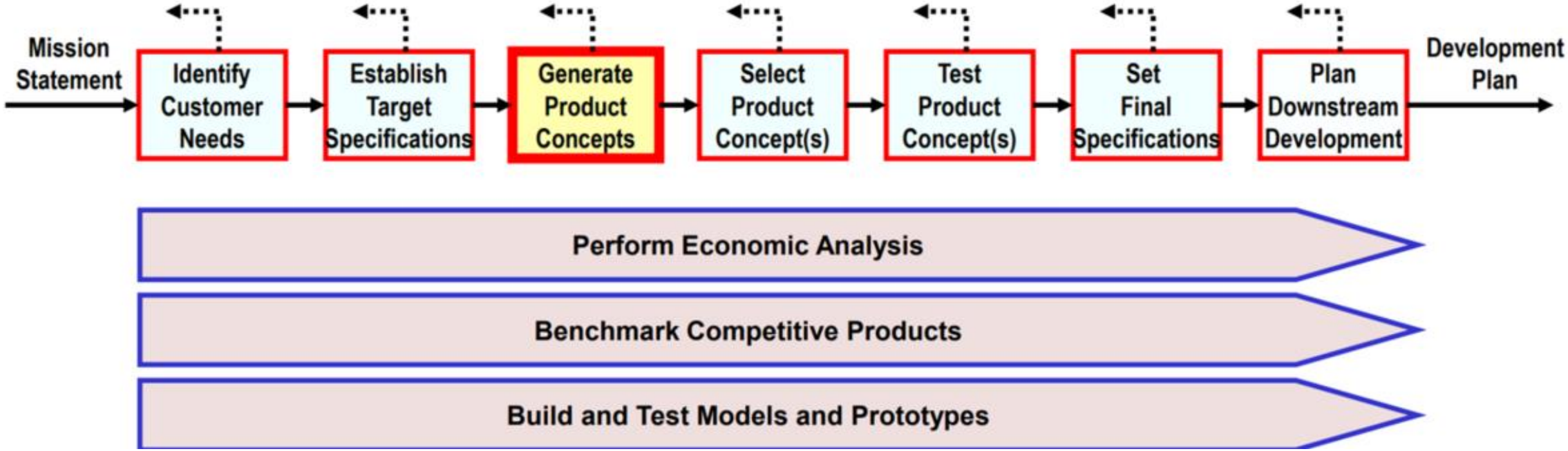
Phase 4: Prototyping

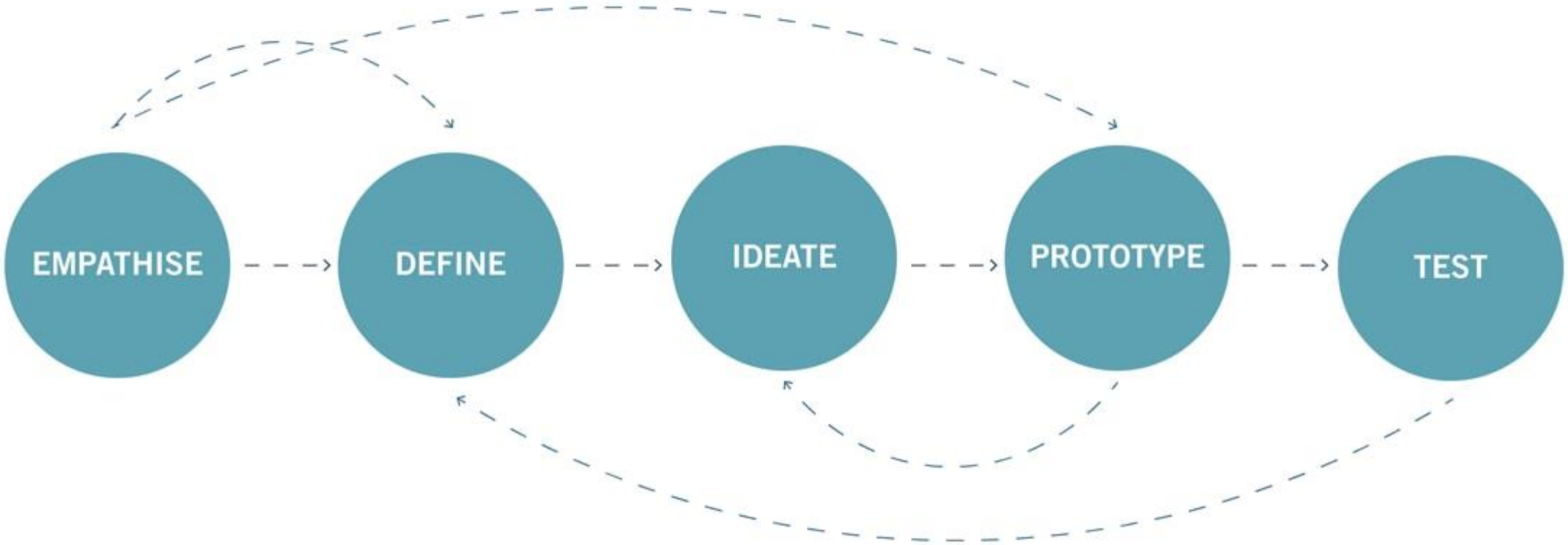
Concept Development Process



Why it is so important….

- Prototyping allows you to determine whether or not the design (or changes) work the way you intended them to—before they're out in the world and in the hands of your users.
- Before releasing a product to market, you want to make sure that it works as intended.
- Does it solve the user's problem exactly as planned?
- Is it user-friendly and intuitive?
- Ideally, you'll find these things out before you spend time and money developing the final product.

5 STEPS OF THE DESIGN THINKING PROCESS



Comment

What's special about design thinking is that it advocates a **solution-based approach** to problem-solving. Rather than fixating on obstacles and limitations, it encourages you **to experiment**, **iterate, and think outside the box**.

it’s important to bear in mind that the design thinking process is not linear.

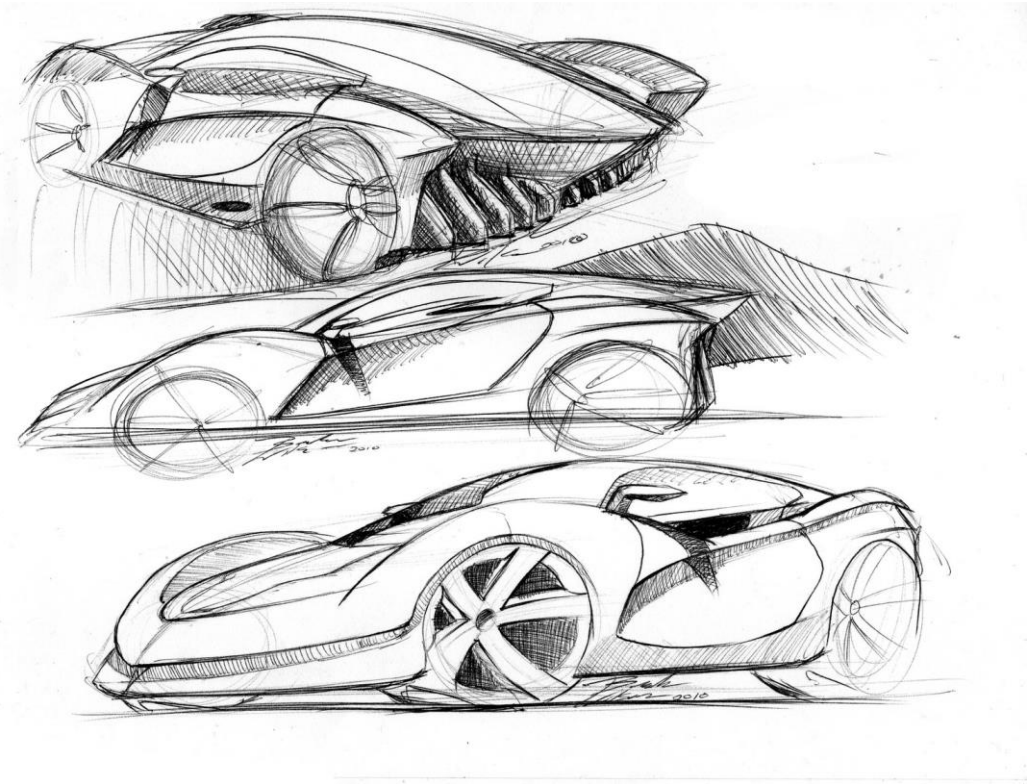
Each phase brings new discoveries to light, so don’t be surprised if you need to loop back to a previous step and redefine what you’ve done in order to move forward.

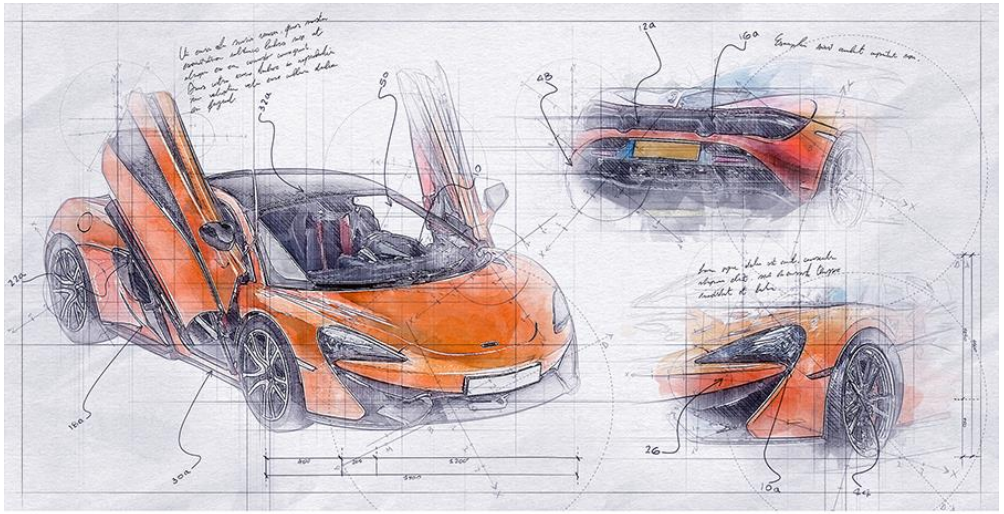
Prototyping?

***Put simply, a prototype is a scaled-down version of your product; a simulation or sample version which enables you to test your ideas and designs *before* investing time and money into actually developing the product.**

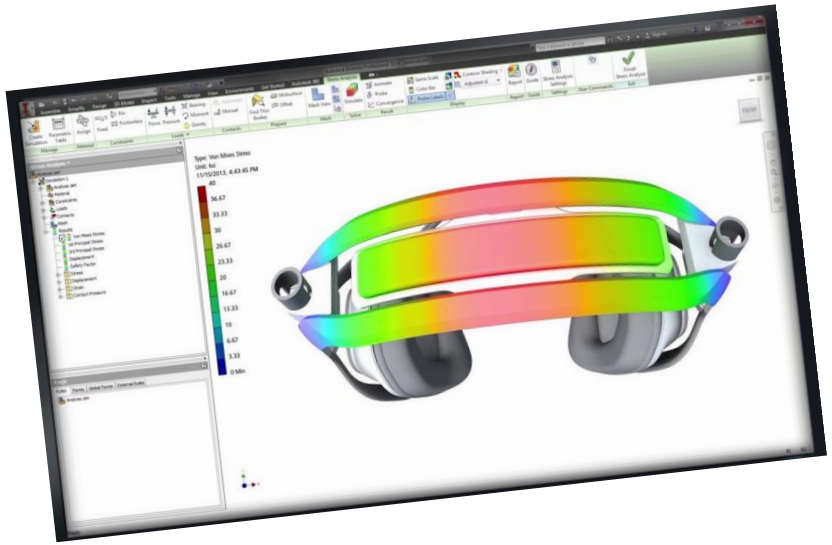
Prototypes

- Prototypes come in all different shapes and sizes, ranging from simple paper models to fully functional, interactive digital prototypes.





Concept Skecth - Photoshop Action

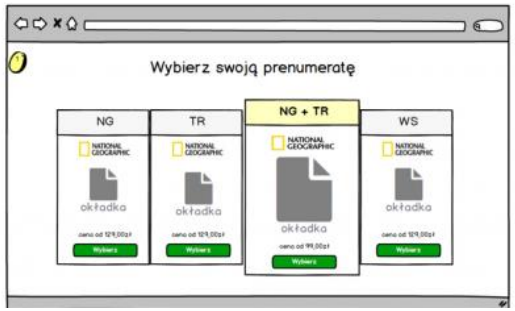


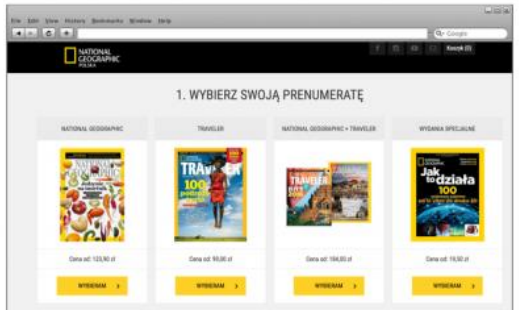
WIREFRAME

Structure + Functions + Content

MOCKUP

Style + Colours + Right Content





Digital Prototyping

Why Prototype? (1)

- an extremely valuable step in the design thinking process
- Putting the user at the heart of the process requires you to test your designs on real users
- and prototypes make this possible without spending loads of time and money

Why Prototype? (1)

- Gain first-hand insights into how your users will interact with
- an early version of the product in action provide if, and how, it’ll work in the real world
- Identify any usability issues or design flaws before it’s too late
- Prototypes enable you to fail early and cheaply
- expose a weak or unsuitable approach before investing too much time or money
- Make informed design decisions

Example

- Can’t decide where a certain button should go on your app home screen?
- Unable to decide between two different layouts for your website?
- Test a few versions in the form of prototypes and see which works best.

Why Prototype? (3)

- many people find it difficult to truly conceptualize a product until they have it in front of them
- Prototypes allow you to iterate, refine, rework, and make improvements until you have a market-ready product

Types of Prototypes

- Prototypes can vary in terms of their form, fidelity, interactivity, and lifecycle
- **Form:** Is it a hand-drawn prototype, or a digital one? Is it for mobile or desktop?
- **Fidelity:** How detailed and polished is the prototype? You'll often hear the terms high-fidelity and low-fidelity in relation to prototypes.
- **Interactivity:** How functional is the prototype? Can the user click on it or interact with it, or is it view-only?
- **Lifecycle:** Is the prototype a quick, disposable version that will be replaced with a new and improved version? Or is it a more enduring creation that can be built and improved upon, potentially ending up as the final product?

Fidelity….

- Generally, prototypes can be divided into low-fidelity and high-fidelity.
- Fidelity simply describes how similar to the final product the prototype is;
- whether it’s an accurate representation of the final product,
- or more of a basic, early-stage model.

So how do you know whether to use a low, mid, or high-fidelity prototype?

- **Low-fidelity prototypes** are ideal if you want to rapidly test broad concepts.
- They’re quick, cheap, and highly collaborative;
- they don’t require advanced design skills, so different people from different teams can easily be involved.

As a rule, low-fidelity prototypes keep content and visuals to a minimum, presenting only the key elements as basic shapes in order to convey visual hierarchy.

Mid-fidelity prototypes

- **Mid-fidelity prototypes** can also be inexpensive to create (depending on the tools you choose), and don’t require much design knowledge or experience.
- Great if you want to test broad functional features,
- such as the **user flow** for one particular use case
- (i.e., the user taps this button, which leads them here, then here then here).

Some of the most common low- and mid-fidelity prototyping techniques include paper prototyping and clickable wireframes.

Paper prototyping

- Paper prototypes are usually low-fidelity
- simulate interactivity during testing by moving the screens
- it’s quick and affordable, and can be used to document the evolution of your design, giving you tangible artefacts to refer back to
- best kept to the very early stages of the design process

Digital Prototype

- can also be used as low-fidelity prototypes
- A clickable wireframe not only represents the visual layout of a digital interface
- but also offers a certain degree of interactivity
- can simulate the journey a user might go through by including hyperlinked buttons which lead to another wireframe
- The great thing about clickable wireframes is that they can be quickly and easily modified

Native Prototype

- prototype is an early sample, model, or release of a product built to test a concept or process.
- It is a term used in a variety of contexts, including semantics, design, electronics, and software programming.

High-fidelity prototypes

- **high-fidelity prototypes: the more detailed, realistic prototypes that look and operate much like the final product.**
- You move onto hi-fi prototypes once you have a good idea of what you’re going to build

Video

- Rapid Prototyping: https://www.youtube.com/watch?v=Vpd7uov5UM0
- How to Sketch: https://www.youtube.com/watch?v=qqva-bcEnHA
- Start Drawing: https://www.youtube.com/watch?v=OezMavBqWXc

Other Tools

Other sources of Prototyping:

1. Example: 3D priniting Eiffel Tower Time Lapse

https://www.youtube.com/watch?v=FqQAjkZOBeY

2. 3D Pen (Watch as much as you want, just to take an idea of the tool)

https://www.youtube.com/watch?v=29dsCVFI0HM

Thank you :)