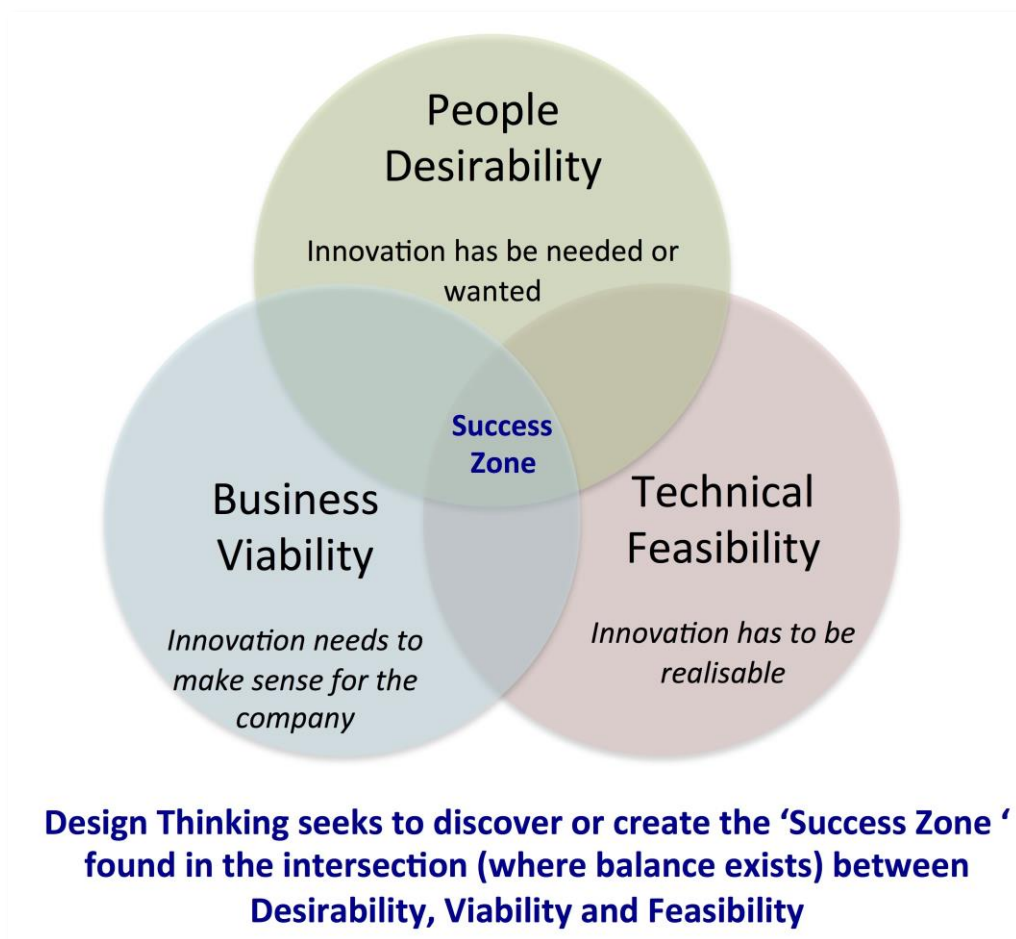


Innovation and Design Thinking

Design Thinking is an approach that has developed from the mid-1980s onwards. It evolved from several methods focused on improving business, service and design.^{Ref1}

Experience strongly suggests that genuine innovation is achieved through balancing three key drivers:



In essence **Design Thinking** is a strategy making process that builds on the world of design combined with understanding human behaviour. **Design Thinking** is especially useful when addressing ill-defined or tricky problems where both the problem and the solution are unknown at the outset of the design or solution finding exercise.

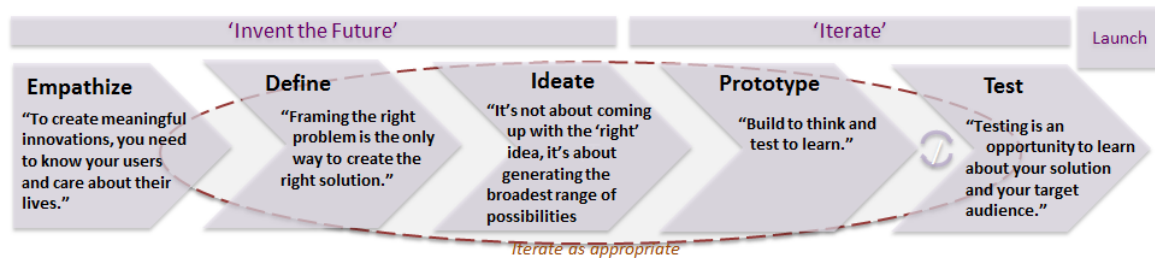
It has three major phases

1. 'Invent the future' – by forming theories of what customers might want (though they may not know it yet) and do not yet have, by really understanding the details of their lives and behaviours.

2. Iteration Phase - Test the ideas out – through 'good enough' rapid proto-typing to experiment to see how (potential) customers respond – iterating the idea (i.e. adjust the product, the product price or product positioning).
3. Bring the new service or product to life – with appropriate detailed planning of what is necessary for production, distribution and marketing

So, in essence **Design Thinking** first defines the problem, through detailed human centric research and then shapes solution options, which may be radically different to an evolutionary development of the current status quo. These options are then road-tested before the chosen solution is implemented. Throughout this process the needs of the user demographic at the core of concept development is kept central. At the core of this process is a bias towards action and creation: by creating and testing something, you can continue to learn and improve upon your initial ideas. This process focuses on need finding, understanding, creating, thinking, and doing.

The key phases in the process are illustrated below. (taken from Ref2 & Ref3)



The **Empathize** phase is focused on understanding people - the audience (i.e. your potential client / customer / user) and their experience within the context of your design challenge.

The aim is understand the way they do things and why, their physical and emotional needs, how they think about world, and what is meaningful to them.

This is done by Observing, Engaging, Watching & Listening – i.e. fully immersing yourself in their experiences.

The objectives is to become an expert on the subject and gaining invaluable empathy for the audience you are seeking to target

The **Define** phase is about bringing clarity and focus to the design space.

The objective is to define the challenge you are taking on, based on what you have learned about your audience. It is about making sense of the widespread information gathered in the Empathize phase.

The goal is to craft a meaningful and actionable problem statement – this is what we call a point-of-view.

This should be a guiding statement that focuses on the insights and needs of the target audience.

In the **Ideate** phase the focus is on idea generation - moving from identifying problems to creating solutions for your target audience.

It is about pushing for a widest possible range of ideas from which you can select, not simply finding a single, best solution. The determination of the best solution will be discovered later, through user testing and feedback.

It is important to:

- Step beyond obvious solutions and thus increase the innovation potential of your solution set
- Uncover unexpected areas of exploration
- Create fluency (volume) and flexibility (variety) in your innovation options

The **Prototype** phase is the iterative generation of artifacts intended to answer questions that get you closer to your final solution.

Key benefits are:

- Conversation: Your interactions with users are richer when centered around a conversation piece.
- To fail quickly and cheaply. Committing as few resources as possible to each idea means less time and money invested up front.
- To test possibilities. Using quick and cheap prototypes allows you to pursue many different ideas without committing to a direction too early on.
- To manage the solution-building process. Identifying a variable also encourages you to break a large problem down into smaller, testable chunks.

The **Test** phase is for getting feedback, about the prototypes you have created, with your target audience and have another opportunity to gain empathy for the people you are designing for. It enables:

- **Refining prototypes and solutions** - Testing informs the next iterations of prototypes. This may mean going back 'to the drawing board'.
- **To learn more about your user** - another opportunity to build empathy through observation and engagement—it often yields unexpected insights.
- **To refine your Point of View (POV)** – Testing may reveals that not only did you not get the solution right, but also that you failed to frame the problem correctly.

As with most frameworks and consulting methodologies, **Design Thinking** is an approach – not a 'magic wand'.^{Ref4} Rather, it is a helpful technique which should complement other business strategy and product development processes.

Acknowledgements / Further Reading

Ref1: A brief history of design thinking- how design thinking came to be: <https://ithinkidesign.wordpress.com/2012/06/08/a-brief-history-of-design-thinking-how-design-thinking-came-to-be/>

Ref2: The design thinking process:
<http://dschool.stanford.edu/redesigningtheater/the-design-thinking-process/>

Ref3: An Introduction to Design Thinking PROCESS GUIDE
<https://dschool.stanford.edu/sandbox/groups/designresources/wiki/36873/attachments/74b3d/ModeGuideBOOTCAMP2010L.pdf?sessionID=c2bb722c7c1ad51462291013c0eeb6c47f33e564>

Ref4: Beyond Design Thinking:
http://dupress.com/articles/beyond-design-thinking-business-trends/?id=us:2ps:3gl:bus_ecosys:awa:dup:050115&gclid=CO68s6qA4cgCFQX3wgodtZQDow