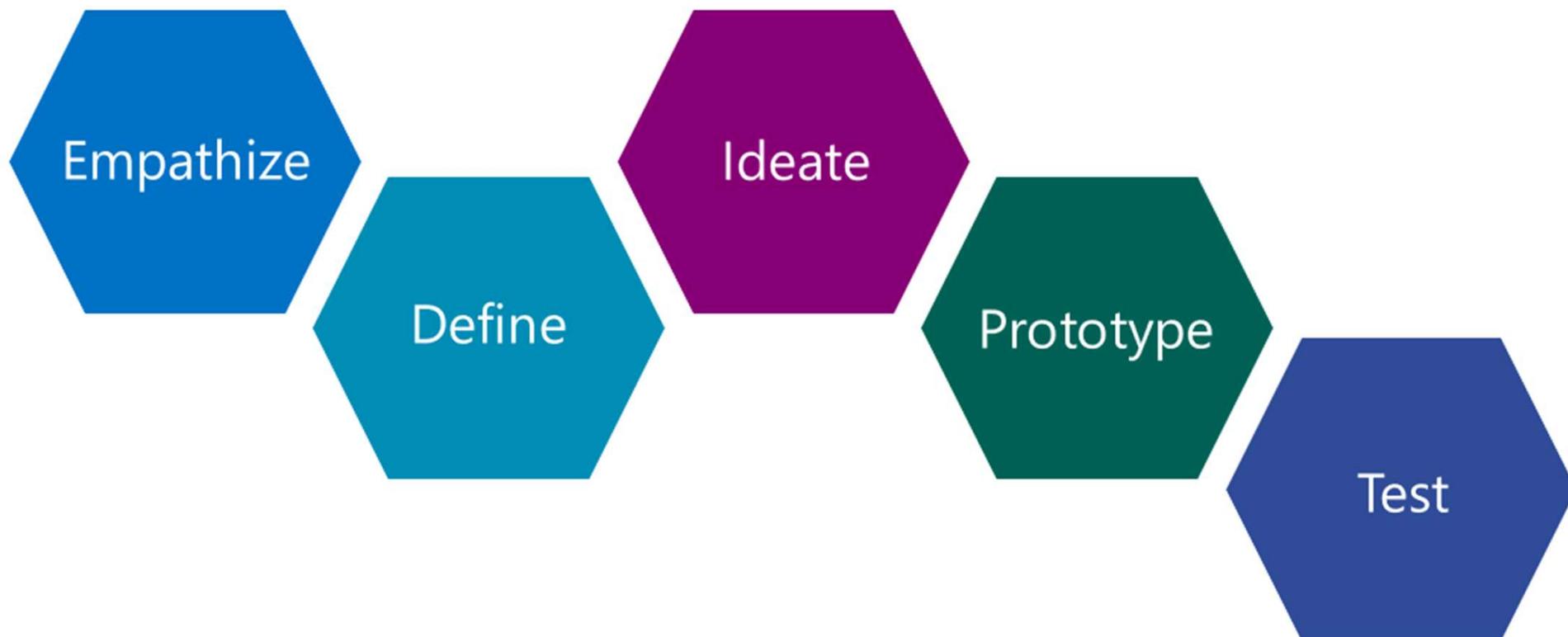


# How agile development works

- A feature crew determines what to build. A feature crew can include PM, designers, engineers, and UX researchers through the design phases.
- PM sets the requirements, design defines the UI, engineering figures out how to build it producing a **spec (specification)** and **engineering plan**.
- The feature crew scopes and prioritizes the work.
- The work is split into **sprints**, usually 2-week segments.
- Engineering builds, consulting the feature crew as needed.
- Everyone tests the product. Researchers define how to validate with customers.
- The feedback is applied, and the product gets better.
- The product ships when ready!
- Learn from the customer and repeat.

# Trying it out

# Design a refrigerator



# Design a refrigerator

- Where do you start? What do you want to know?
- How do you narrow down the problem?
- What ideas do you have?
- What's the first prototype you build?
- What are your goals for testing?

# Design a refrigerator

