

## 2020 student service design challenge

### How can we improve the heart health of people in Europe that are 'invisible', neglected, underserved, forgotten or overlooked?

#### Access to care

There is a lot of evidence that social factors, including education, employment status, income level, gender and ethnicity can strongly indicate how healthy a person is<sup>1</sup>. The lower a person's socio-economic position, the higher the risk of poor health.

A comprehensive national study on mortality and life expectancy conducted between 1987 and 1998 in Denmark, showed that the mortality rate for Danes with no vocational training was almost 80% higher than that of more educated people<sup>2</sup>. Unfavourable living conditions, unhealthy work environments and a much higher mortality rate for long time unemployed people were said to be the cause of this difference.

Similarly, according to findings of the London Health Observatory, when traveling east from Westminster, (away from the city centre) each tube stop represents nearly one year of life expectancy lost.

The overall picture that emerges is that there seems to be a split in society whereby the most disadvantaged (the jobless, homeless, poor, uneducated, etc.) do not receive the health services they require whereas the more advantaged do. In the EU however, one of the defining principles of its health care systems is

equity of access according to need. Which means that no matter who you are or where you come from you deserve to be treated to the same standards as anyone else. So why doesn't this happen in practice?<sup>3</sup>

The challenge encourages you to investigate what causes the varying levels of access to care and how to close the health gap. More specifically, looking at heart health.

#### Living with a healthy heart

The healthiness of your heart can be affected by a whole host of factors, from diet and alcohol intake to, physical activities and blood pressure.<sup>4</sup> Knowing the importance of each and their impact on the heart can already make a huge difference. However with the incidence of heart disease rising, coming up with ways to improve heart health is critical.

Medical problems affecting the heart and blood vessels are still the highest ranking cause of death across Europe today<sup>5</sup>. Even though advances in treatments for heart attacks and stroke and a decline in smoking have already halved the number of people dying from heart disease, declining death rates unfortunately do not go hand in hand with declining morbidity.

Low levels of physical activity combined with high levels of stress and an unhealthy diet are common across Europe and counterbalance most positive developments. As a result millions are at risk of cardiovascular disease but likely don't know it. Public Health England's heart age test<sup>6</sup> revealed that currently four out of five adults have a heart age well above their real age.

<sup>1</sup> <https://www.who.int/hia/evidence/doh/en/> ♣

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3534000/> ♣

<sup>3</sup> <http://www.euro.who.int/en/publications/abstracts/health-equity-status-report-2019> ♣

<sup>4</sup> [https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-\(cvds\)](https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds)) ♣

<sup>5</sup> <http://www.ehnheart.org/cvd-statistics/cvd-statistics-2017.html> ♣

<sup>6</sup> <https://www.gov.uk/government/news/heart-age-test-gives-early-warning-of-heart-attack-and-stroke> ♣

There are already many (digital) tools and services available today that aim to help people live more healthy lives by creating awareness or by supporting lifestyle shifts. Some of which are even free. The problem with most of them however is that they seem to attract audiences which are already engaged in actively managing their health. They often fail to reach the individuals at risk of heart disease who are not engaged. Another problem is that shifting behaviour is just genuinely hard. Even for people who have already been diagnosed with heart issues making the necessary lifestyle adjustments and sticking with them as a form of secondary prevention can be extremely difficult.

This is why we are calling out to you to develop new and original solutions that aim to tackle these or related issues using service design principles and a human-centered approach.

### **Briefing**

Taking a human-centered approach to designing a service, product or product-service combination - a solution to an existing, worrying situation - that attempts to narrow the health gap by improving the heart health of people who are currently 'invisible', underserved or forgotten by healthcare providers and not part of healthcare systems.

The research area covers the whole spectrum of 'living with a healthy heart'. Depending on the situation your research proposal and final concept can focus on different things. It might be about raising awareness or informing people who are unaware of being at risk of heart disease. It could mean helping people who are experiencing heart issues already by assisting in diagnosis or finding the right entry points to the care system. Furthermore, for those already diagnosed with a heart condition it might be helping them improve their condition by enabling lasting lifestyle shifts and adhering to treatment. Or you might consider improving the experience of chronic disease management for heart patients, for example by finding ways to prevent unnecessary check-ups spread across many different healthcare institutions.

Finally, we advise you to also consider that your concept doesn't necessarily have to target only the potential receivers of care; it can also target care givers, relatives, friends or anyone else involved.

### **How to approach the student service design challenge?**

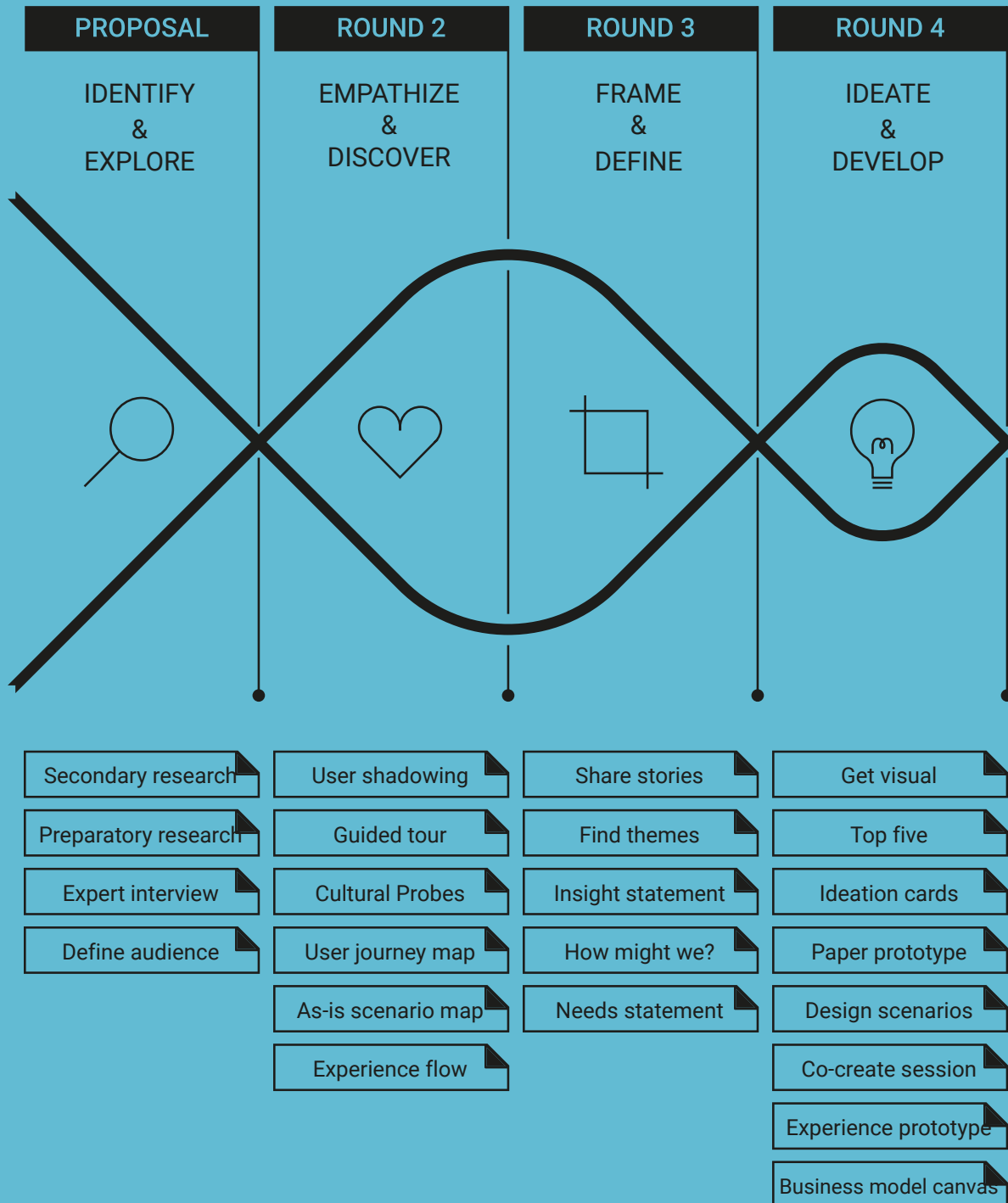
Human-centered design is a creative approach to problem solving that involves real people right from the start and places them at the heart of the design process. By collaborating with the people you're trying to reach, you can innovate with them rather than for them. Empathising with them allows you to develop a clear understanding of their problems, goals, needs, thinking, emotions and behaviour. When designing from this perspective you will more likely end up at new, unexpected and effective solutions to design problems that have a lasting impact and that have the capacity to really improve people's lives.

Ideally, solutions should represent a systems based approach<sup>9</sup>. This means that rather than reacting to problems that an individual might experience in isolation you should look for patterns in how they relate to other people, activities and issues within the wider system. In order to try and address the core of the problem and to make your solutions more widely applicable.

To facilitate this way of working the Student Service Design Challenge is based on design frameworks such as 'cocreate by Philips Experience Design', 'the double diamond', 'design thinking' and 'Enterprise Design Thinking by IBM', and is structured around three main rounds; 'Empathise & Discover', 'Frame & Define' and 'Ideate & Develop', following an initial 'Proposal' round. Each of these rounds has clear objectives and introduces specific tools and techniques that allow you to successfully move on to the next. Every round ends with a submission that needs to be handed in and uploaded for assessment.

In the **Challenge toolbox** you'll find a selection of tools, methods and worksheets to help you on your way. They are organised in such a way that they build on each other. If you work through them one by one, each tool should provide valuable information for the next. The last tool of each round deserves extra attention and should

be worked out for the assessments containing the information from all previous steps. It is important to remember however that these are tools not templates. They can help you tell your story but the goal is to use them critically not simply tick the boxes. Think about how they can help you improve and progress your work.



## 1. PROPOSAL (IDENTIFY & EXPLORE)

This round is about exploring the wider context of the challenge and identifying potential users and problems related to heart health. It involves doing basic, secondary research and looking for inspiration and triggering ideas. These could be technological, behavioural, or cultural. Use the Internet, newspapers, magazines, or journals to know what's happening or talk to local experts. Especially try to find out about recent innovations and potential problems in your particular geographical area. These can be visible problems but also pay attention to hidden problems or even problems that might be ignored or denied. Get the facts and figures you need to understand your challenge. The objective is to write a short design brief and research proposal that explains the problem you would like to solve in detail. Clearly describe and identify the user group and include any evidence that shows how the problem is being faced by them. Make it visual by including photos and video clips demonstrating the problem and the users.

At the end of this round all submissions will be reviewed by the coaching team and a selection of max. 20 groups will be able to go to the next round.

### Tools

- Secondary research
- Preparatory research
- Expert Interview
- Define your audience
- Interview Guide

### Submission

- Video (max. 5 min.) introducing the team, the user group and design brief.
- PDF document (A4, max. 4 pages, English) containing design brief and visual research / background material.
- PDF hero-image (A4, English) demonstrating the problem and the users.

## 2. EMPATHISE & DISCOVER

The goal of this round is to do a deep dive into the problem you are trying to solve by becoming immersed in the world of the people involved, who can be individual care givers, care takers, family members, etc., or several types of stakeholders. Tasks will include meeting and observing those stakeholders as well as designing 'cultural probes' with the objective to gather data, collect insights and gain understanding of the context. Whereby learning to see through the eyes of the the potential users of your to-be-designed solution. This information should be clustered in an experience flow, user journey map or relational map that demonstrates the current situation. When mapping try to also include the important environmental (location, equipment,..), social (family, caregivers,..), organisational and regulatory (regulatory systems, insurances, policies,..) factors.

### Tools

- User Shadowing
- Guided Tour
- Cultural Probes (Gaver, Dunne, Pacenti)
- Probes context mapping
- Ethnography Fieldguide
- User Journey Map
- As-is scenario map
- Experience Flow

### Submission

- Video (max. 5 min.) demonstrating the cultural probes, results and insights.
- PDF document (A4, max. 6 pages, English) containing insights, experience flow and journey- or relational maps / background material.

## 3. FRAME & DEFINE

This step is about synthesising the information from the discovery phase into a problem definition. Framing is a crucial step before

moving on to creating ideas as it reveals new solutions and opportunities. By sharing inspiring stories together the goal is to identify the gaps, challenges and patterns in the maps of the current situation. Translate these into themes. Based on the themes we can then envision and speculate about possible desired futures by asking 'what if' or 'how might we' questions. The objective is to re-write your briefing and research proposal by creating a more focussed challenge- or needs statement.

#### Tools

- Share inspiring stories
- Find Themes
- Create Insight Statements
- How might we?
- Needs statement

#### Submission

- Video (max. 5 min.) demonstrating the overlapping themes, what if questions, and opportunity statement.
- PDF document (A4, max. 4 pages, English) containing themes and opportunity statement.
- PDF hero-image (A4, English) showing what if / opportunity statement.

## 4. IDEATE & DEVELOP

This is your final round! Now everything should come together.

After framing the challenge you can begin to think of solutions about how you can achieve what you have set out to do. The aim here is to diverge before converging. First try and get as many ideas as possible out of your head and onto paper. Draw, sculpt and/or create collages to help visualise your ideas. Optionally you can use aids such as ideation cards to help create a long list of ideas. Next start narrowing down the long list to a short list. Move from a handful of ideas into a fully-fledged concept, that you'll refine. Develop scenarios and storyboards to push forward how the concept would be used. Also think about what parts of the concept you

can quickly test out by rough prototyping them as props or as functional models. Invite the people you are designing for to give feedback. Improve the concept and rough prototypes through iteration and compile the best ideas into an experience prototype for a minimum viable product. Document the user experience in a video.

#### Tools

- Get Visual
- Top Five
- Ideation cards
- Service Flip
- Paper prototyping
- Design Scenarios
- Co-create session
- Experience prototyping
- Business model canvas

#### Submission

- Video overview (max. 10 min.) of the process start to finish. Introducing the team, users, insights and problem definition to reveal the final concept, scenarios and experience prototypes.
- PDF document (A4, max. 4 pages, English) containing 50 word concept description, design scenarios and necessary background information.
- PDF document (A4, 1 page, English) containing worked out business model canvas.
- PDF hero-image (A3, 300dpi, English) showcasing / explaining the final concept. More detailed instructions and/or a format will be provided.

While this sounds very linear in reality it often isn't. It is important to iterate, to fail early and to learn fast. Keep observing your users even after the 'Empathise & Discover' round is over to verify your hypothesis and to get feedback on your prototypes. Take time to reflect while making to quickly adopt your approach on new learnings. Make as often as you can to get alignment in the team and to give form to your insights and ideas. Iterate as fast as you can to come to a solid understanding quickly.

## Video submission tips

You'll have noticed that video is an important part of the submission process. Films that highlight insights and the design process are of great value to the jury, coaches and others.

**IMPORTANT:** Make sure to capture the lives and stories of the people you are designing for, the problem and the process of solving it. Each round has specific requirements and focal points for the film, and combined they should provide a clear documented overview of the project, your work and the concept. The final film should introduce your team, the users, insights and a problem definition before revealing the final concept. Make sure to use appropriate credits. Although slightly different in scope, [Fixperts-films](#)<sup>9</sup> can provide a welcome source of inspiration.

It's probably a good idea to make one team member responsible for documentation, this way you can more easily ensure an even quality throughout. You can get creative editing the film by including text overlays, music (only use rights free music), sound effects and animations, for example.

If you don't have access to film editing or animation software or you don't know how to operate them, an alternative could be use powerpoint or keynote to make playable slideshows with optional voice-overs.

## Coaching

The coaching team consists of a main coach and assessment coaches. The main coach will virtually meet with each team every other week to have a tutorial, starting from the second round. During tutorials you will present the work that has been done and the coach will give feedback as well as advice about methodologies to be used and on upcoming work that needs to be done. Before the calls the main coach will send out an invitation to sign up to a particular time slot to allow scheduling your time effectively.

At the end of round 1, 2 and 3 each team will have an 'assessment meeting', virtually or physically, whereby an assessment coaching team will check the progress to see if all the criteria have been met and all activities are completed. We call those meetings 'Design Critiques'. Depending on your location you are able to have a face-to-face Design Critique or virtually, with the use of WebEx. The experts of the coaching team will also advise and give feedback on how to proceed during the following round.

## Assessment areas

Submissions will be assessed on five areas:

- 1. People centric**  
The idea is based on real people's needs. The solution you design works for real people who are (un)aware of their health issues.
- 2. Society oriented**  
The idea sees into the inclusive conception of design in which user groups who are marginalised are taken into account.
- 3. Technology driven**  
The idea is data-driven and future-ready for the ever-changing technological landscape. It proves an impactful user experience.
- 4. Circular & sustainable**  
The idea supports sustainable and [circular innovation](#)<sup>9</sup> by favouring ethical behaviour as well as empowering users.
- 5. Business viable**  
The idea is based on a service-centered business model, able to launch as a viable service business and value proposition as well as scalable.

## Key dates

Round 1, Research proposal and design brief

- Brief available: Monday January 6
- You will have until Friday January 31 to submit your research proposal.

Round 2, Empathise and discover

- Start: February 17
- You will have until Friday March 20 to submit your video and document.

Round 3, Frame and define

- Start: March 23
- You will have until Friday April 10 to submit your video and documents.

Round 4, Ideate and develop

- Start: April 13
- You will have until Friday May 22 to submit your video overview and documents.

Round 5, Jury voting and winner announcement

- The Jury Voting takes place between May 23 and June 5.
- Winners will be notified on June 6 at the latest.

## Partner information

This challenge is initiated by Philips Experience Design and co-organised with SERVICE DESIGN DAYS, in partnership with IBM and the Ellen MacArthur Foundation (EMF).

[Philips Experience Design](#)® brings human-centered innovation to the technologies we all rely on for healthcare and healthy living. The products, services and solutions we design, touch the lives of millions every day and are recognised for excellence within the industry.

[SERVICE DESIGN DAYS](#)® is a cross-disciplinary platform for change makers, influencers, and decision makers of small and large organisations, involved in product and service innovation, organisation transformation, and value creation through design.

[IBM](#)® has always served as a medium between mankind and machine, blending science, service and society to pave a path towards progress.

The [Ellen MacArthur Foundation \(EMF\)](#)® works to inspire a generation to re-think, re-design and build a positive future circular economy. The Foundation works with business, government and academia to build a framework for an economy that is restorative and regenerative by design.

## People and planet

We would like to encourage you to take a people- and planet-centered approach. For this we have added two more websites to inspire you:

- [Circular Design Guide](#)®
- [Planet Centered Toolkit](#)®

If you like to, join the [Circular Design Guide LinkedIn community](#)®. Share your project, ask questions and exchange ideas with the rest of the circular design community.