User-centred design thinking from Smartline

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Collaboration is key

Smartline is a collaborative project led by the **University of Exeter** in partnership with **Coastline Housing**, **Cornwall Council**, **Volunteer Cornwall** and the **South West Academic Health Science Network**

Project aims

- Supporting the development of an innovative eHealth and eWellbeing enterprise sector
- Driving improvements in health and wellbeing outcomes

The Smartline story

Using home sensors and tablet computers Smartline is creating a digitally **connected community** amongst **300** households within Camborne, Pool, Redruth and Illogan.

Community

Enterprises

Smartline is working with Cornish enterprises to **develop** the next generation of smart technology to **improve wellbeing** in the homes of the future, based on the **needs** of the households and the data collected from Smartline participants.

UNIVERSITY OF EXETER

VOLUNTEER CORNWALL

COASTLINE HOUSING

CORNWALL COUNCIL

AIR TEMPERATURE

AIR QUALITY

ELECTRICITY CONSUMPTION

AIR HUMIDITY

GAS CONSUMPTION

WATER CONSUMPTION

Research

Smartline **brings together** an interdisciplinary team of epidemiologists, economists, geographers, mathematicians and sociologists **exploring** the potential for business **innovation** to **improve health and wellbeing.**
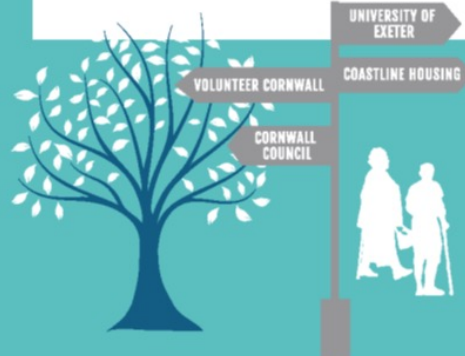
What is user-centred design?

- A methodology that puts the user at the centre of all design decisions.

- You can apply the principles of user-centred design in web design, as well as new products or service development.

Three main principles

1. Focus on user needs, goals and limitations (throughout the design process).

2. Measure and test developed designs with real users.

3. Keep working on it until the product or service meets all of the needs of its users.
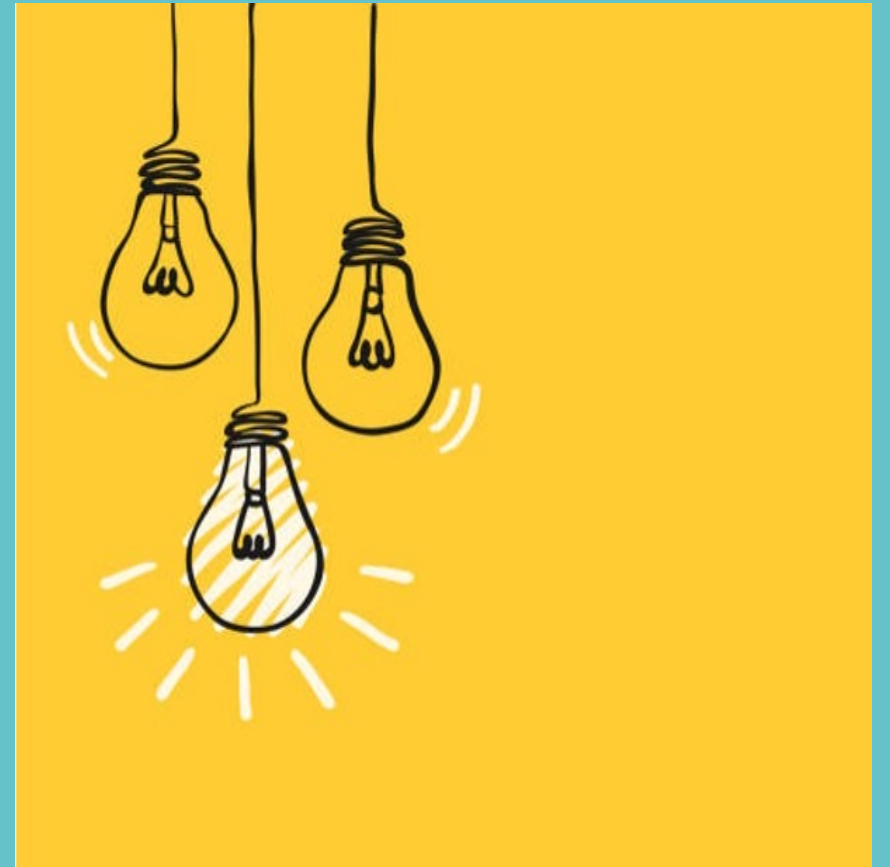
Find the right target users

- It's important to find the right target users of your planned product or service to make sure you can carry out meaningful user-focused research.

- You should engage with these end-users early on and continually throughout your design process.

- You should also:
  - make user-centred design a shared priority for the whole design team;
  - integrate any research findings into the ongoing design work;
  - schedule time for regular feedback to the whole team;
  - utilise user stories, videos, photographs, checklists and catchphrases to make research findings vivid and enduring.
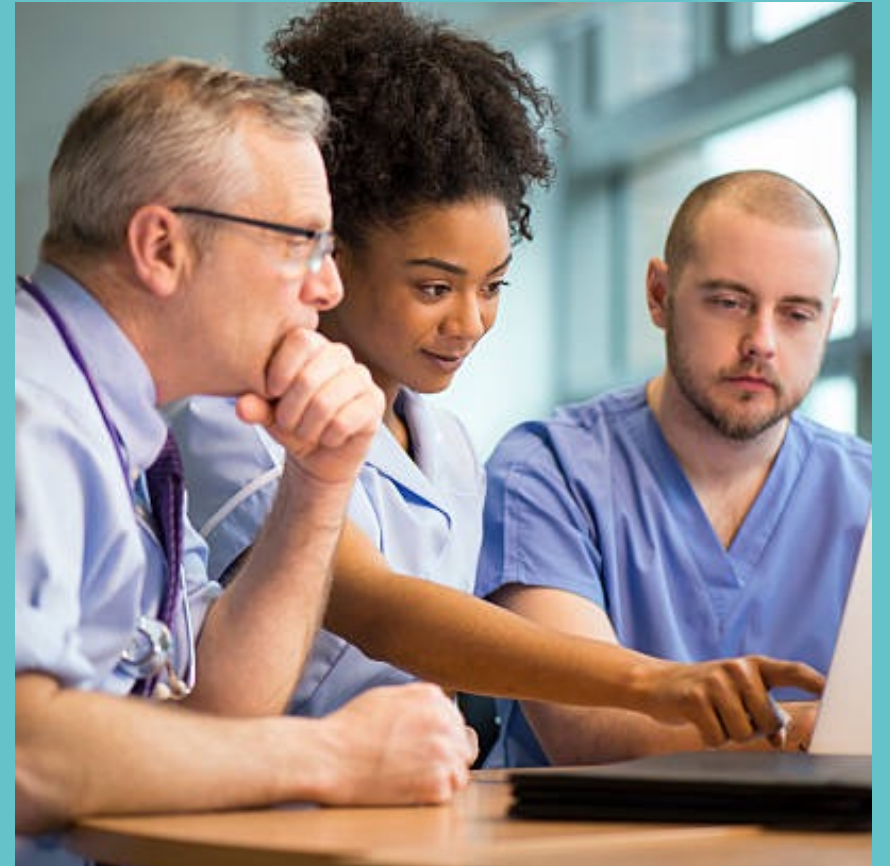
Must have a problem statement

- Do you have a problem statement?
  - This one may seem obvious, but it shouldn't be left out. Don't go any further unless you've already identified the problem you're trying to solve.
- Are you solving a problem for your end-users?
  - Remember, we're talking about how we make the process of developing products centered around humans, so we want to make sure our problems are real problems that our end-users are challenged with.
- Does your problem statement include a solution?
  - While we do want to build products that alleviate some of the biggest pain points for our end-users (and bring them value), we likely don't know at this point exactly how to do that - we just know the pain is there.
  - Instead of focusing on how do I fix the problem, we should instead make sure our problem statements focus on how bad is the problem.

Finally, in funding applications:

- Consider how product or service makes a change, who it makes a change for and who will also benefit…
  - Talk about your ultimate users
  - Explain the challenges they are facing
  - How you have engaged with them
  - How they have engaged with you – on board?
  - What changes you have made
  - It this process iterative and open?
  - How much will it cost to keep adapting as you go
  - Provide evidence that you are jointly solving the challenges faced by your users