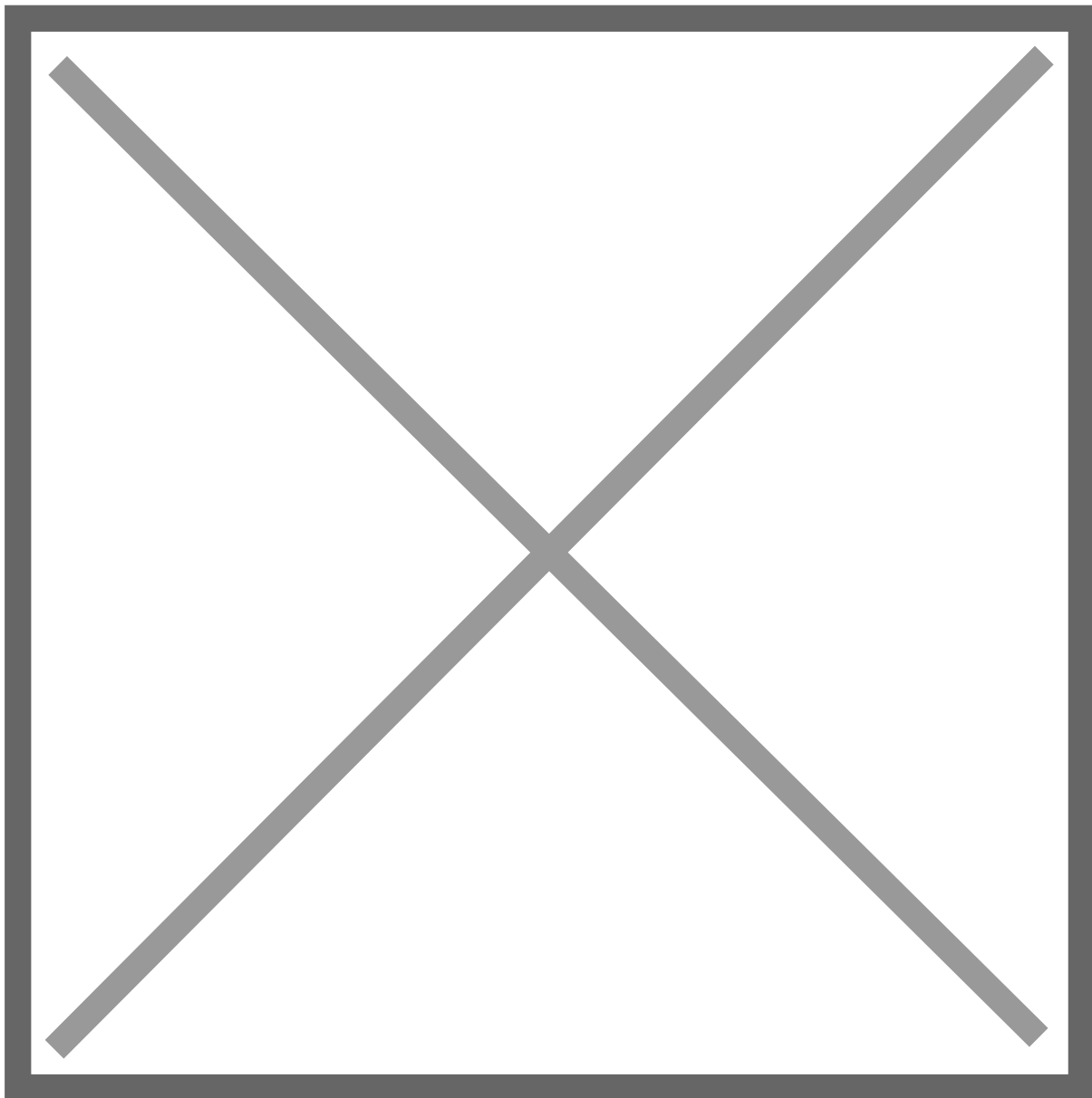


# Design Thinking

Design thinking is an approach to problem-solving and innovation. It's a way of thinking and acting that allows us to find new solutions to challenges by engaging with them using a combination of intuition, experience, and analysis. Our application of the methodology encourages finding new ways of looking at a problem and creating new solutions. Fundamentally it is a human-centred approach to innovation that draws on the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements of business. Design thinking helps us understand people's lives by empathising with them, developing ideas with them, testing those ideas in real world settings and improving them over time through iteration.



**Figure 1**

# Empathy

Empathy is the foundation of our Design Thinking approach. The objective here is to immerse ourselves into the worlds of our end users, setting aside any assumptions about the users and the problem in order to uncover deep needs and insights and thus inform our decision making. It is important in design thinking because it allows us to understand the needs and perspectives of the end users, which helps to create products and services that are more user-centred and effective. Empathy also helps us to identify and address potential pain points or challenges that users may experience, leading to more innovative and inclusive solutions. There are a number of approaches we can apply in order to better empathise with our users we go into more detail in the [Process Checklist](#).

## Define

In the Define phase we synthesise the findings from the Empathy phase and develop a problem statement also referred to as the Point of View (POV) statement that is instrumental in reframing the problem and opening new and innovative solution spaces. This phase in the design thinking process is key for creating alignment between key stakeholders. Collectively defining the problem to be solved and the criteria for success helps to align expectations on the final product and sets the scope for the assignment. Creating a joint vision helps those involved to picture a common goal that they are working towards and inspires and motivates people to contribute to the process. During the define phase it is likely that assumptions will surface about the product or the end user. Listing these assumptions allows you to validate them with the end user in the next steps of the process. Effectively defining a problem to be addressed is essentially creating a North Star to guide the solution building, In the [Process Checklist](#) we outline some approaches that could be applied for effective problem definition.

## Ideate

The Ideate phase entails divergent thinking where a multitude of ideas are generated and sifted based on the problem statement in order to select the most promising solutions for prototyping.

Some of the Key activities undertaken in this phase include.

- Generate as many ideas as possible & sift through the strongest contenders.
- Define a criteria for assessing the strongest ideas.
- Visualise the ideas (storyboard).

The [Process checklist](#) provides some templates to facilitate an effective Ideation Phase

## Prototype

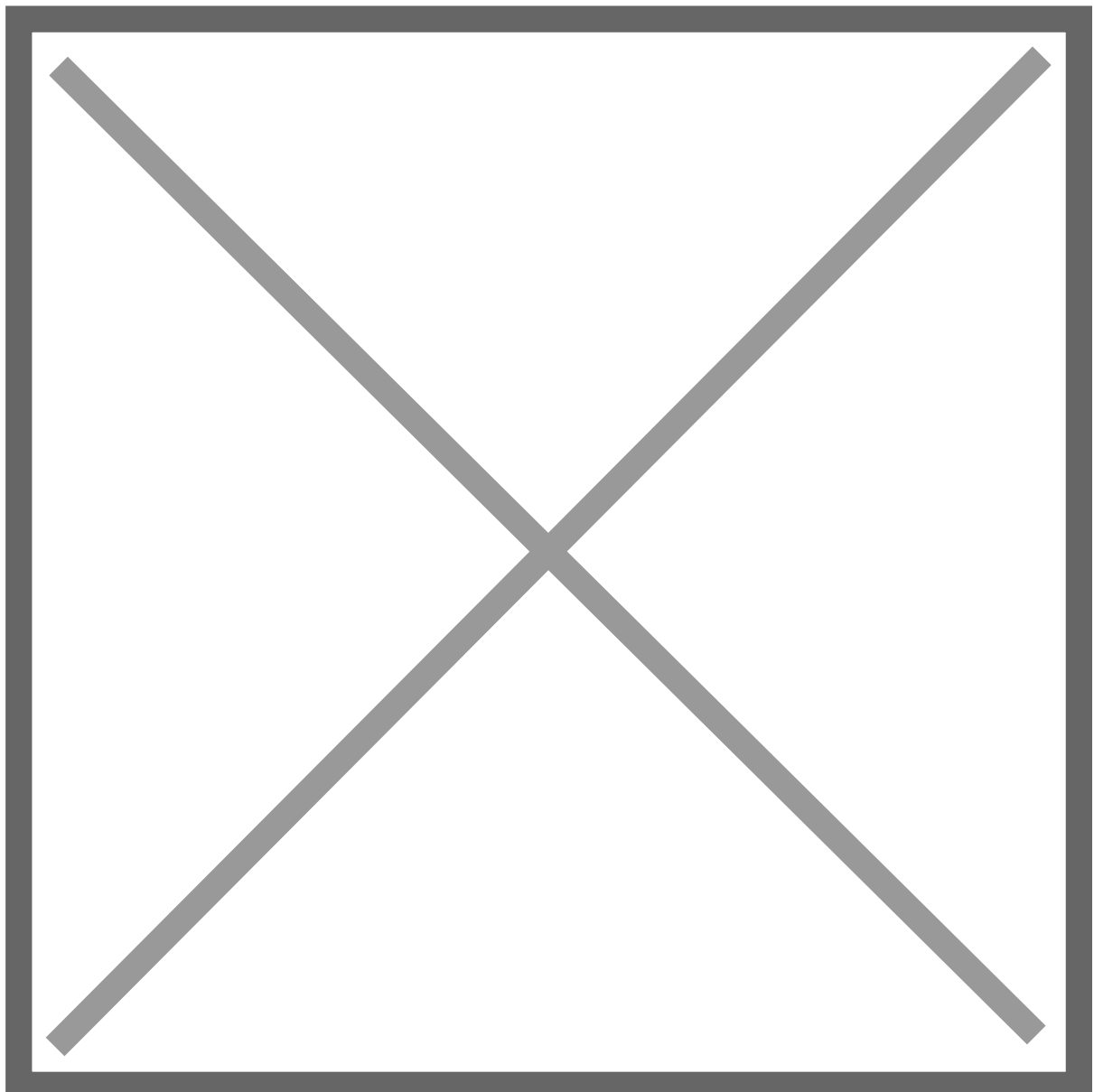
The objective of the prototyping phase is to answer critical questions quickly; it involves transforming ideas and explorations into a tangible form, whether it be a set of post-it notes, a role-

playing activity, a physical space, an object, an interface, or even a storyboard.

The fidelity of the prototype is primarily determined by the questions we are trying to answer. A rule of thumb is to aim for “Goldilocks” quality where it’s not too low fidelity that the intended users are not able to view it as a real product and not too high fidelity that it takes too much time to build.

The fidelity of the prototype increases iteratively as we validate our ideas on the scaled down version of the product or specific features of the product. In early stages, it's crucial to keep prototypes rough and quick to facilitate rapid learning and exploration of various options.

Prototyping is most effective when stakeholders, including the design team and users, can interact with and experience it, allowing for deeper empathy and shaping successful solutions. The insights gained from these interactions can guide further development.



## Figure 2

### Test

The testing phase entails validating the solution with real users. The results from this phase are useful in redefining one or more further problems and since the design thinking methodology is iterative we can return to previous stages to make alterations and refinements to find or rule out alternative solutions. As outlined in figure 1 the testing phase should ideally reveal any overlooked issues and lead to defining new problems and going through the cycle again. For complex platforms and applications it is important to invest in testing at this stage as it is significantly less costly than during the development phase to make amendments.

### More Resources

<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-design-thinking>

<https://www.interaction-design.org/literature/topics/design-thinking>

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