Risk and Intrepreneurship

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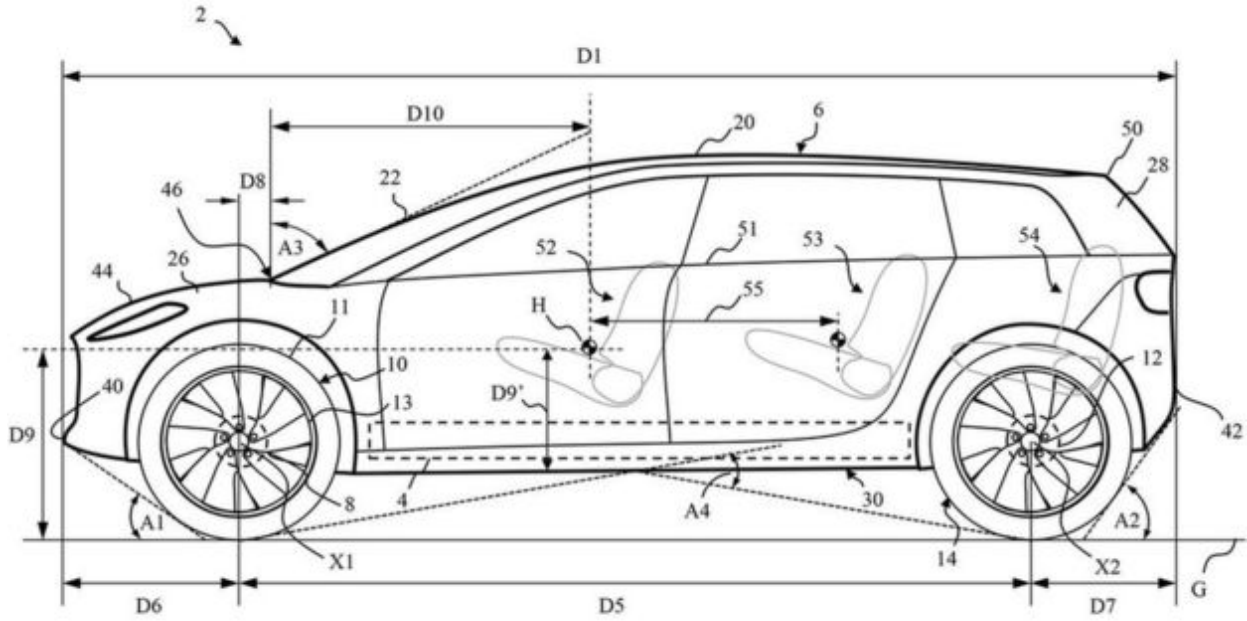
Today

- Project risk example – in the news
- The Innovation Gamble
- Attempting to reduce project risk
- Visioning the future
- Innovation in your organisation
- Design thinking – validating projects with a human-centre
- Prototyping example

Dyson scraps its electric car project (Oct 2019)



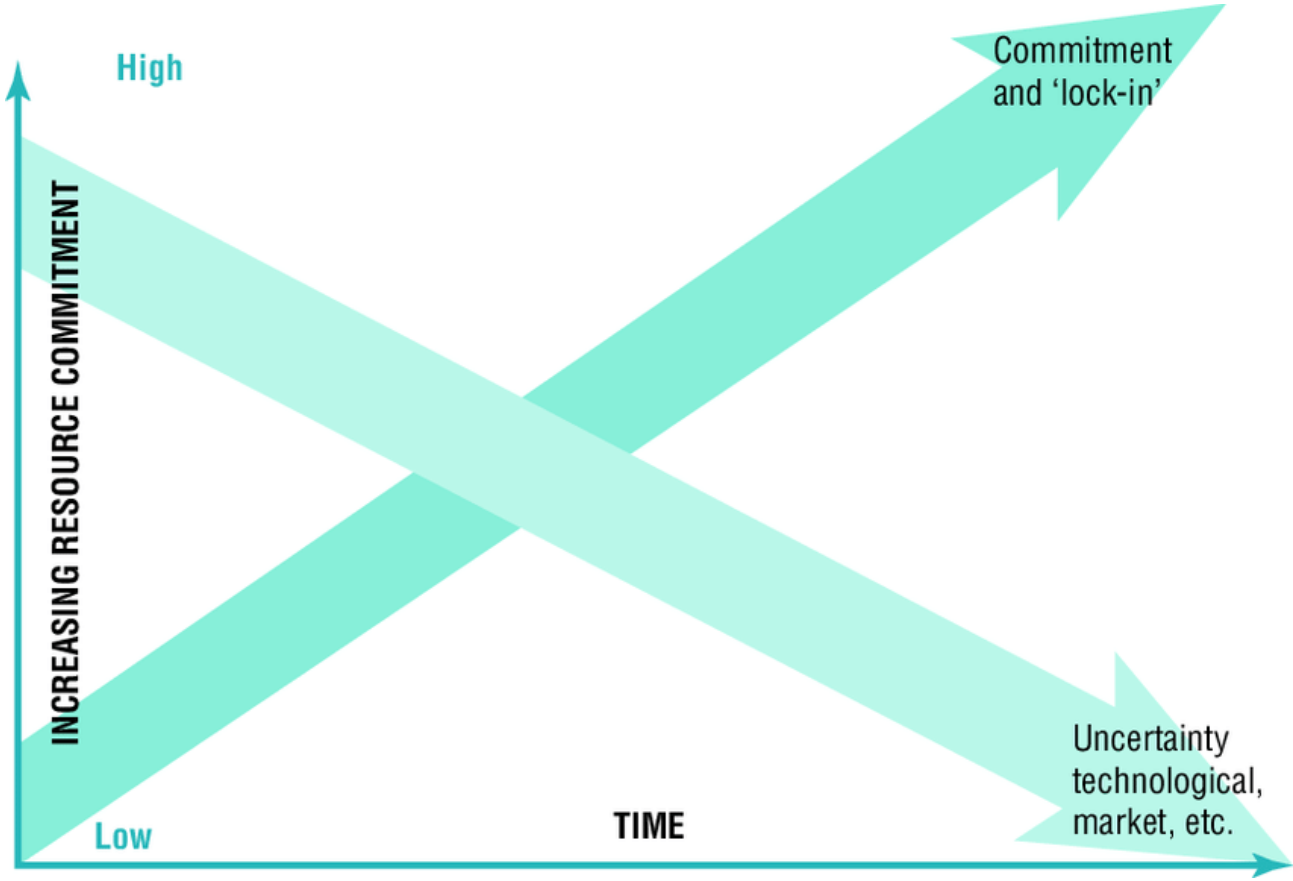
- 500 people employed on project
- Image shows patent diagram from 2019
- “We had vehicles rolling and are very proud of the car that the team have developed. Unfortunately, however, we cannot see a commercial future for the vehicle due to reasons in the industry which have been widely discussed.” Dyson spokesperson
- “Having an idea for doing something better and making it happen – even though it appears impossible. That’s still my dream.” James Dyson
- Patented design elements may be sold to car manufacturers
- https://www.wired.co.uk/article/dyson-electric-car-cancelled-inside-story

The Innovation Gamble?

- Gambling & innovation both require resources to be committed with an uncertain outcome.
- Innovation management tries to convert initial uncertainty to a calculated risk.
- Assessment of risk and potential rewards may have incomplete information.
- Incremental innovation is lower risk and beneficial but lower rewards than more radical innovation

Converting Uncertainty to Calculated Risk

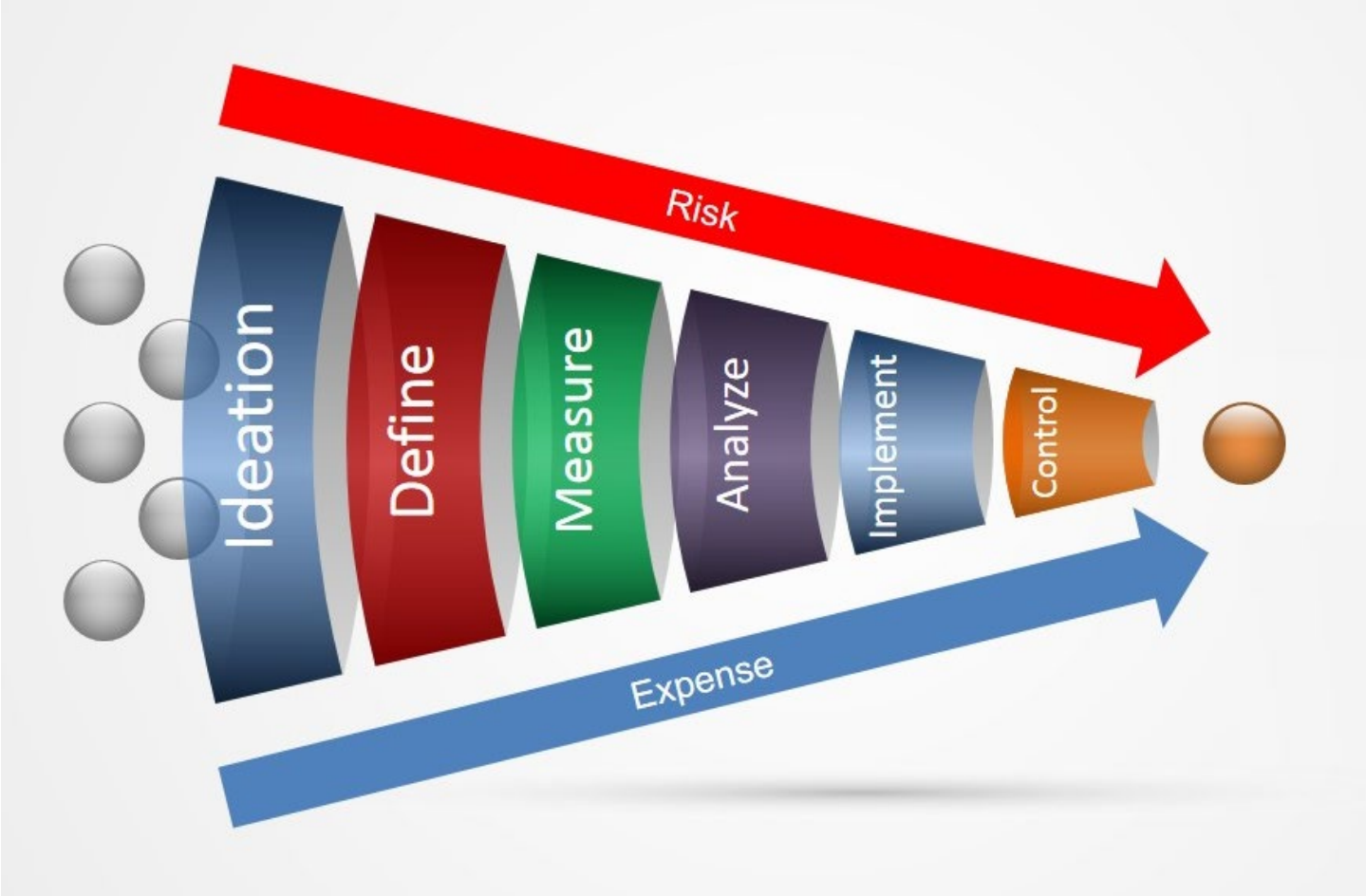
- The more we know about risks and benefits, the more we can commit resources.
- Increased knowledge removed personal / emotive judgements / decisions.
- In Russian Roulette we would happily ‘buy a look’ into the gun chamber before deciding to proceed.



Uncertainty and resource commitment in innovation projects.
Ref: Tidd and Bessant

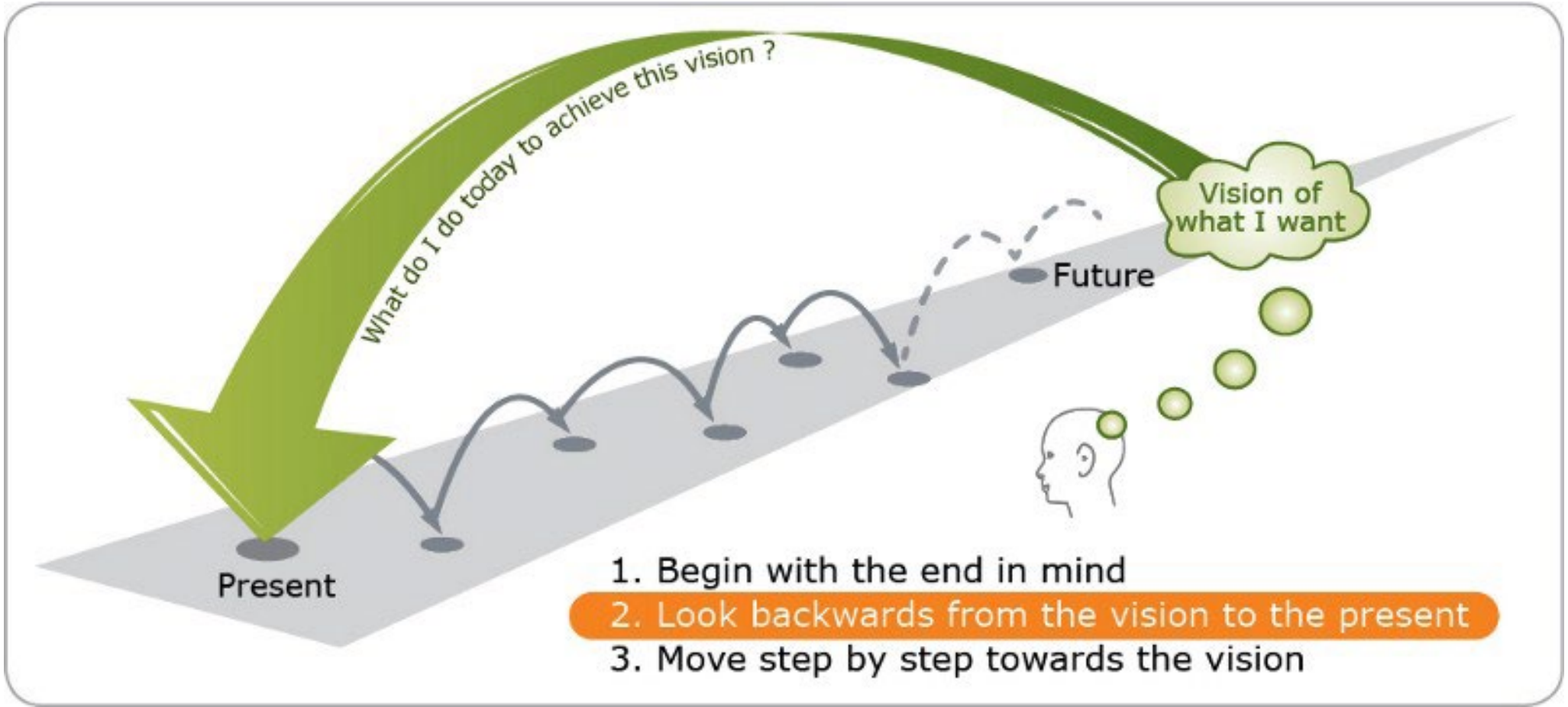
The Innovation Funnel

- An innovation roadmap to help make and review decisions on resource commitment.
- Adapted from work by Robert Cooper who studies thousands of new product development projects
- Replace one big ‘Go’ or ‘Stop’ decision with incremental decisions



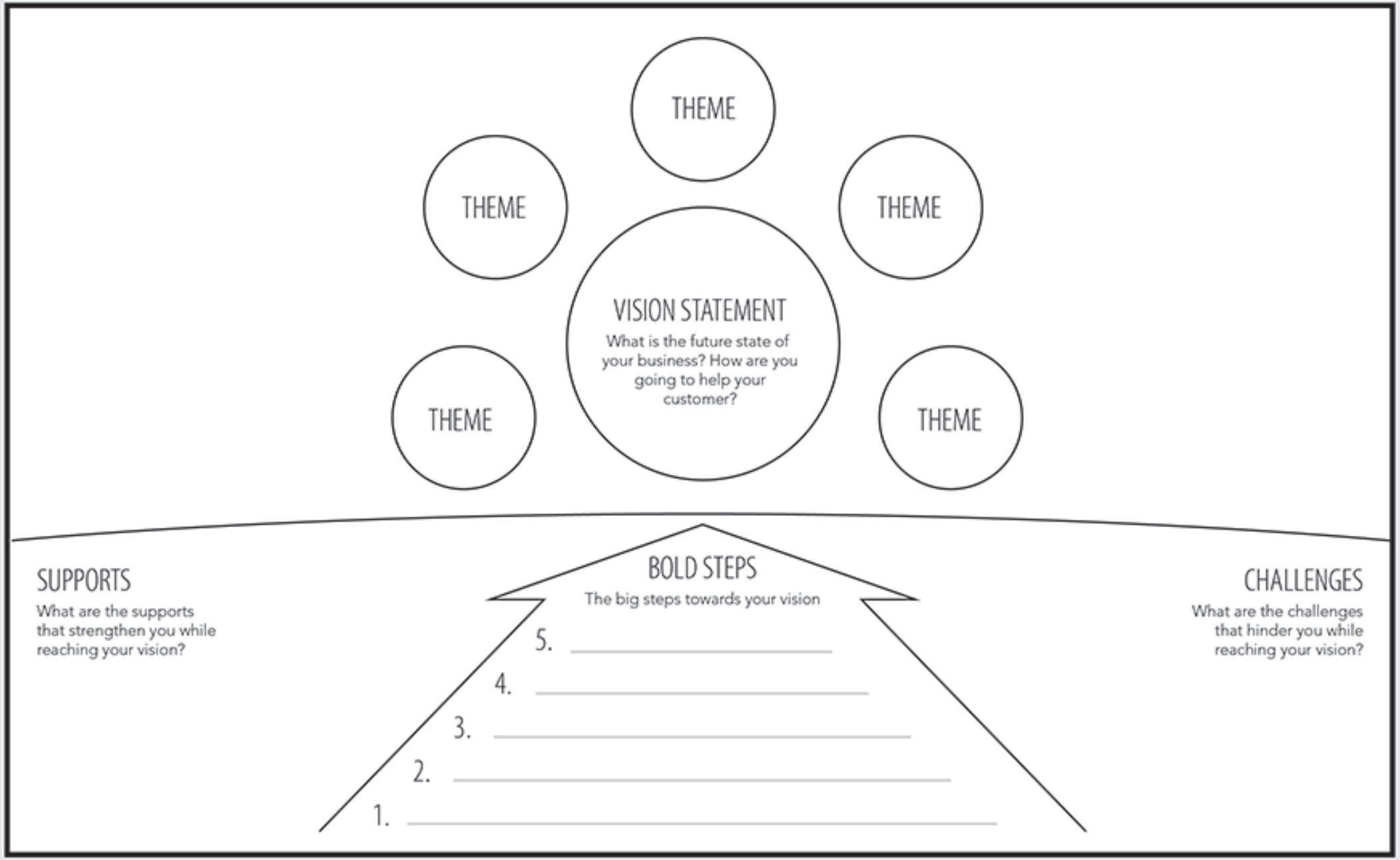
Future State Visioning

- A set of processes for determining what and where you want to be by a future date.
- Can apply to a product, process, business or organisation (Stewart, 1993)



5 BOLD STEPS VISION® CANVAS

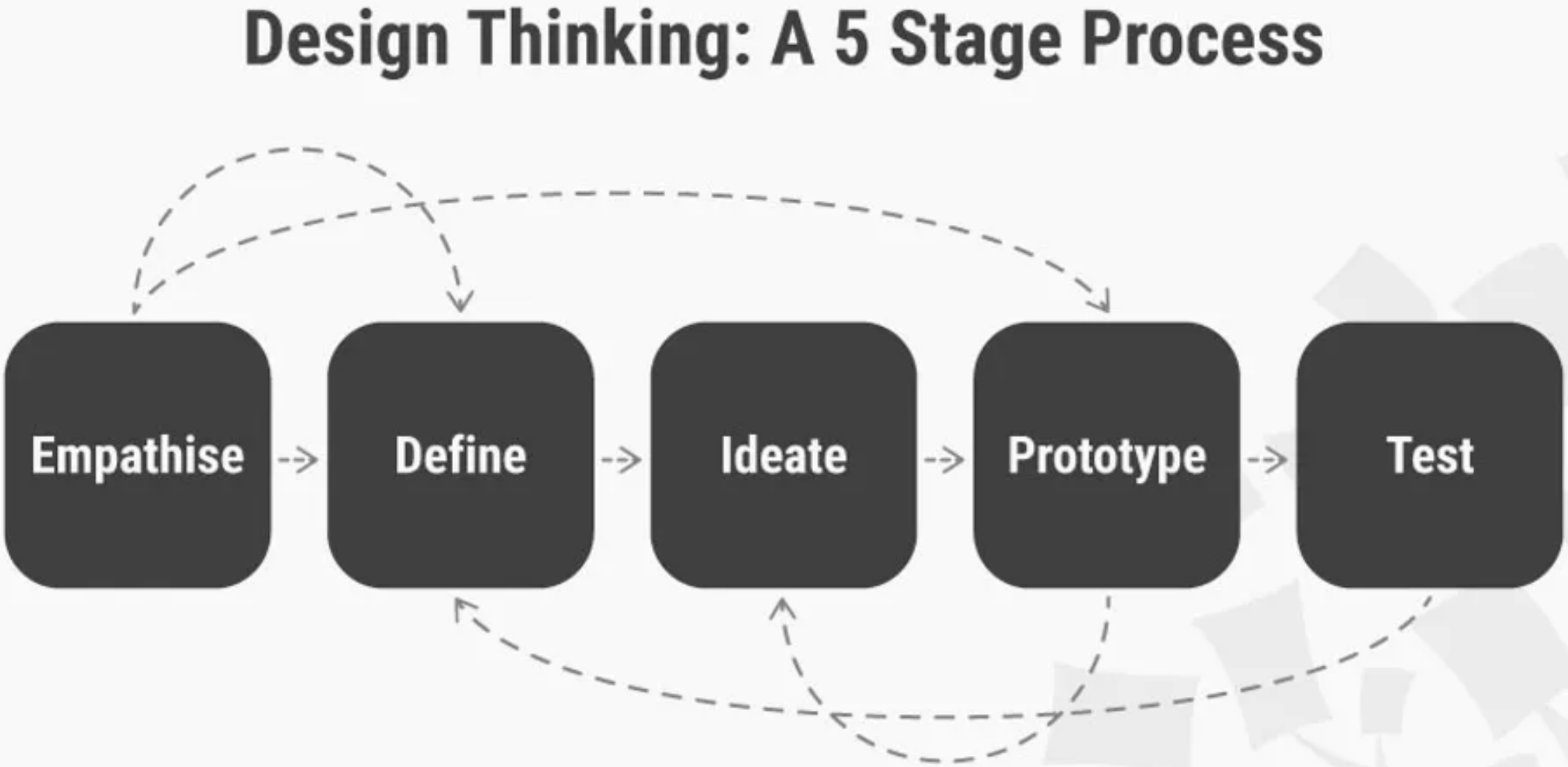
DESIGN A BETTER BUSINESS



Innovation in Your Organisation

- What would the future vision of a product / service in your organisation look like? Write it down.
- How does this vision help your customers / patients / citizens?
- List five big steps towards your vision
- How do you know if your vision aligns with the needs of your customers?

Design Thinking – People Centred Process



Why Design Thinking?

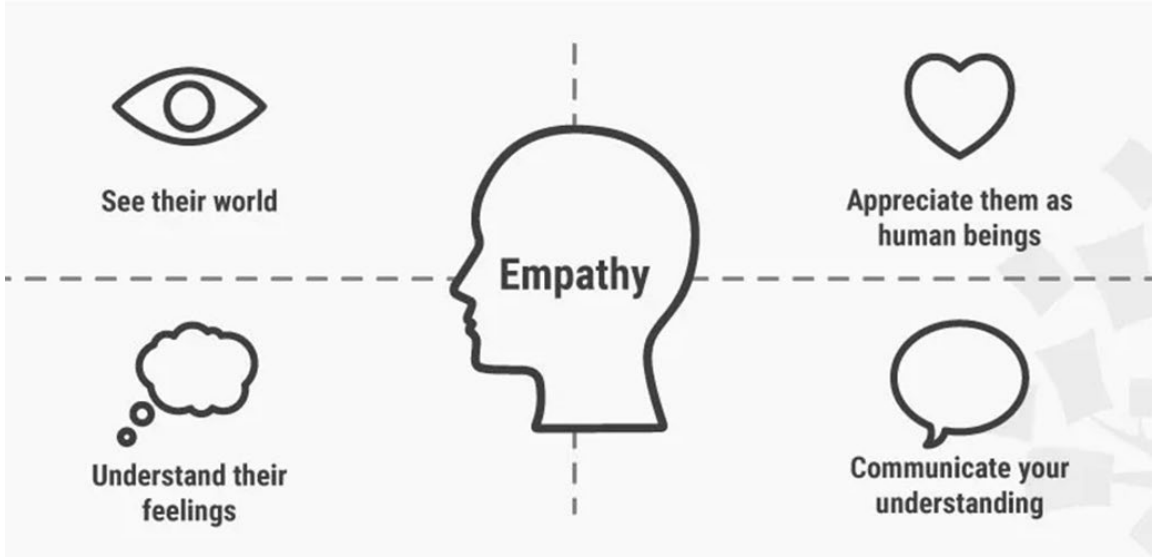
- 7 year study into 50 projects from a range of sectors, including business, health care, and social services
- “Design thinking, has the potential to do for innovation what TQM did for manufacturing: unleash people’s full creative energies, win their commitment, and radically improve processes.” HBR 2018
- https://hbr.org/2018/09/why-design-thinking-works

Interaction Design Foundation
Great resources & information on Design Thinking

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

1. Empathise - Research Your Users' Needs

- Who – am I designing for?
  - Customers? Patients? Citizens?
  - How can I best understand them?
  - Can I walk in their shoes?
- What problems do they have?
  - Empathy maps
  - Personas
  - Jobs to be done
  - User journey map
- What are their needs / requirements?
  - e.g. same-day response from Doctor online may be more valued by patients than waiting a week for a face-to-face meeting

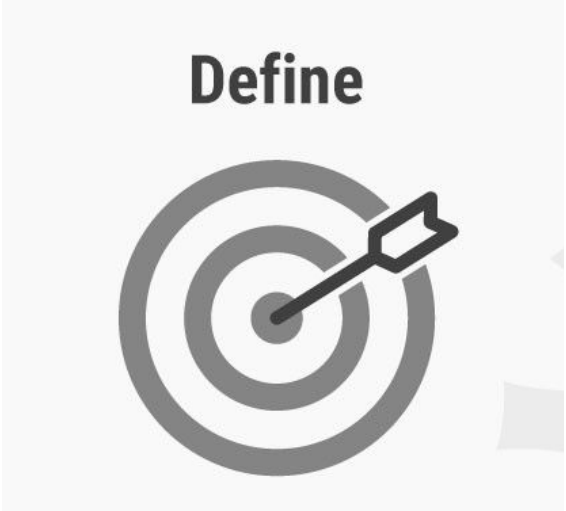


How could you gain a deeper understanding of your customers needs (empathise) to shape your innovation?

What primary & secondary research could I do?

2. Define - State Your Users' Needs & Problems

- Analyse your data – break problem down into parts
- Synthesise – reassess & reform the parts in a new way
- Problem statements:
  - Formulate the primary problem into a clear design challenge.
  - Define the key problem coherently and concisely
  - Have the criteria to evaluate ideas.
  - Can use it to guide innovation efforts.
  - Can’t find a cause or a proposed solution in it (which would otherwise get in the way of proper ideation).



Market Research

“If I had asked people what they wanted, they would have said a faster horse.”

Problem Statement

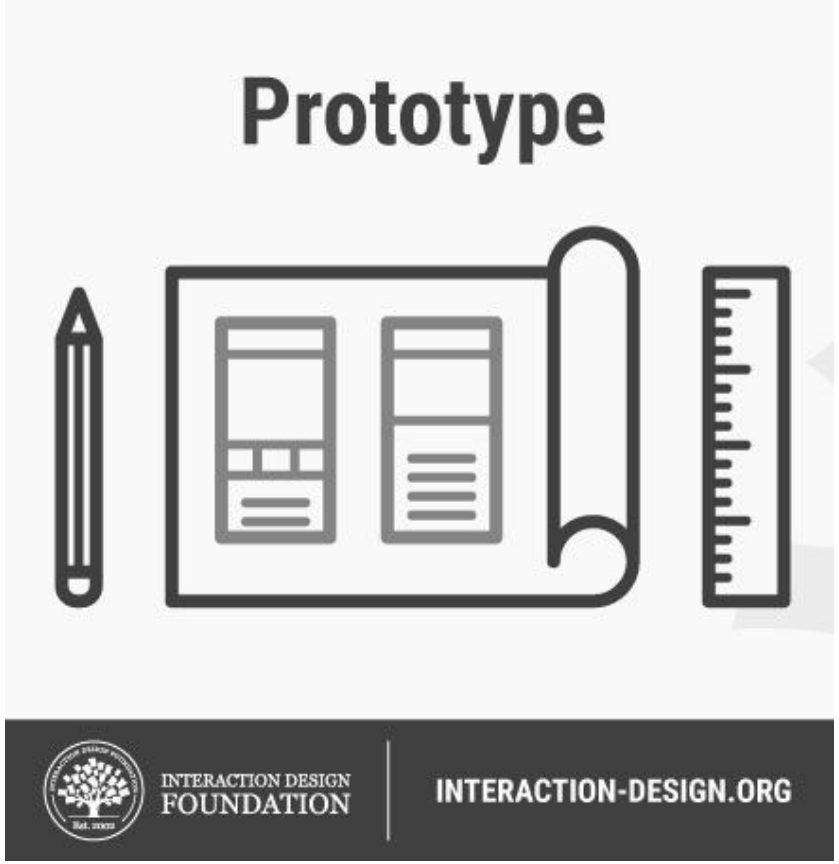
People want to get from one place to another faster

3. Ideate - Challenge Assumptions & Create Ideas

- "think outside the box" to identify innovative new solutions to the problem statement you've created
- Use tools & techniques to generate ideas
    - e.g. Brainstorm, Worst possible idea, Lego serious play
    - Wild ideas can often give rise to creative leaps
- Use other tools to evaluate
    - E.g. Mind-mapping, challenging assumptions
- Test promising ideas before moving to prototype
    - E.g. Focus groups

4. Prototype—Start to Create Solutions

- Simplified **low-fidelity prototype** (parts of) your new product or service
- Share & test prototypes with service users / customers
- Gain a clearer view of how real users would behave, think, and feel when interacting with your product.
- **Aim** - identify best possible solution for each of the problems identified during the first three stages.



5. Test—Try Your Solutions Out

- Create advanced prototype or elements of new product / service
- Testing may redefine one or more problems
- Inform new aspects of user needs e.g.
    - How people think & behave
    - Impact of new product / service
    - Allows further refinement
    - Not always the end of a non-linear process

Ideation & Prototype examples