

DESIGNING FOR HEALTHY SELF-REFLECTION ON COGNITIVE DATA IN THE CONTEXT OF BURNOUT

Background

Burnout is an emerging mental problem among people who deal with high level of stress on a daily basis. Individuals with burnout often experience cognitive challenges in general performance or the excessive effort to perform certain tasks. With increasing work pace through the years, on average over 10% of the workers in Europe and over 17% in non-European countries had burnout experience up until 2018 (Schaufeli, 2018).

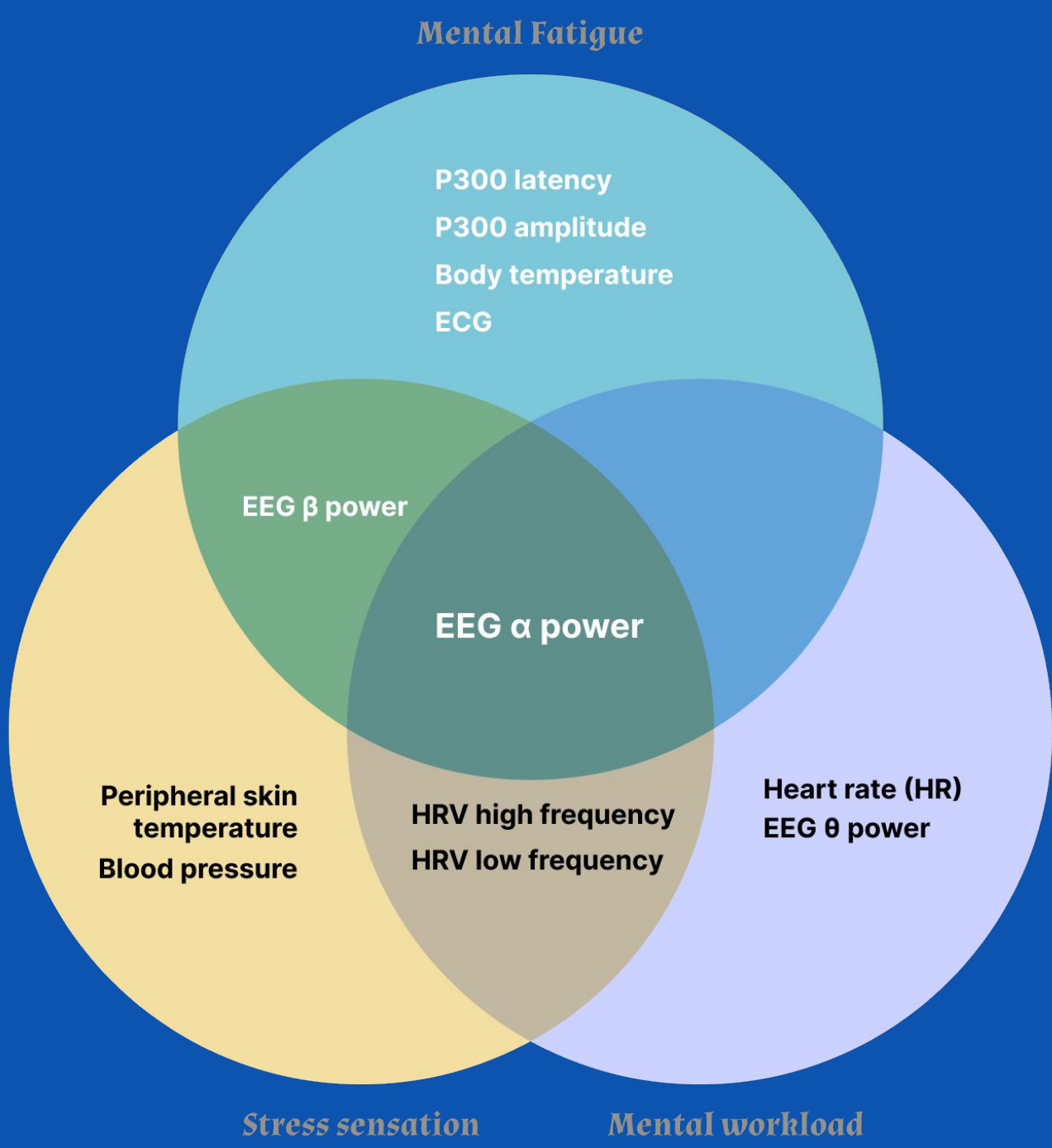
The advancing cognitive personal informatics (CPI) technology has made it possible to monitor psychophysiological data and quantify human cognition and cognitive activities. The quantified human cognition-related data could be of great value to people who wish to be more aware of their condition or needs and refer to this information in reflective activities to become a better version of themselves.

Research questions

- RQ1. What constitutes a comprehensive understanding of burnout?**
1.1 How does burnout influence people's life at different development stage?
1.2 What are the common approaches to intervene burnout?
1.3 How is burnout measured?
1.4 What is the relationship between burnout and human cognitive correlates?

- RQ2. What do people need to effectively intervene burnout episodes?**
2.1 What is the general experience of people dealing with burnout?
2.2 What are the key qualities should an effective burnout intervention have?

- RQ3. How to give CPI technology meaning in designing burnout solution?**



Snapshot of cognitive burnout correlates

These correlates suggest burnout severity from different angles. They can be quickly gathered by CPI devices.

Methodology

Adapted double diamond method

“How to make use of CPI systems to support people in signaling burnout early symptoms on regular basis?”

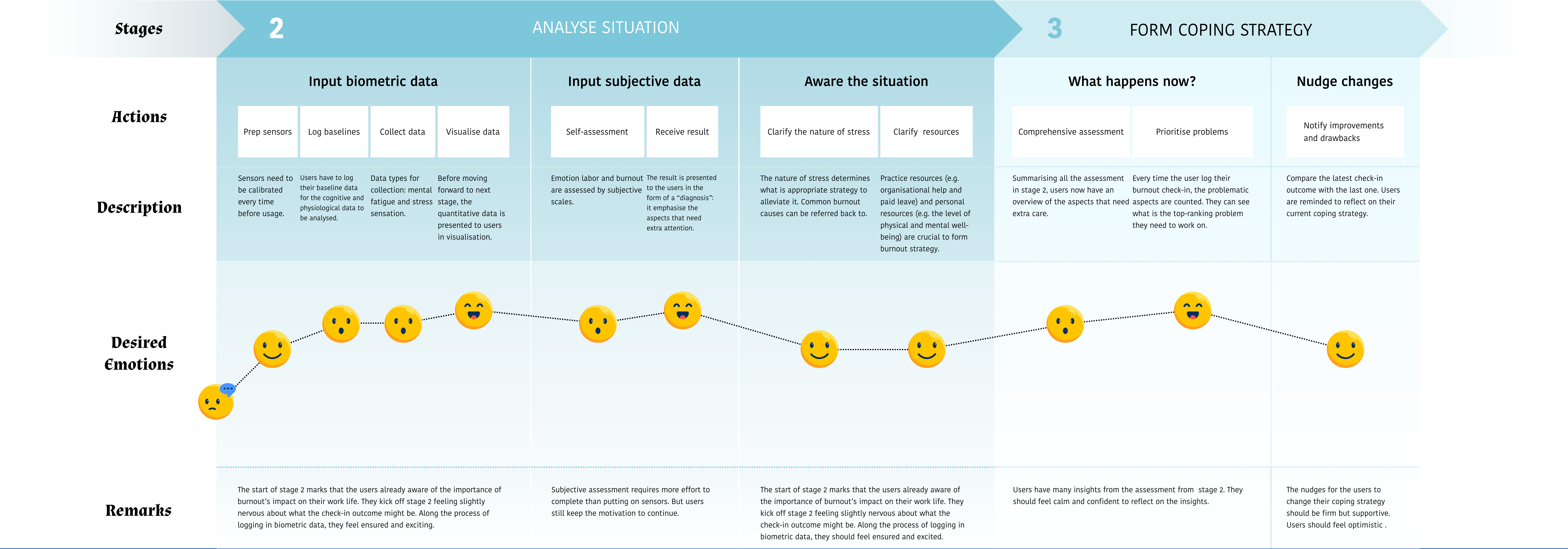
INTERACTION LEVEL	PERSONAL GROWTH	TECHNOLOGY LEVEL	COMMUNITY LEVEL	SERVICE ECOSYSTEM
1 (The design should) allow users to early identify the burnout progress.	4 (The design should) flatten the learning curve for first-time users who have no experience in CPI products.	6 (The design should) involve CPI technology as a supportive role.	5 (The design should) contain community features that facilitate collective insights, awareness, and support.	10 (The design should) provide service for users with different experience level of burnout.
2 (The design should) teach users how to figure out a suitable coping mechanism to burnout.	5 (The design should) provide programmes for users to choose for the best fit.	7 (The design should) make quantified data easy to understand.	9 (The design should) facilitate collective intelligence.	11 (The design should) be trustworthy.
3 (The design should) be in an easily accessible form to users to get accustomed to use it on regular basis.				12 (The design should) have a human touch.
				13 (The design should) allow users to help it be iterated.

Final design criteria generated from background research and participatory design research activities

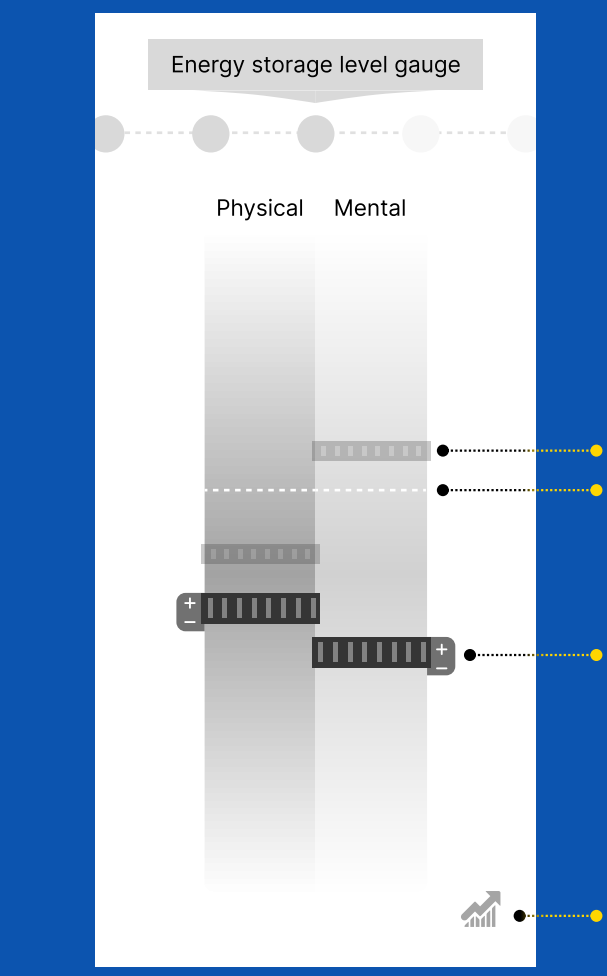
Design criteria

User journey map

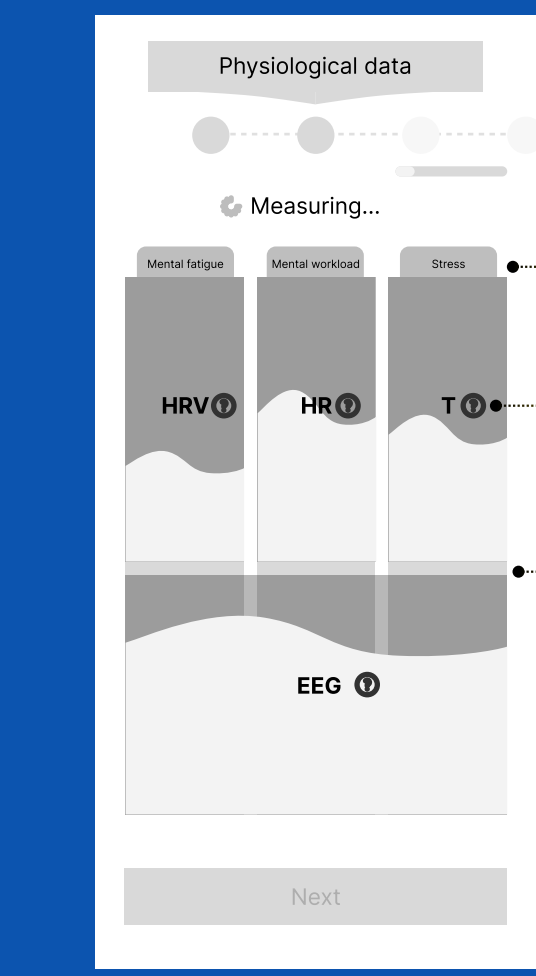
The concept takes a supportive role in user's burnout recovery journey. CPI technology and self-reflection nudges work together to help users adjust their burnout coping mechanism.



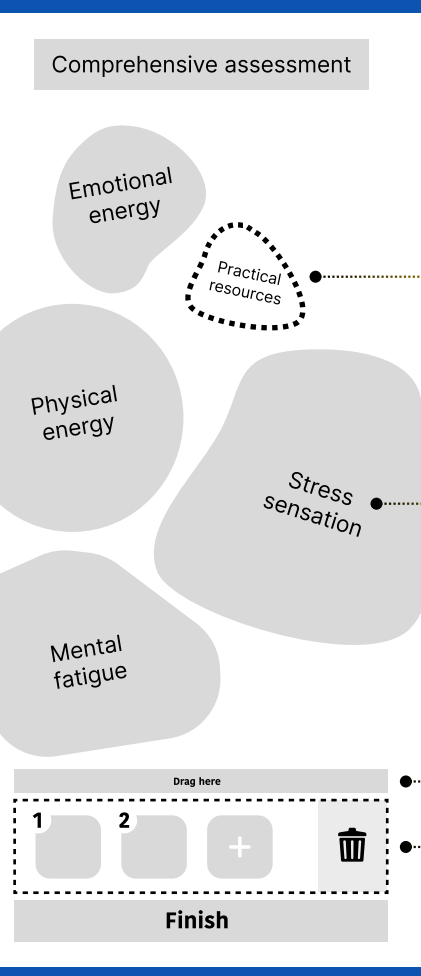
Physical and mental resource logging page



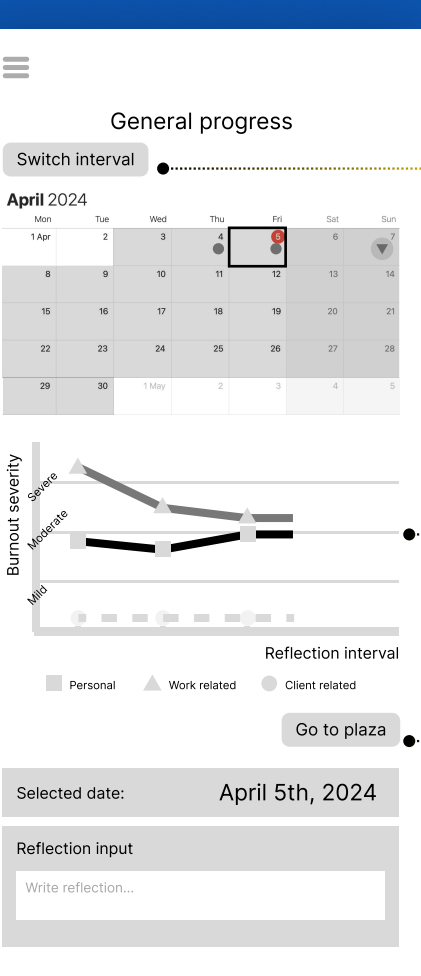
Sensor collecting physiological data page



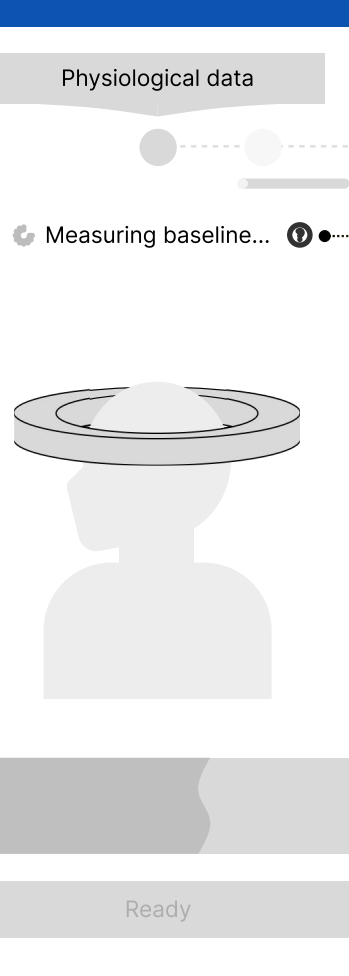
Comprehensive assessment page



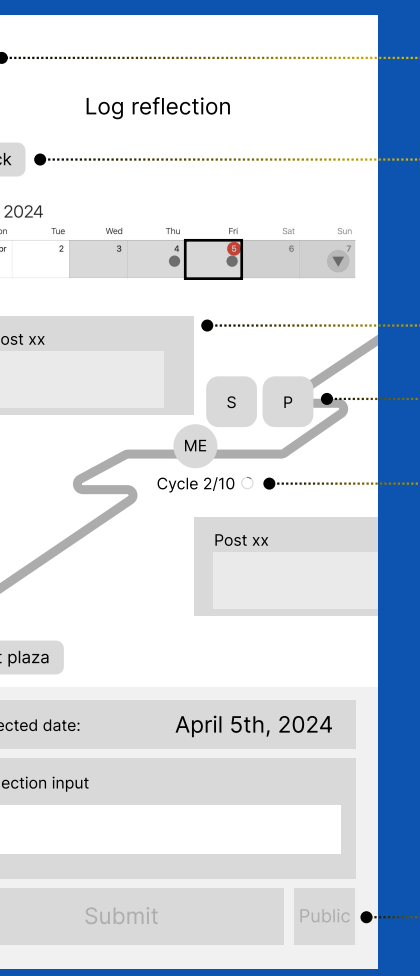
Nudge changes page



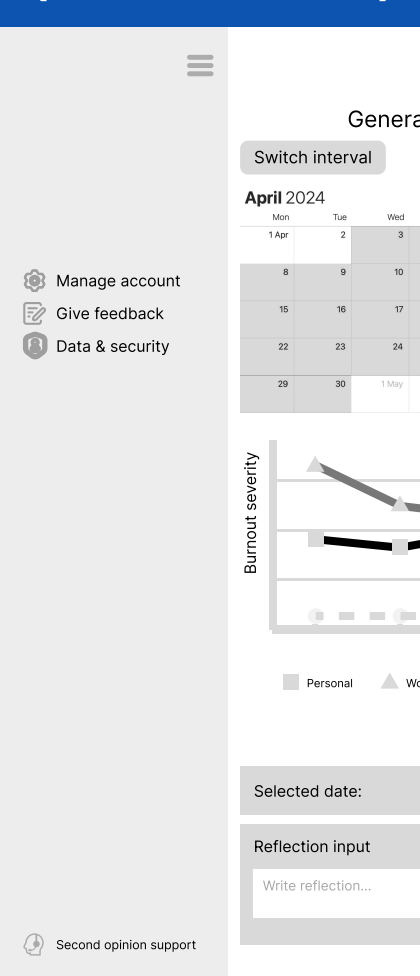
Baseline page



Log reflection page



Log reflection page (hamburger menu)



Interaction vision

Reliable.
The standardised procedure and predictability of the scanning machines and protocols.

Anchoring.
Security checks makes travel by air unique from all other transportation methods. Some of the passenger's memories are anchored to the security checks.

Human touch.
The airport staff is always there when the belt shows error.

Flexible.
When passengers carry liquid or wear boots, the security check procedure adapts to it.

