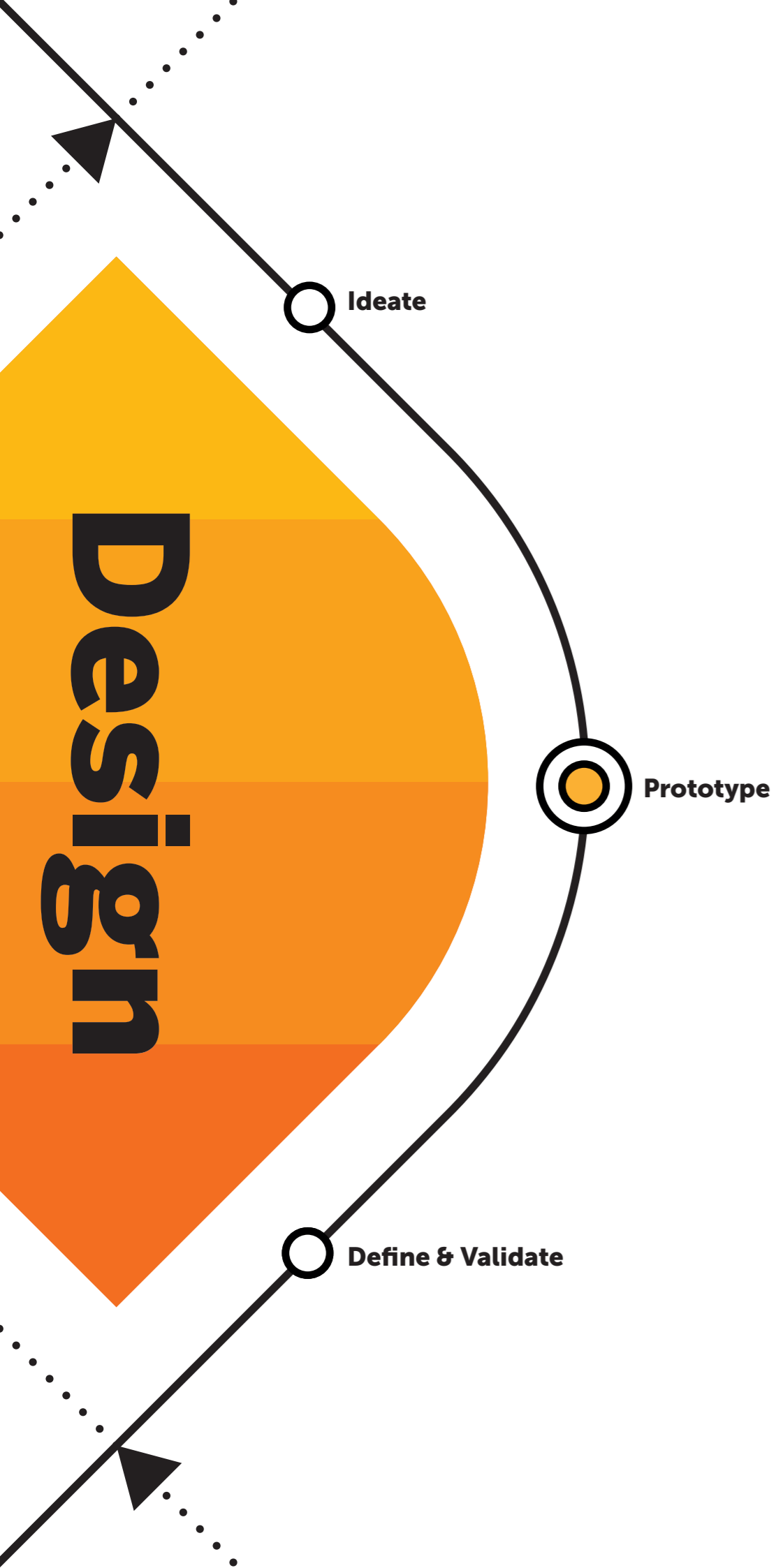# How to Build a Prototype

How to make ideas tangible and ready for validation by creating a model of how they might work.

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Ideate

Design

Prototype

Define & Validate

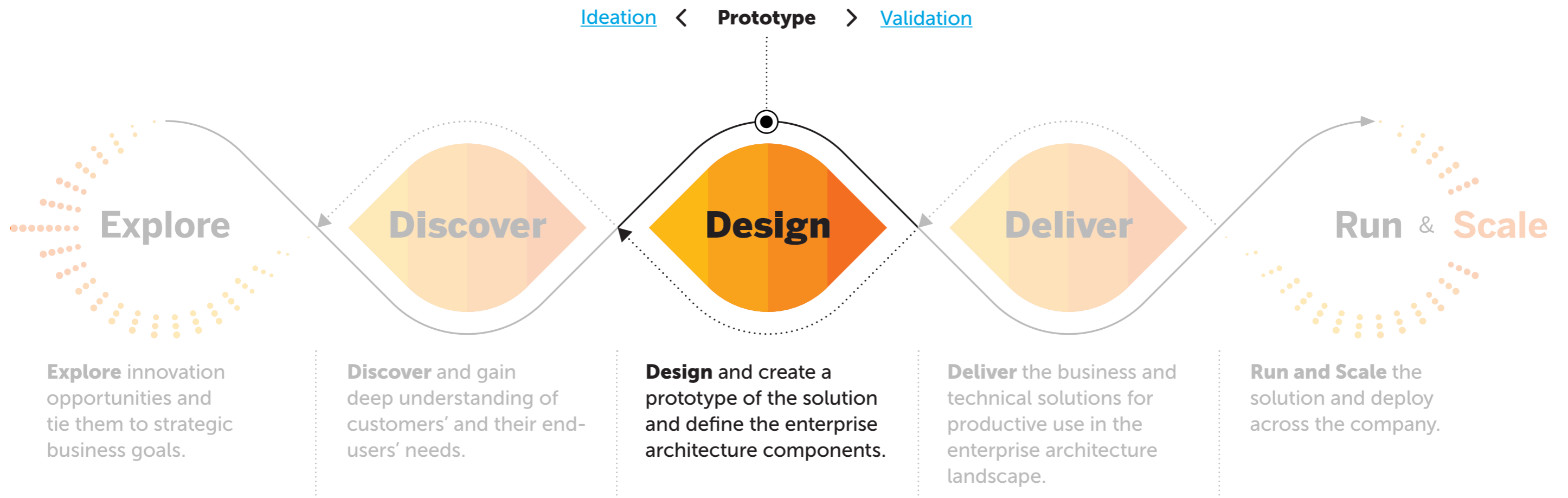# Why to build a
Prototype?

Once ideas have been generated, you need to test them and validate them with stakeholders and end users to make sure you are going in the right direction. Prototypes are a way to transform ideas described on paper into tangible representations that can be shown to others to get feedback.

Prototypes also help to develop your ideas further, understand them better and communicate and create a common understanding among project members about the ideas to be implemented.

When to build a
Prototype?

The creation of prototypes happens usually after ideation, during the Design Phase. Prototyping is an iterative activity. This means that initial prototypes are enhanced and recreated several times based on gathered feedback until the team is satisfied with the solution.

Ideation 〈 **Prototype** 〉 Validation

Explore

Discover

Design

Deliver

Run & **Scale**

Explore innovation opportunities and tie them to strategic business goals.

Discover and gain deep understanding of customers' and their end-users' needs.

Design and create a prototype of the solution and define the enterprise architecture components.

Deliver the business and technical solutions for productive use in the enterprise architecture landscape.

Run and Scale the solution and deploy across the company.

Lear more about SAP's Human-Centered Approach to Innovation: https://experience.sap.com/designservices/approach

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Detail level for your
Prototype

Depending on your project, the stage
you are in, and what you want to
validate, you might want to create a horizontal
or a vertical prototype.

Horizontal prototypes can cover
the entire concept of your project
but won't go into details, while
vertical prototype can cover certain
functionalities in depth.

Horizontal prototypes are more
useful during early stages of a
project, when it is important to know
if the entire idea makes sense. A good
example of a horizontal prototype is a
storyboard.

Vertical prototypes are very useful
during usability test sessions, when
you need to know if a certain feature
can be found or used as intended.
An example of a vertical prototype
is a clickthrough screenflow to
test the search functionality of an
e-commerce site.

Features / Scope

Functionality

Vertical Prototype

Horizontal Prototype

Whole System
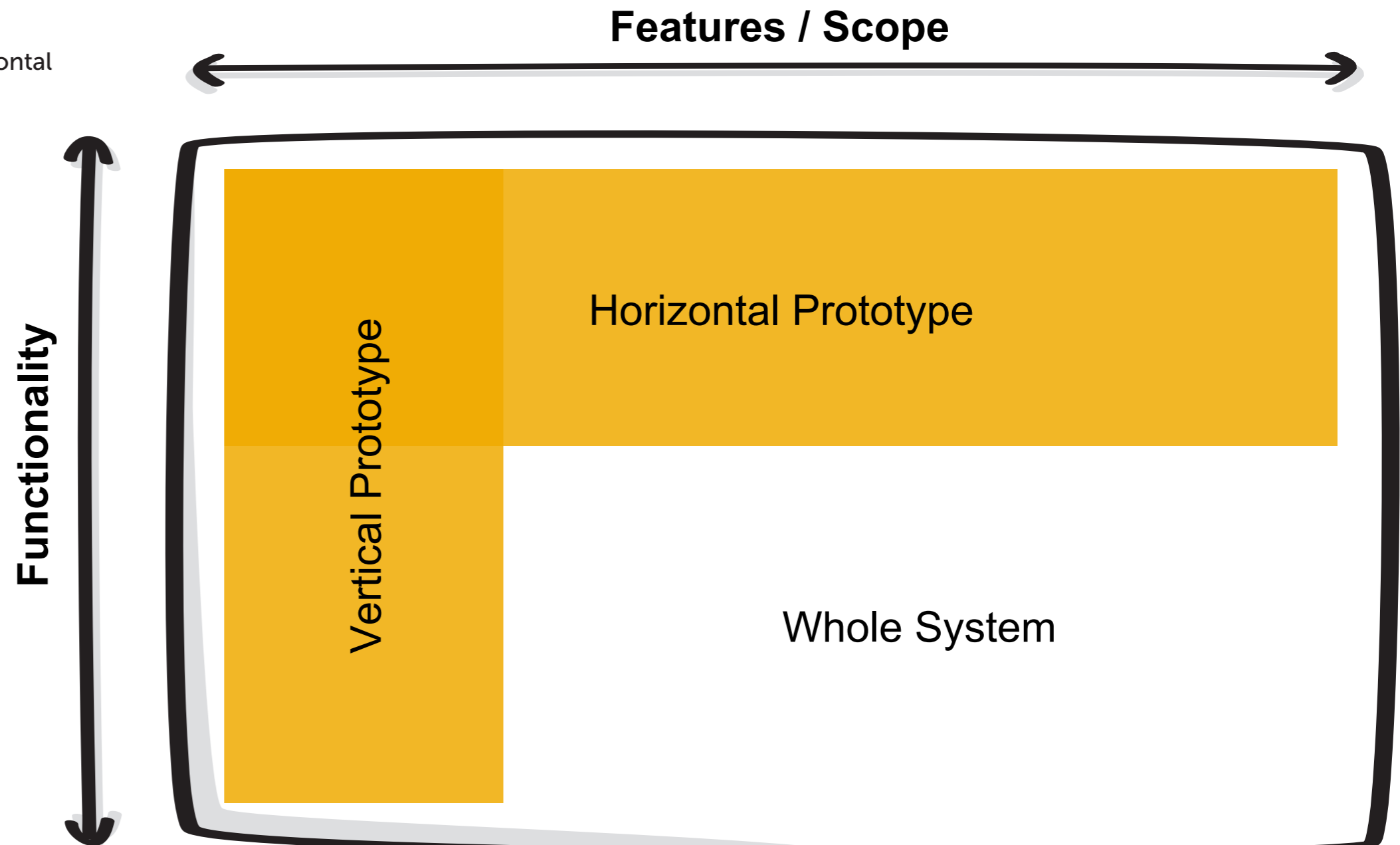
Some techniques for
Prototyping

Role Play
Together with your team, play out how the solution would work in a certain situation.
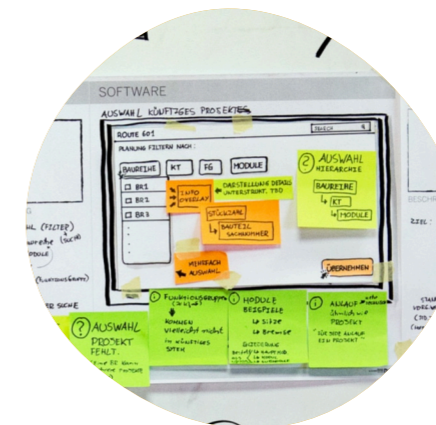

Storyboards
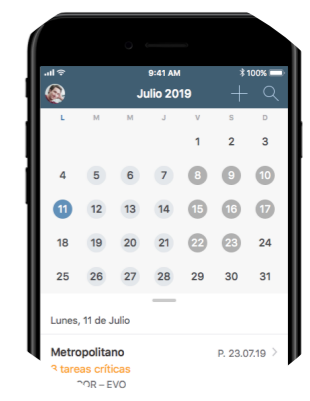Create a Vision Storyboard about your solution idea

Physical Prototypes
Build a prototype of your proposed product using materials like cardboard and foam board.

Paper Prototypes
Sketch out a screenflow of your solution idea with simple pen and paper.

Digital Click-Dummy
Create an interactive digital prototype with tools like Figma, Adobe XD or others

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How to
Prototype?

Duration
Method dependent

Participation
5 - 6 People

Roles
Designers, Architects, End-Users

Use input from
- **Ideation Session**
- **Idea Napkin**

Steps

1 Select the idea(s) you will create a prototype for.

2 Think about what aspects of your idea would you like to get feedback about.

3 Select a prototype method that fits the level of detail you want for your prototype and that will help you to validate the selected aspects.

4 Create the prototype using the selected method.

5 Get feedback and iterate

Expert Tips

Don't be afraid to show unfinished prototypes. The purpose of prototyping is to test ideas with minimum effort, so you can avoid major changes during design or implementation. Therefore, the time you spend on a prototype should be less than the time spent creating the real solution.

Prepare your validation questions in advance in order to know what parts of your solution to prototype.

Be ready to start over. Prototypes are meant to be discarded, so don't worry if validation indicates that you need to go back to the beginning.

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