

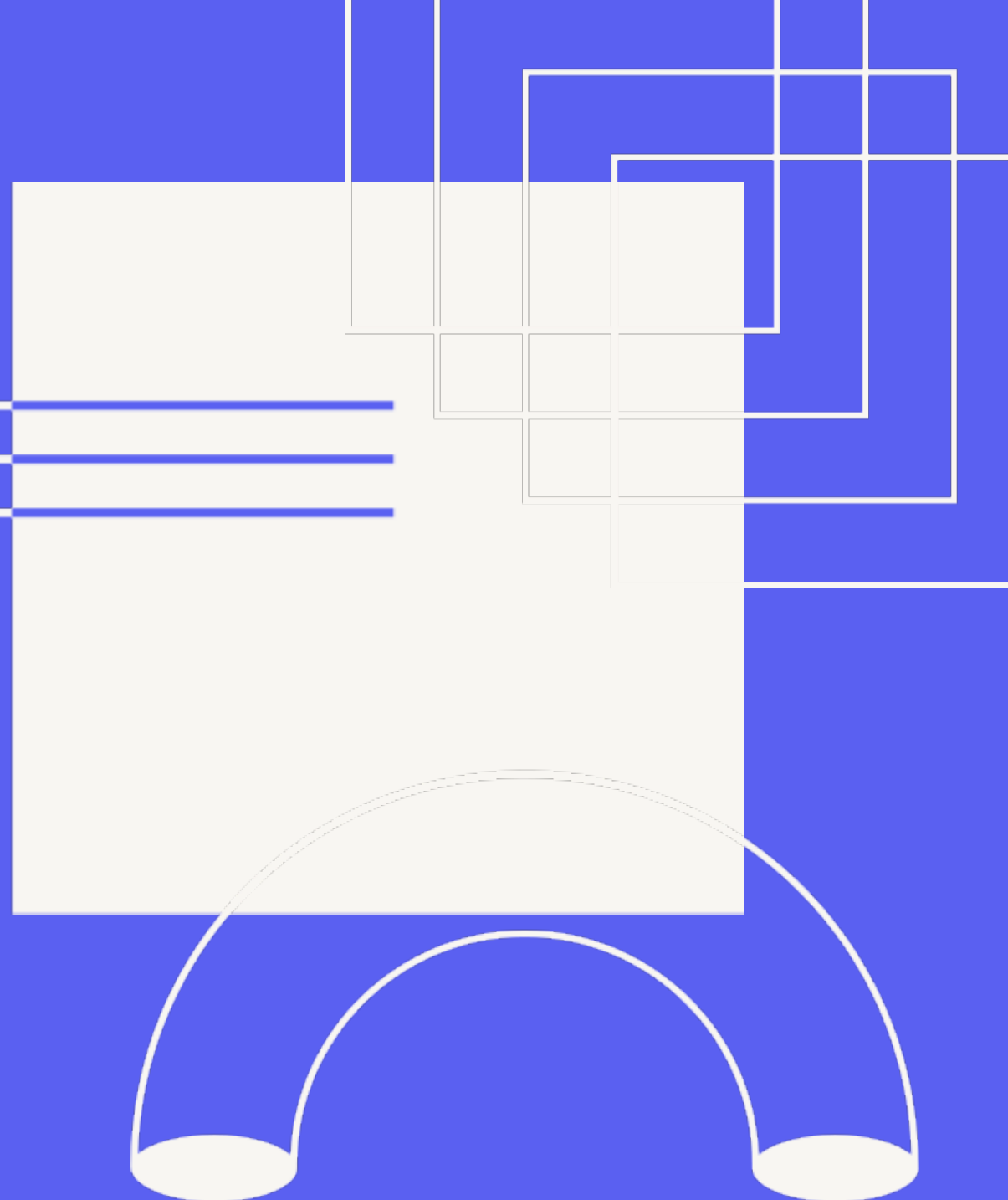
COMLAB x SDA-NOW

**HEROS ON A
SUSTAINABLE
DEVELOPMENT
JOURNEY**

Consultancy Report

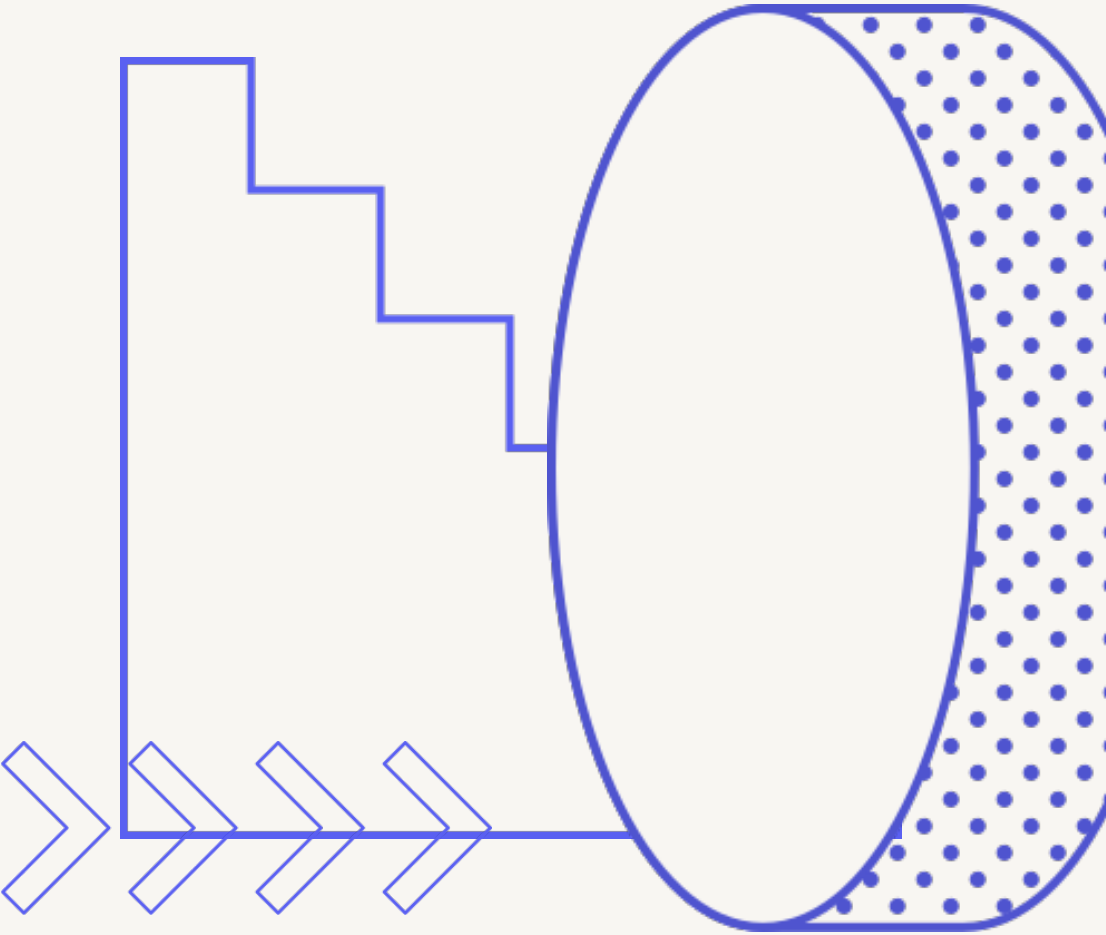
**Tessa Pang
Helge Moes
Felix Merkel
Paulina Ley
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15.12.2022



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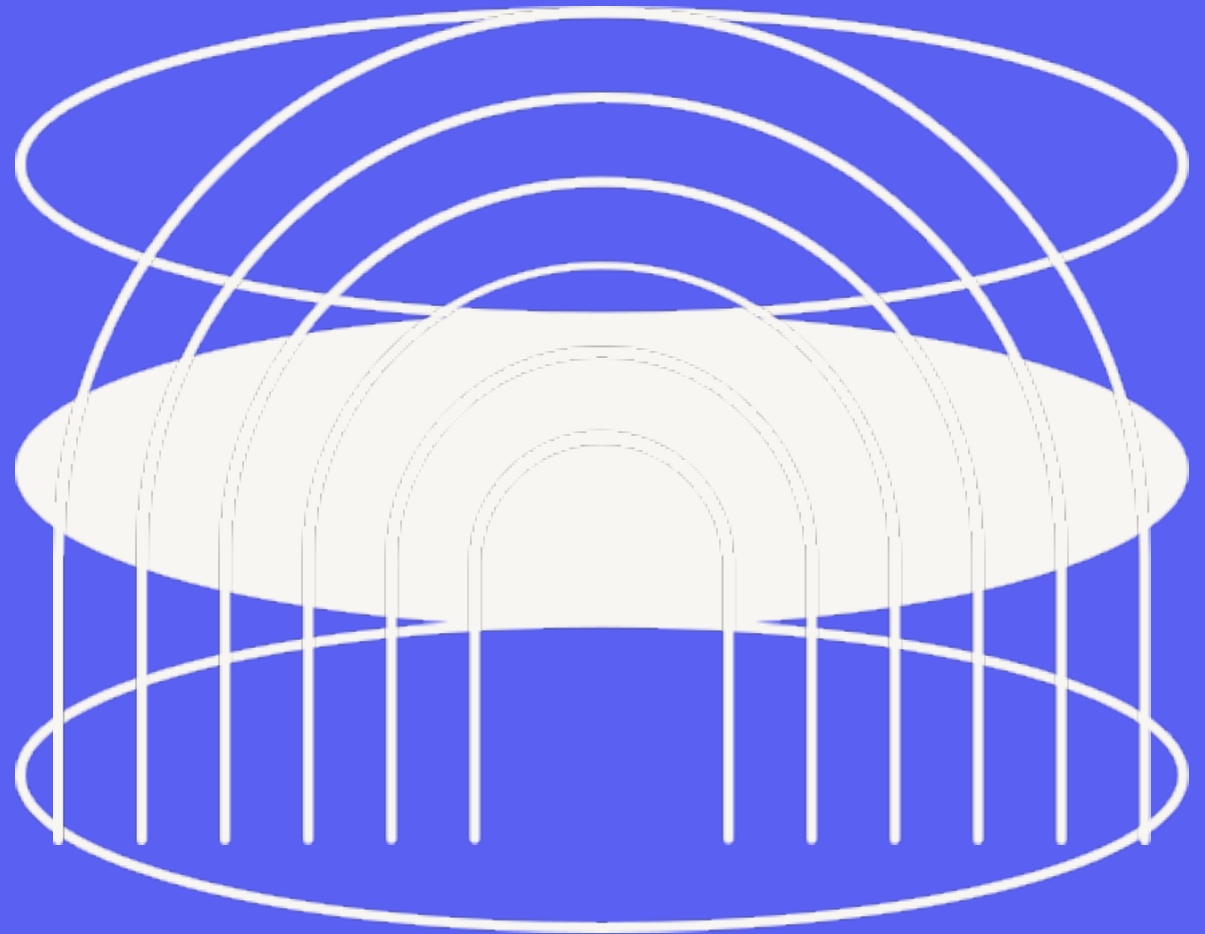


Summary

The Hero's Journey is a game on the SDA-NOW platform that encourages players to increase their knowledge of the **Sustainable Development Goals (SDGs)** and therefore create long-term sustainable **behavioural change**. Based on insights from literature reviews, data collection, interviews with field experts and the target audience this report covers a prototype of game design improvements created by ComLab.

The prototype is aimed at improving the game experience for **emerging adults (18 to 29) in the AgriFood Sector**. The desired outcome is to sustain motivation to play the game and therefore to drive a shift to increase sustainable behaviour in the long-term. The main recommendations for the prototype consist of, firstly, the implementation of **user-centred game design** based on player types when creating game elements. This means we customise the game to the individual preferences of the players and therefore guarantee the best possible game experience. Secondly, the implementation of game design that is **reward-based**, including points, badges, trophies, leaderboard and share-ability. Thirdly, the visualisation of real-world impact that the player can make by engaging in *The Hero's Journey*. These features enhance the player's experience and make it more likely for them to shift their behaviour and become more sustainable in the long-term.

Introduction

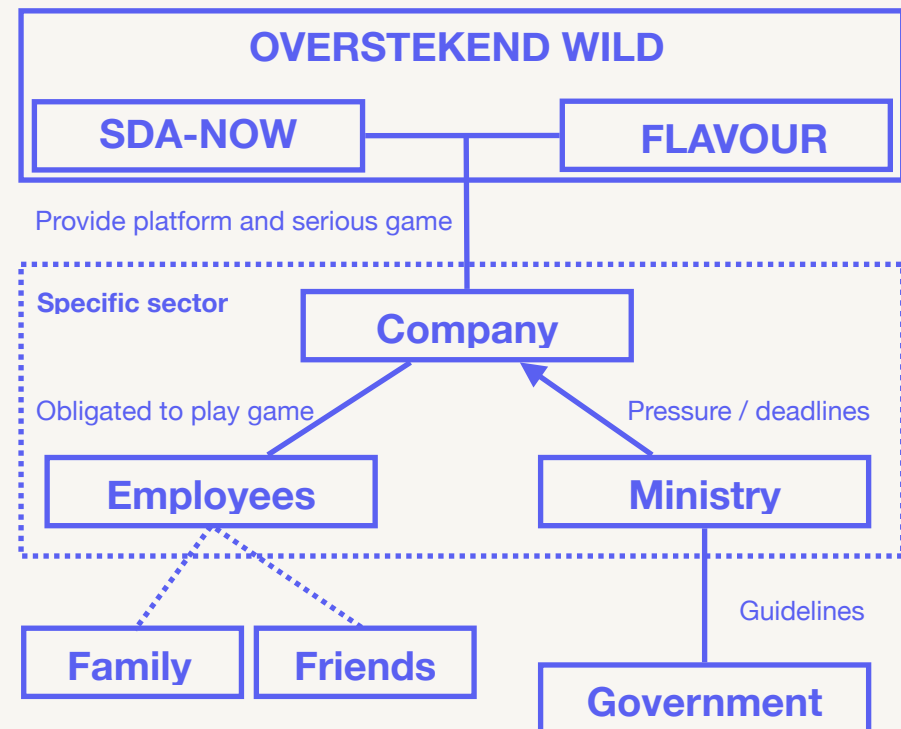


The Company

SDA-NOW has developed an applied game - The Hero's Journey. The game seeks to encourage employees to implement SDGs into their lives by making sustainable behaviour change engaging and fun. The intention of SDA-NOW is to sell the applied game to companies, which are interested in implementing sustainable practices in their work environment. Our client **has raised several issues** which they want solved, due to time constraints and limited resources we focused on two:

1. How can SDA-NOW improve the applied game The Hero's Journey?
2. How can The Hero's Journey reach and activate the right target groups?

We created an actors map to understand which stakeholders influenced our target audience. This helped us to decide on which sector to select.




The Target Audience

We narrowed our focus to a single target audience, one that is already “technologically savvy¹” and therefore are most likely to have their long-term sustainable behaviour impacted by gamification. After consultation with SDA-NOW, we agreed that this project should focus on **emerging adults (age 18-29)**. In addition to this, we chose to improve the game design for companies **in the Agri & Food sector** because they are the largest sector in The Netherlands and their workplace goals are most aligned with sustainability. Yet our goal is to create a replicable game design that could engage this audience within other sectors as well.

Young adults aged from 18 to 30 are an interesting cohort with regard to their views on sustainability. They often feel moral responsibility to take care of the planet, but also to them their individual actions don't seem to have an effect in the bigger context². emerging adulthood is the age of identity seeking, instability and self-focus³. Helping young employees feel like they can influence the world for the better now and making sustainability a part of their identity can encourage them to prioritise it throughout their lives. Luckily, gamification, when done correctly, can be both engaging and efficient at producing behaviour change among this cohort⁴.

On the next slide is a visualisation of our target audience.

Key Persona



Goals:

- **Make an impact for a Better future**
- **safe life for future family**
- **Self-focus**

Values:

- #sustainability
- #family
- #personalgrowth
- #self-reliance


Motivation:

- **Raising a child in a world with bees**
- **mainly intrinsic**

Karen-Helga van de Brug



— **Thinks** about if her actions actually have impact

Sees weather and climate change



Hears catastrophes caused by climate change

Says & does ride her bike when it's not raining







Is happy about **things** seem like they are getting better

Wishes for **a tool that helps her educate herself**

Is afraid of **nothing**, she likes new challenges

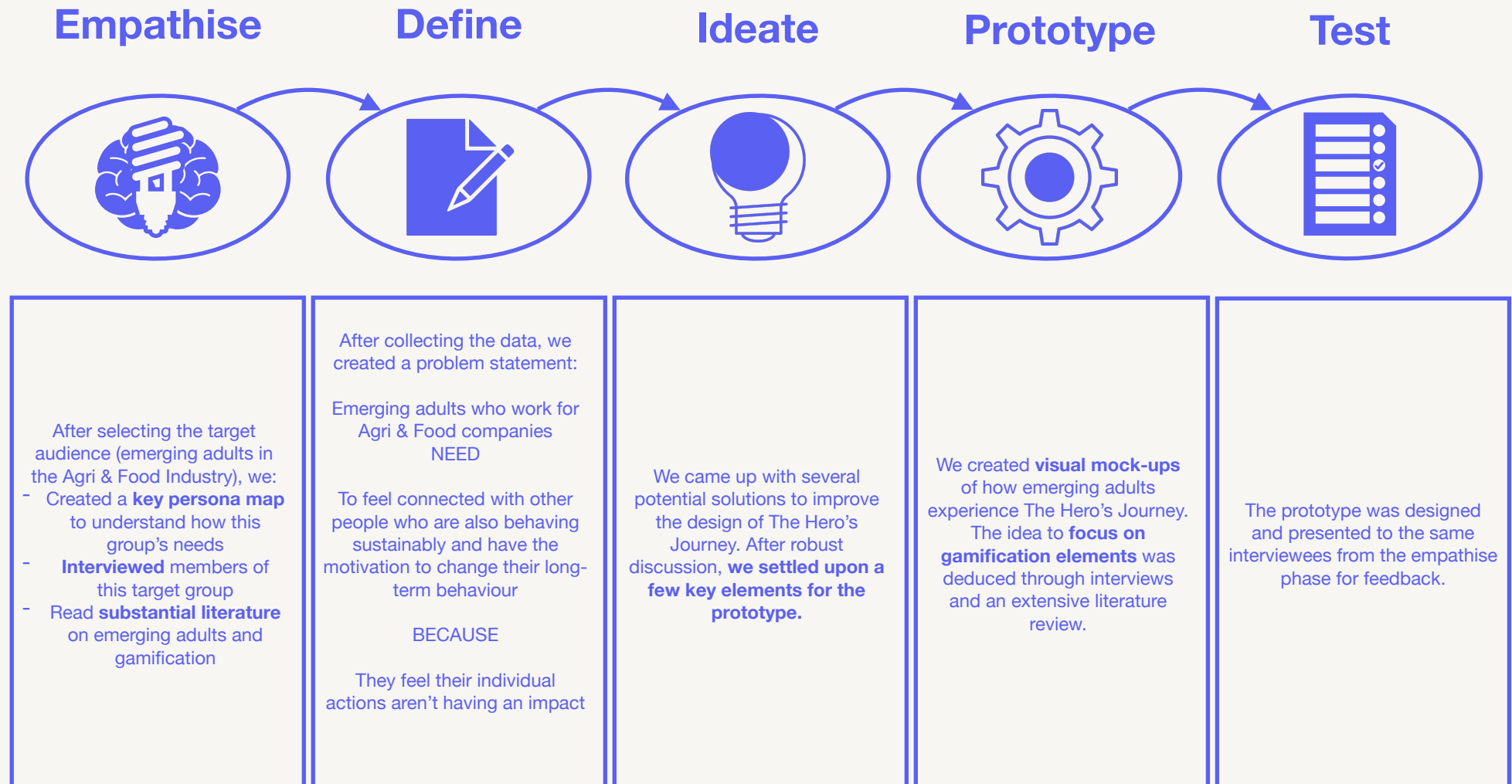
Is angry about **how** there are less bees and seasons are changing

Profession: Project Manager	Age: 29	Origin: Dutch	Status: In a relationship
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Approach

To create a game that engages and inspires young adults we used design thinking methodology.



Limitations

The project had several limitations that, if alleviated, would have allowed to provide more accurate recommendations:

Short-time span making long-term behaviour hard to test

Due to the short-time frame to complete the project, we couldn't test whether the updated game would actually lead to the intended behavioural change. Therefore, we had to base our prototype around what would increase interviewees motivation, which literature shows is an indicator for long-term behavioural change⁵.

Open ended interviews allowed us to inquire about participant needs, goals and intentions.

While we obtained valuable information, self-reports aren't equal to observation of how young adults would use the game and whether the game would change their behaviour in the long-term.

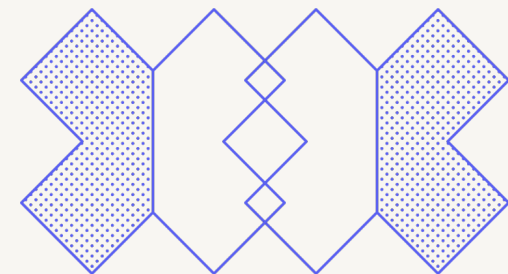
Resources for creating a testable prototype

To accurately test our recommendations we would have preferred to alter the game itself and let our target market play it. Creating a prototype was not within our team's technical wheelhouse.

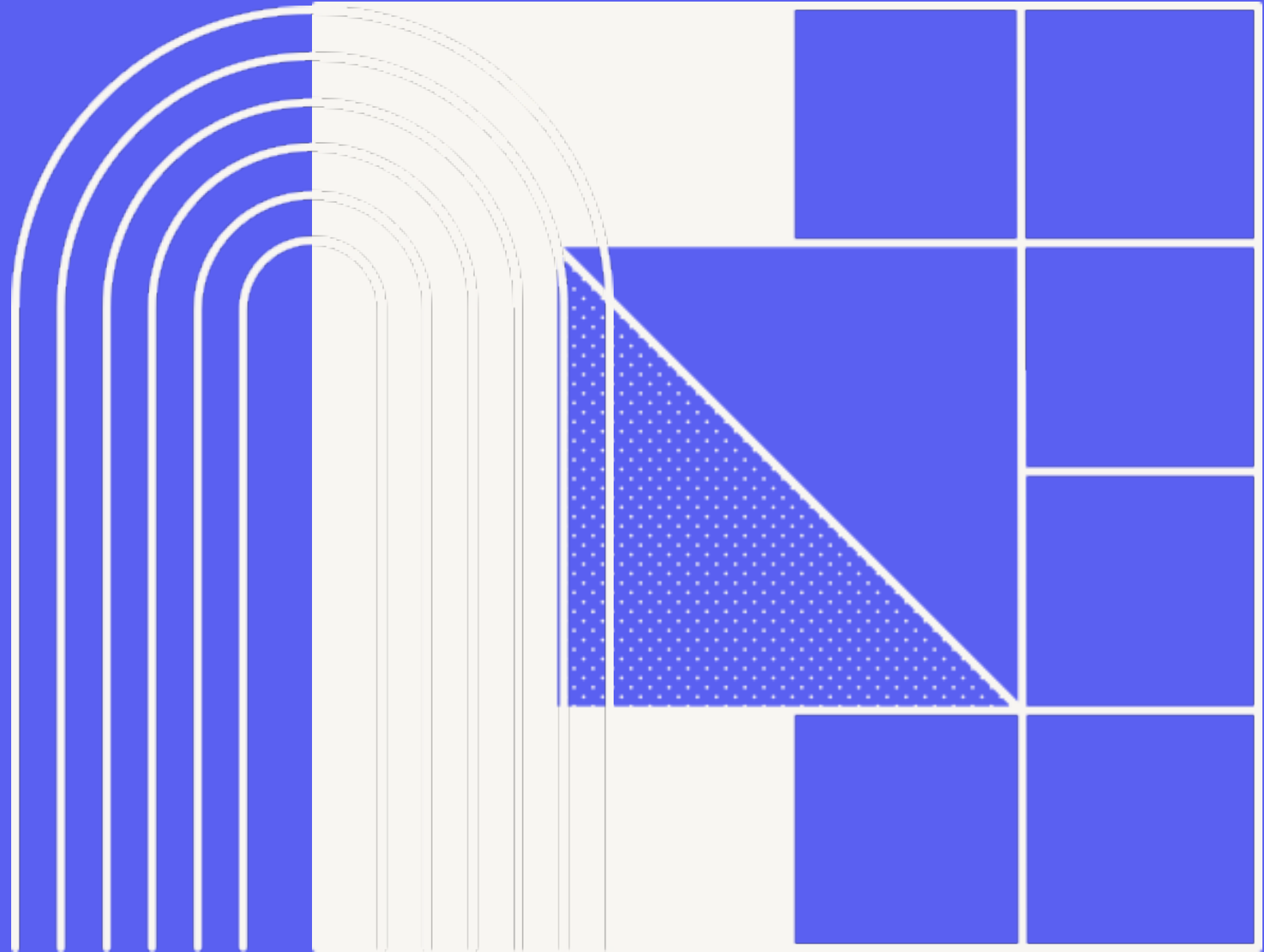
Therefore, we had to rely on an open interview design which employed visualisations to gather participant observations which is not as accurate as observing the target audience playing the actual game.

Could only pick two goals

SDA-NOW had more issues for which they would have liked to gain recommendations. Due to time and resource constraints we had to focus on two problems which we evaluated would make the most impact for the company's goals.



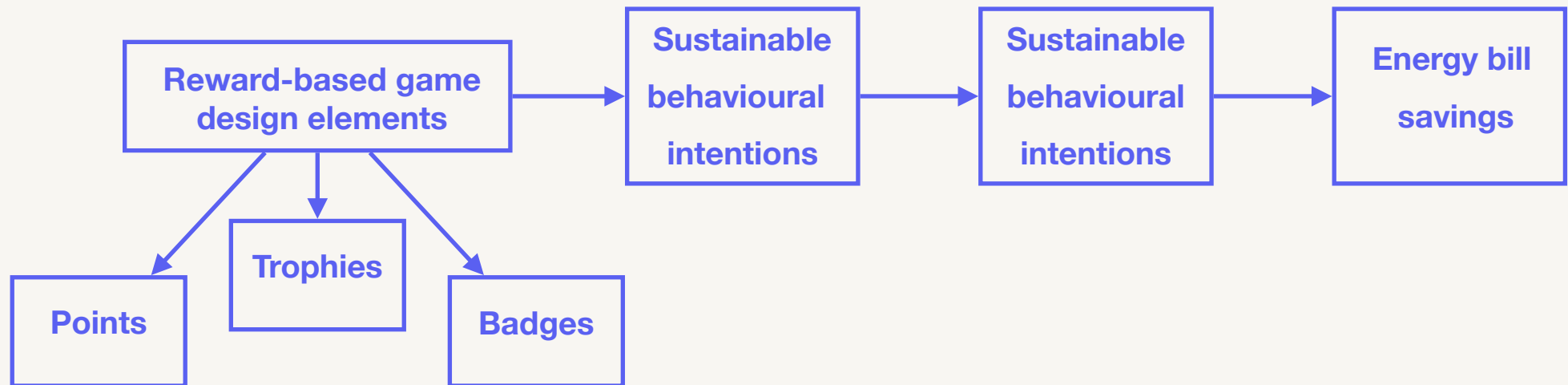
Findings



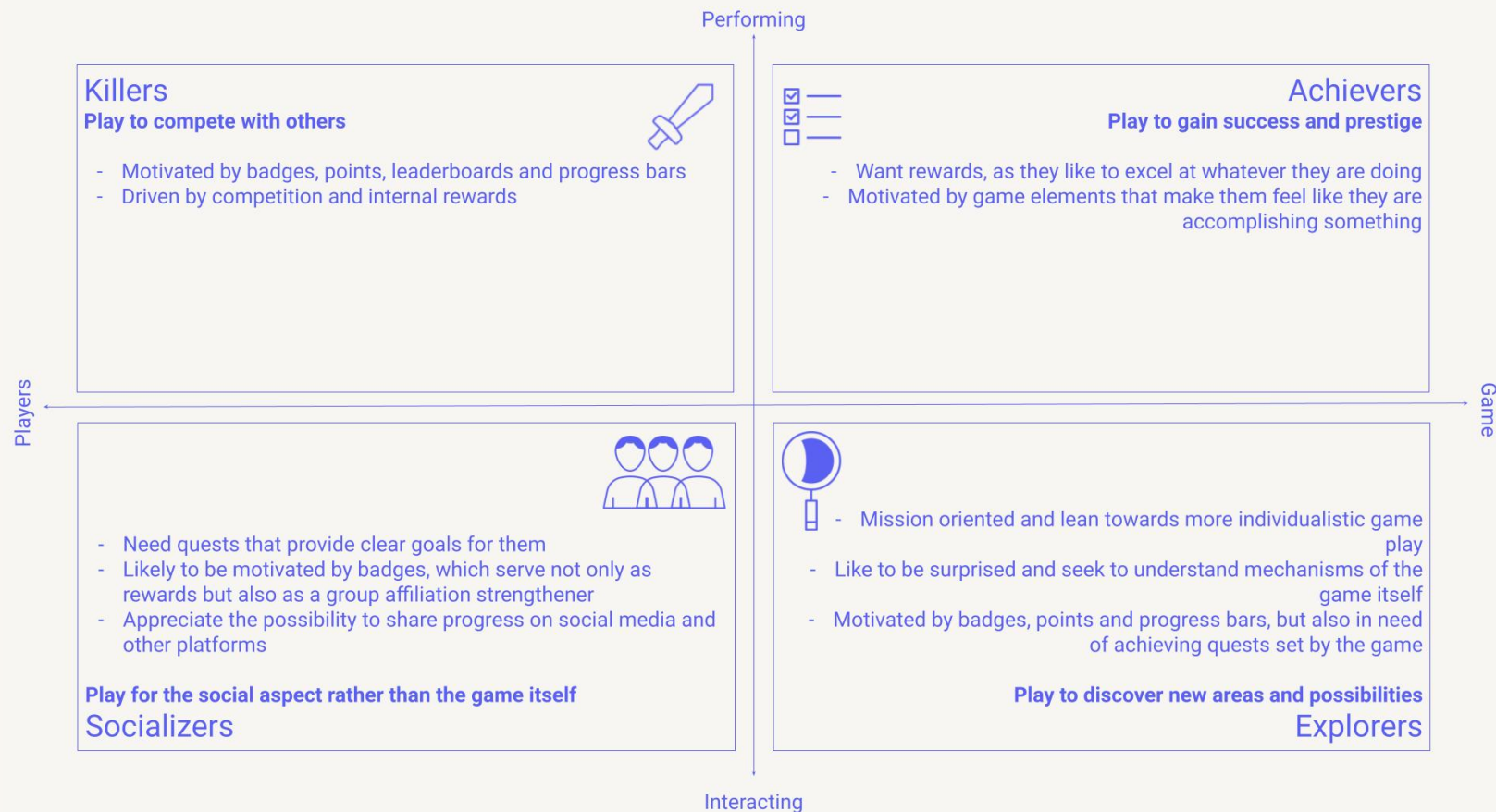
To best understand how to create a prototype to improve the design of the Hero's Journey, based on the two-folded needs of SDA-NOW (outlined above), we conducted research of existing literature and interviews. We will first present findings from the empathise phase, and then from the prototype testing phase.

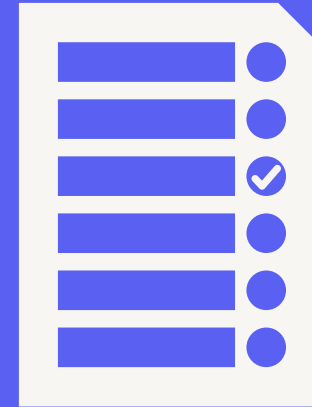
Academic Research

The literature shows the importance of including reward-based elements in the game design because they can have the most impact on sustainable behaviour intentions and therefore sustainable behaviour habits, as demonstrated in the figure below⁶.



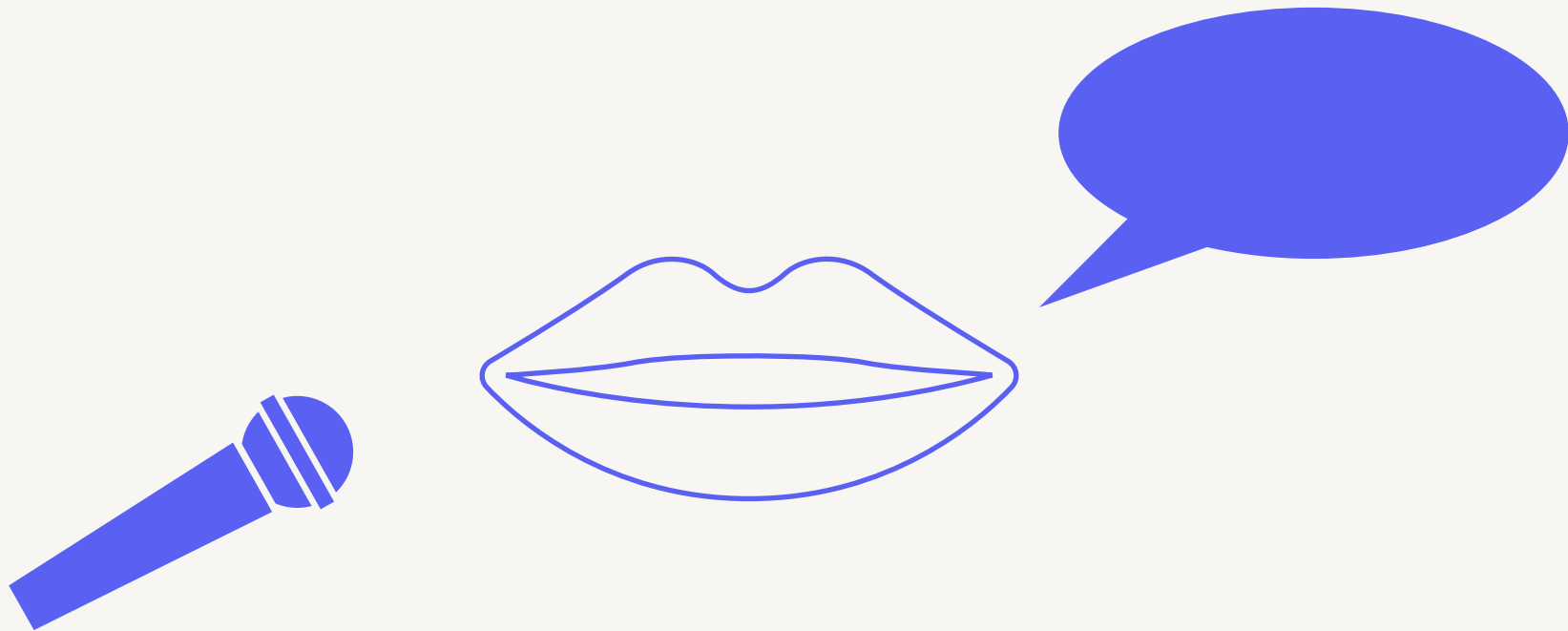
The research also highlighted the need for game design to be user-centred. In this case **User-Centred Design** is “a multidisciplinary design approach based on the active involvement of users to improve the understanding of user and task requirements, and the iteration of design and evaluation”⁷. The literature broadly outlines four player-types: Killers, Achievers, Socialisers and Explorers⁸.





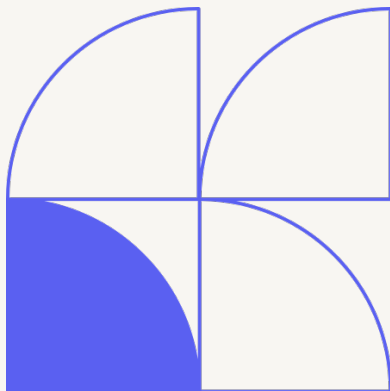
Interviews

The question still remained of how to apply this theoretical knowledge to The Hero's Journey. We conducted four interviews to understand each interviewees' player type and their gaming preferences. Three were conducted with emerging adults employed in various sectors in The Netherlands, and one with a farmer in the Agri-Food industry. The interviews led to three important findings for the prototype design.

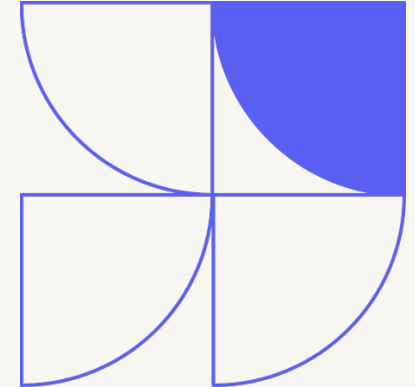


Firstly, interview participants highlighted the importance of seeing the real-world impact of actions taken in the game, so they knew they were making a difference. Through the interviews, it became apparent that emerging adults felt their current attempts at sustainability were disconnected from having real-world impact.

“I try to limit my plastic waste (e.g. bring a tote bag to the grocery store) but sometimes I don’t see the point when there’s just so much waste in the world by big companies.”

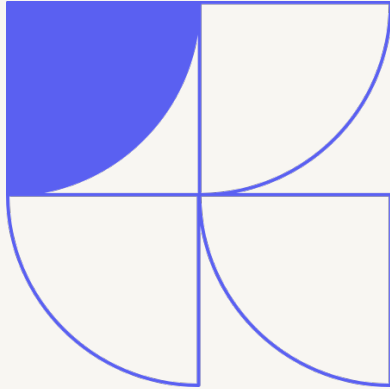


Findings



Our empathise phase showed emerging adults are seeking a mechanism that could connect their individual actions to a broader community-

connected sustainable mission. The Hero’s Journey is well-placed to fill this gap as it connects players to offline sustainable actions. The results of the interviews show there should also be a component of the online game that can inform participants of the real-world impact they made.

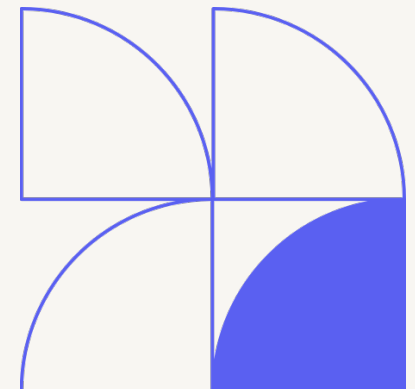


Secondly, interviewees corroborated the findings from the scientific literature with regard to the importance of reward-based mechanisms. They spoke about the importance of game internal rewards.

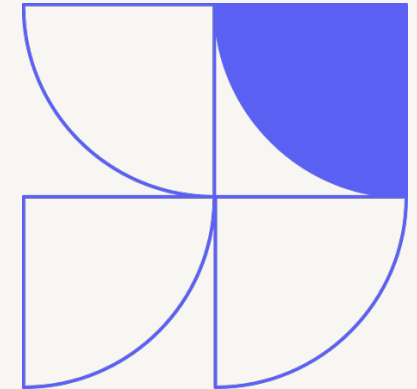
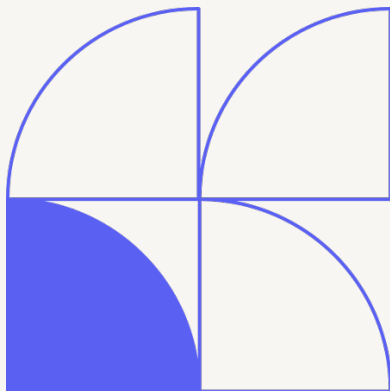
They also highlighted the importance of external rewards either on social media or through the company.

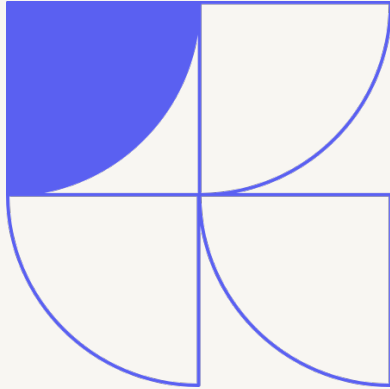
“Having something I could put on my CV or LinkedIn would be a meaningful outcome for me.”

“It would be nice to have a reward for coming first.”
“Having rankings based on points could help me to stay motivated.”
“A leaderboard would be fun to see how everyone’s doing in comparison to each other.”



Through conducting the interviews, we found differences between the interviewees' preferences for the type of reward-based mechanisms. For example, some interviewed stated points and a leaderboard would make them feel more motivated to play, while others said it wasn't important for them. We found these discrepancies could be explained by the different player types of the interviewees, as outlined in the introduction⁹. This points to the importance of the design being user-centred and based heavily on the gaming preferences of the individual. Luckily, The Hero's Journey is highly adaptable, and already has a pre-test to determine the players' interests and knowledge of the SDGs, therefore this additional element on gaming preferences could be easily added.

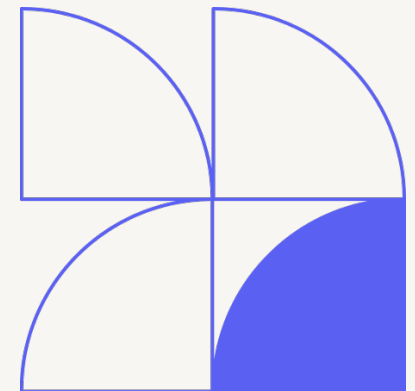




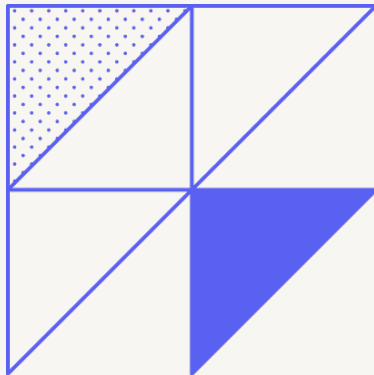
This was also supported by the findings in the literature on emerging adults, which showed this group often uses entertainment products such as games to construct their identity¹⁰. Therefore a social media element of The Hero's Journey would help emerging adults to utilise the platform as part of their identity formation as sustainable people.

“I’d be motivated to keep playing the game if I see it’s a trend catching on on social media.”

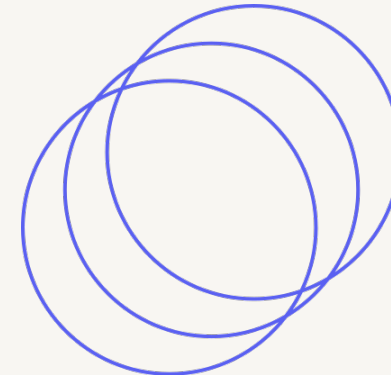
Finally, the interviewees pointed to the importance of community validation of the game, for example on social media.



After analysing the interviews, we reflected on how the findings could be applied to the SDA-NOW platform to lead to long-term structural change in sustainable behaviour. Also bringing in findings from the literature on gamification, we brainstormed various options to edit the game design of The Hero's Journey to be better suited to motivating emerging adults in the Agri-Food industry in changing their long-term behaviour.

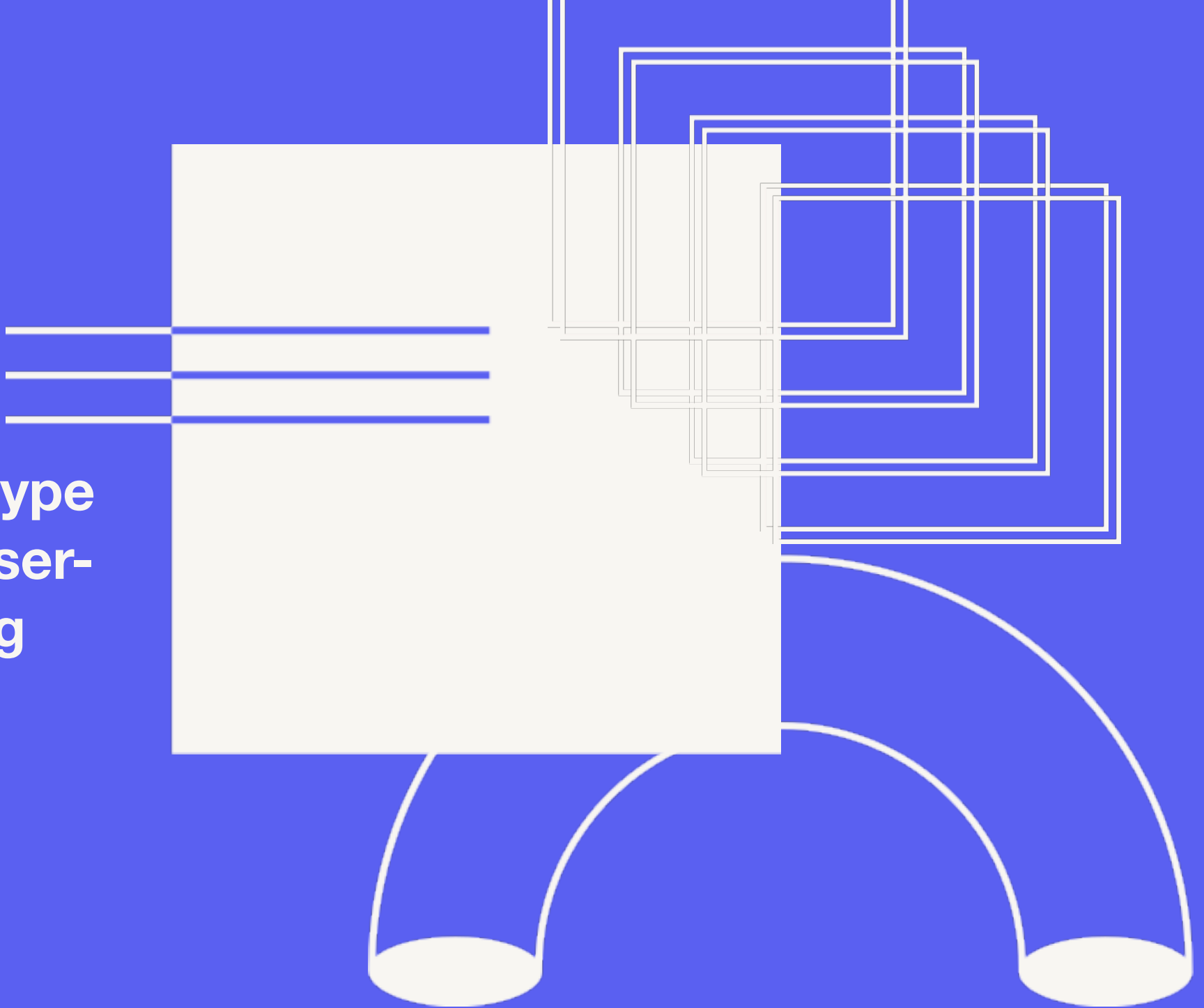


We concluded that the prototype should include the real-world impact the user was making, rewards-based design elements, including points, trophies and badges and user-centred designed based on player types. We then used Canva to create a series of images to mock up how the game would look and presented them back to the interviewees from the empathise phase to seek feedback on the prototype.

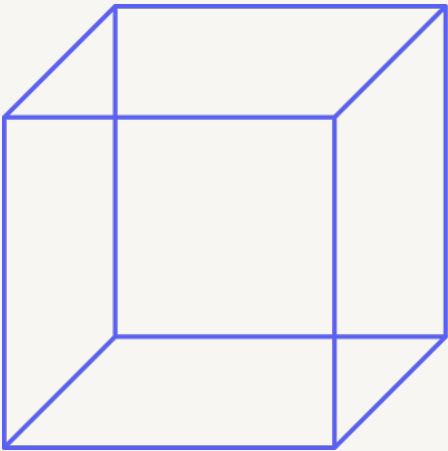
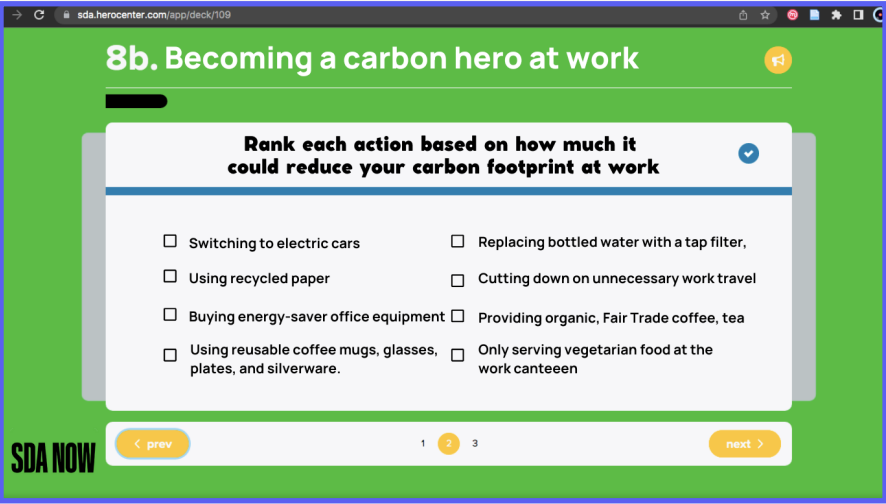


The next section presents the prototype design, as well as the reflections of the interviewees.

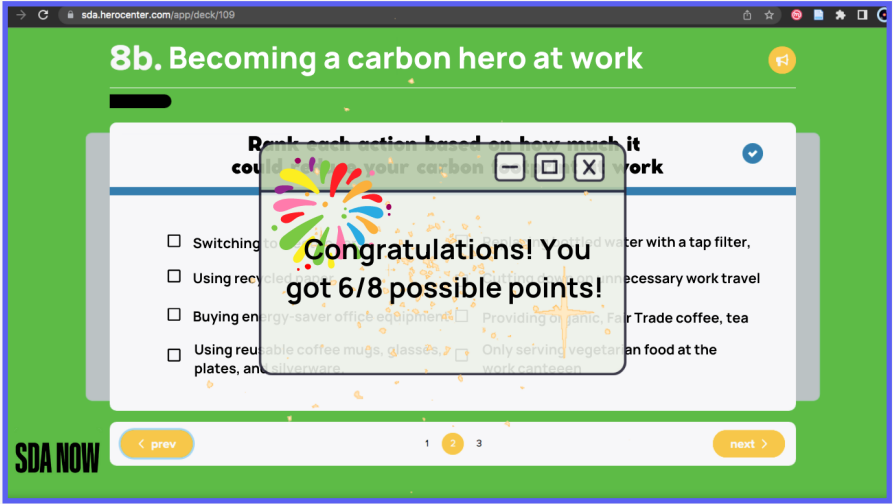
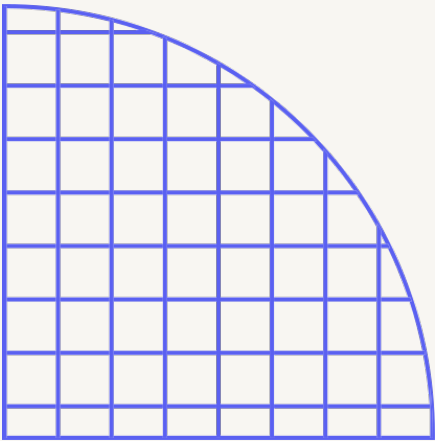
Prototype and User- Testing

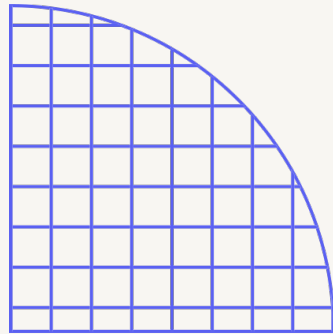


We first showed the interviewee an example question from the game that we created.

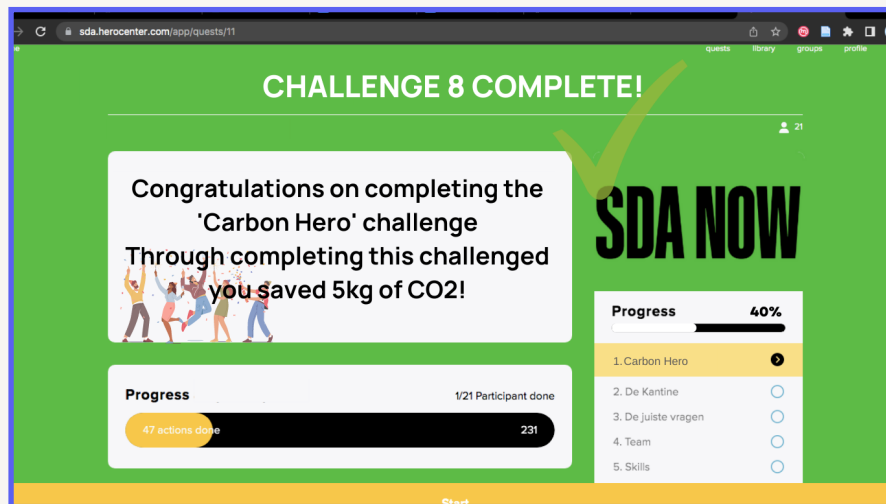
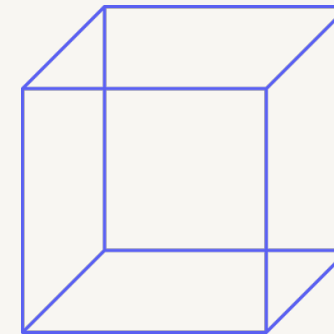


We then showed the points the player could earn from each correct answer.

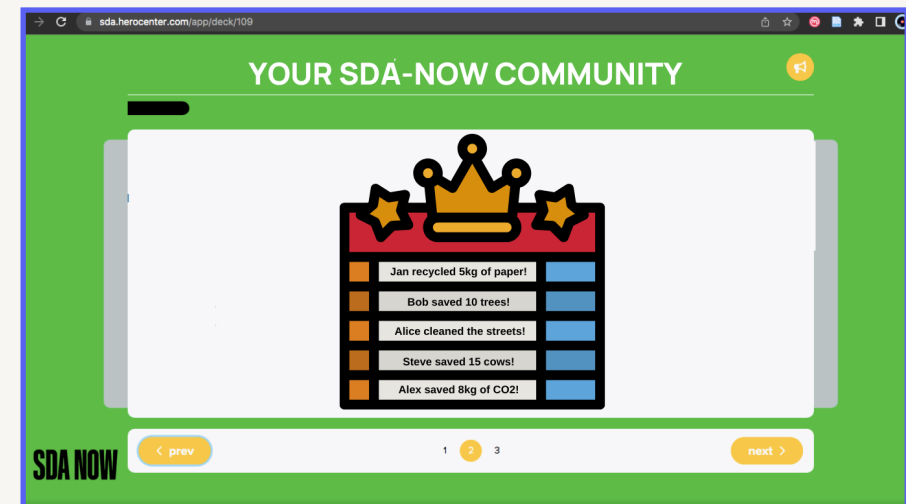


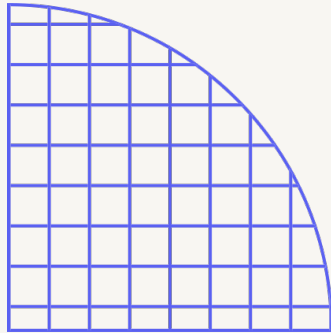


And gave examples of the reward-based elements they could receive based on their player type. For example, if they were a socialiser they can see their progress in comparison to their community's.

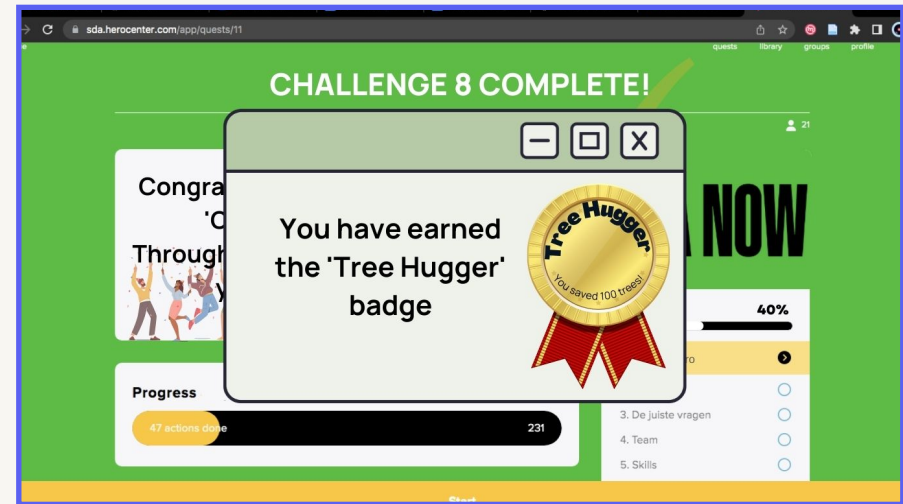
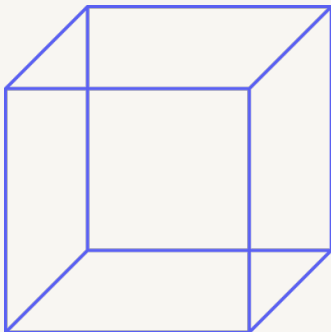


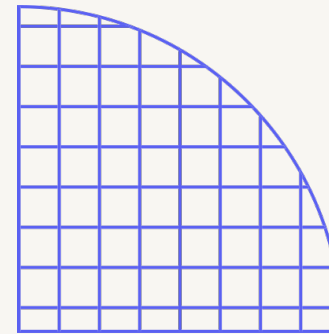
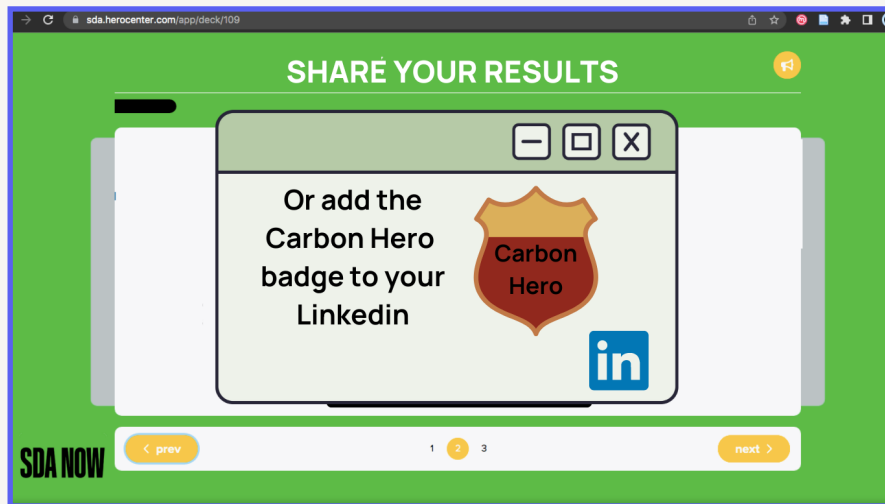
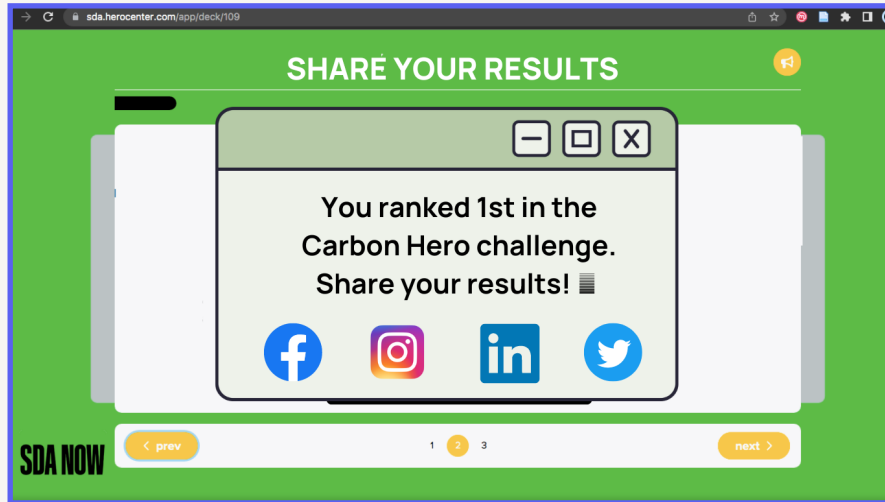
We demonstrated the real-world impact players could have after completing the action offline.



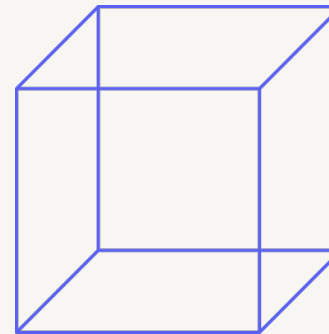


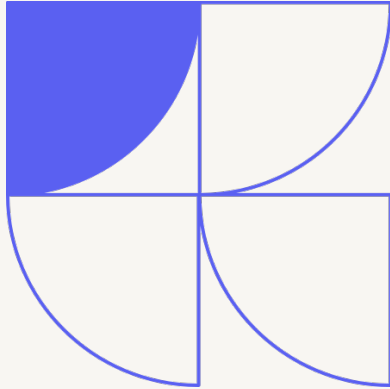
For example, achievers or killers could earn rewards such as badges, and trophies.





And finally we demonstrated how they could share their results on social media, or earn a badge on LinkedIn.

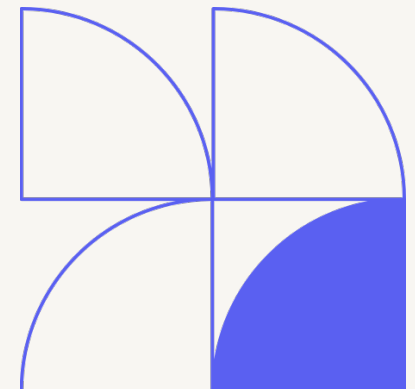




“If I knew I was getting points from it, I might be encouraged to try a little harder to get the questions right. If I was consistently performing well, I’d feel more motivated to keep playing.”

The interviewees agreed that the rewards-based mechanisms in the game would help them to stay motivated and therefore was an indicator that behaviour could change long-term. They liked the fact that the rewards were tiered which gave them something to work for.

“This would make me feel good as I’m being rewarded for the correct answer, and playing a game. Winning always makes me feel good.”



→ ↻ sda.herocenter.com/app/deck/109

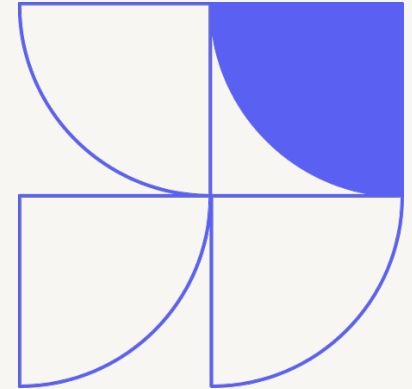
What's your player type?

Check the boxes of the statements you most agree with

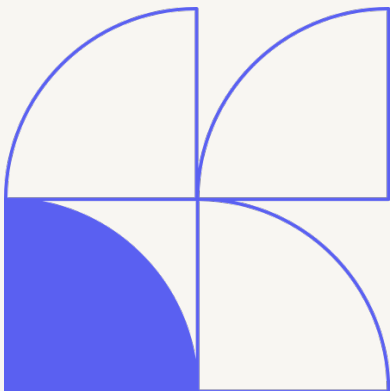
<input type="checkbox"/> I like being part of a team	<input type="checkbox"/> It is difficult for me to let go of a problem before I have found a solution
<input type="checkbox"/> It is important to me to follow my own path.	<input type="checkbox"/> Interacting with others is important to me
<input type="checkbox"/> I enjoy group activities	<input type="checkbox"/> Rewards are a great way to motivate me
<input type="checkbox"/> It is important to me to always carry out my tasks completely	<input type="checkbox"/> Return of investment is important to me
<input type="checkbox"/> I like mastering difficult tasks	<input type="checkbox"/> If the reward is enough I will put in the effort.
<input type="checkbox"/> I like overcoming obstacles.	<input type="checkbox"/> I like sharing my knowledge
<input type="checkbox"/> I like to try new things.	<input type="checkbox"/> It is important to me to feel like I am part of a community.
<input type="checkbox"/> I often let my curiosity guide me.	<input type="checkbox"/> I like competitions where a prize can be won.

SDA NOW

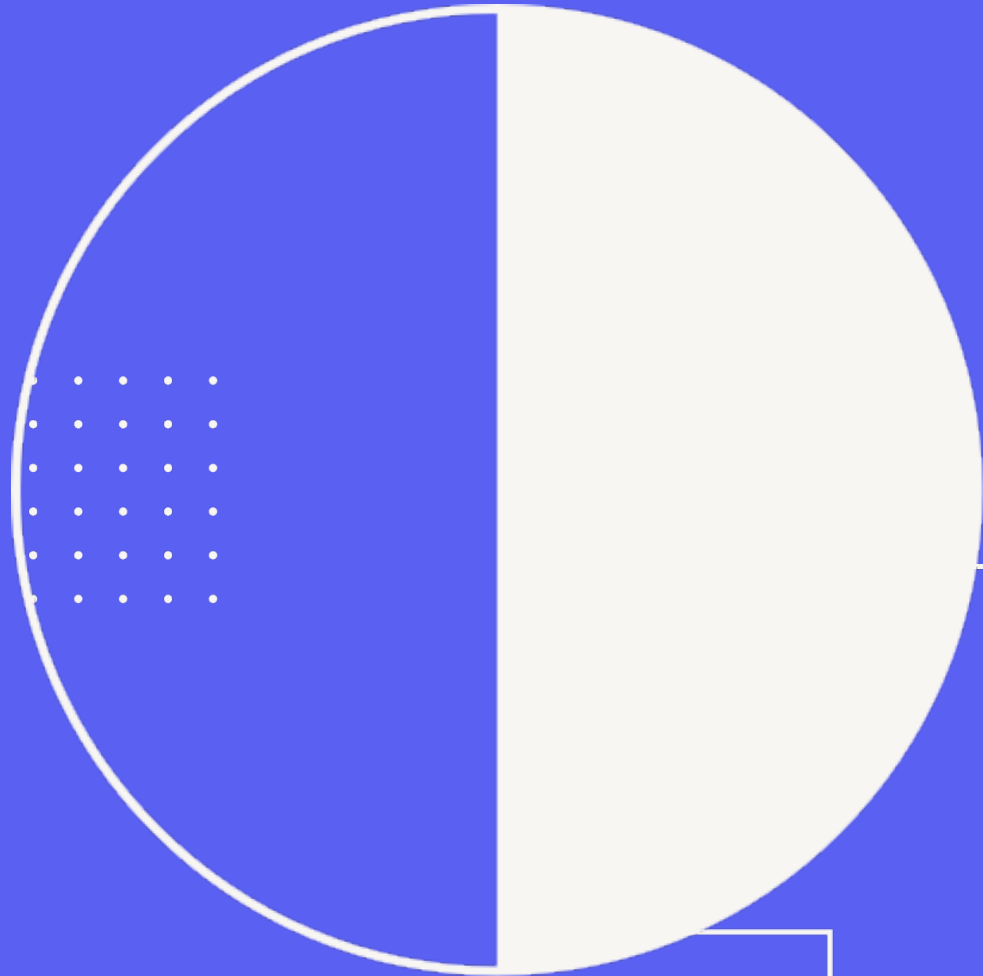
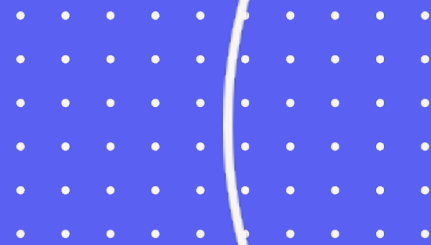
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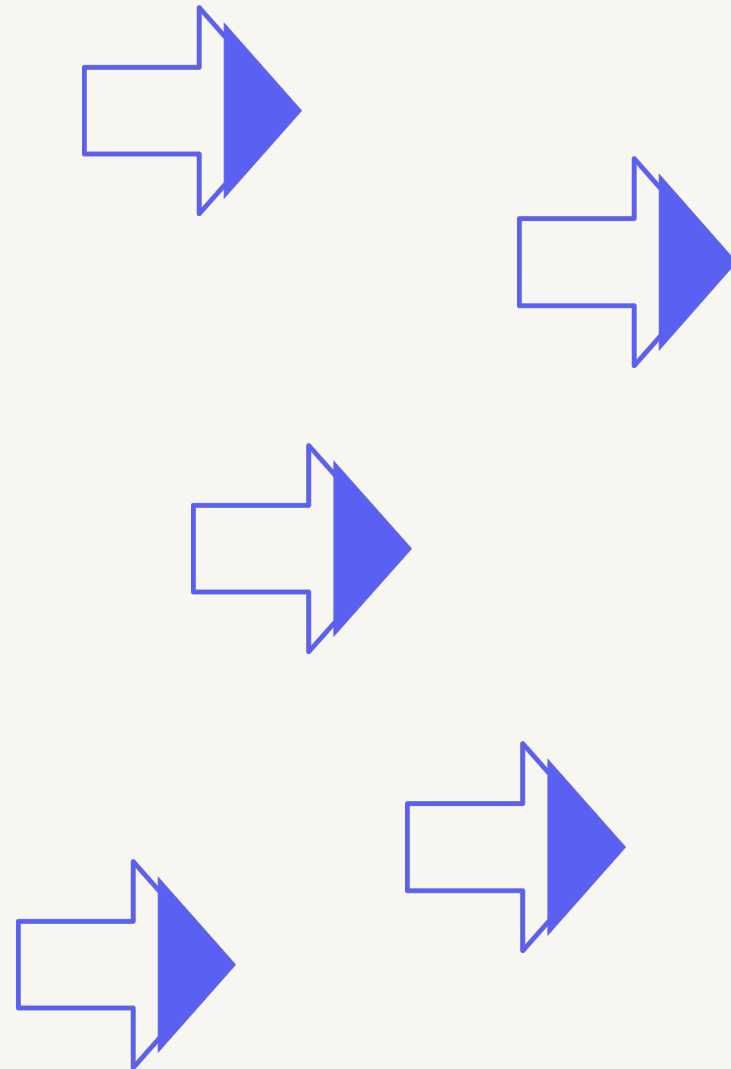
However, the interviewees were divided on which reward-based mechanism was most important to them. Some argued points were the most important, others the leaderboard. This points to the need for the game design to be heavily centred around the player type. SDA-NOW could implement a pre-test to find out which type of player users are.



Conclusion

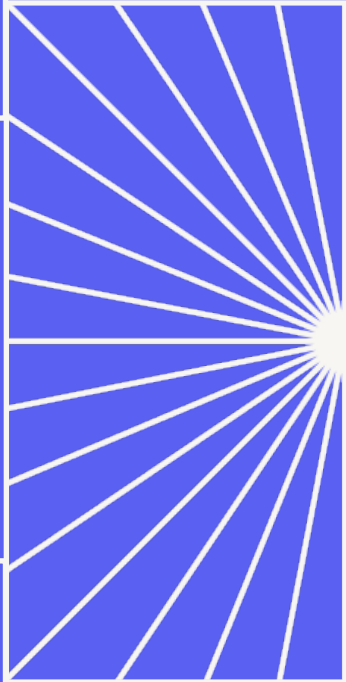


We started this project with the goal of creating a replicable game design that engages and inspires emerging adults to behave more sustainably in their living and working environments. To gather the data we needed, we designed an Actors Map and Key Personas as well as conducted qualitative interviews with our target audience and a scientific literature review. Our extensive data collection revealed the following insights:



Emerging adults in the Agri-Food industry **want to see** the **environmental impact** that their actions are having

Emerging adults' **preferences** regarding reward-based game design **differ depending on player type**

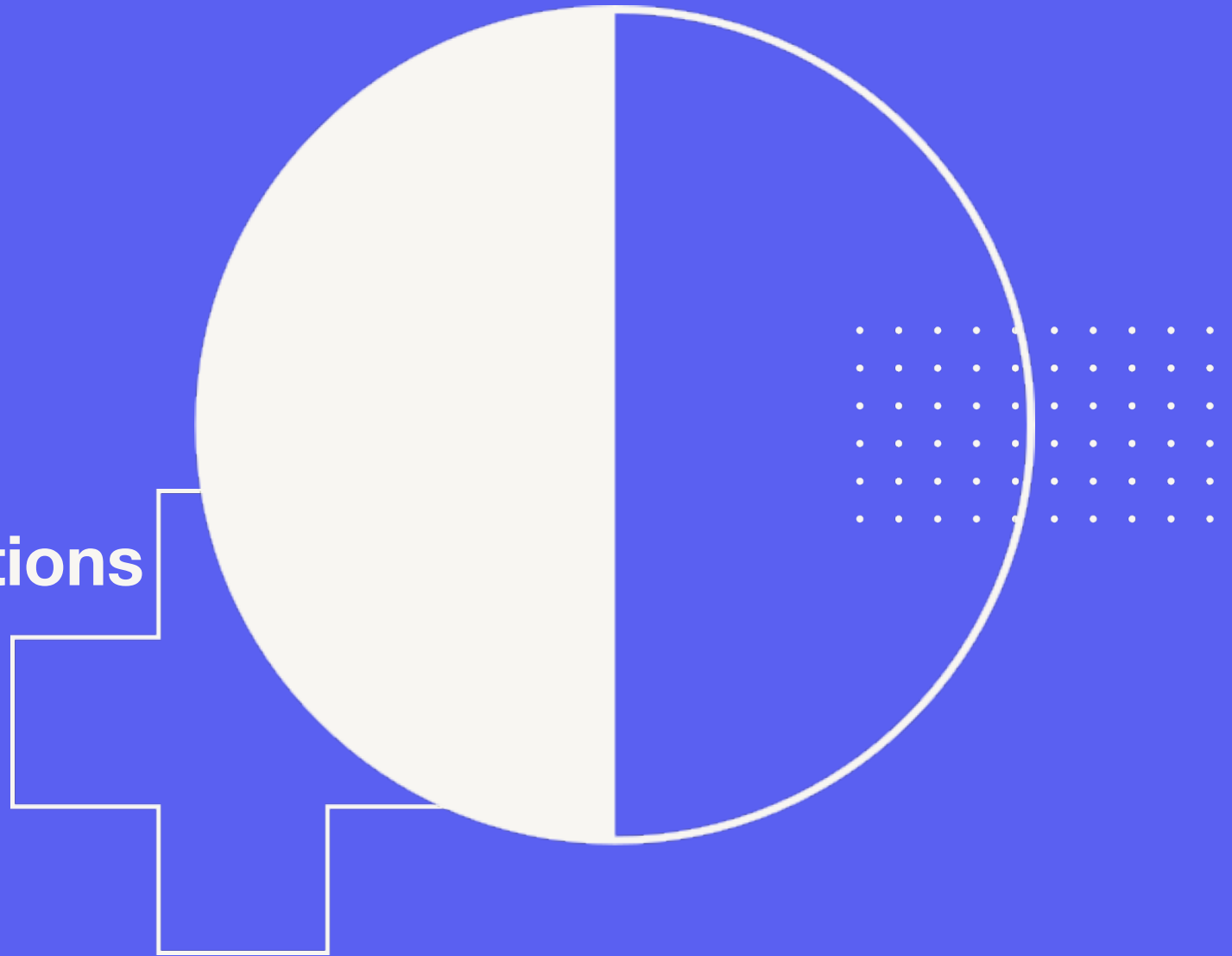




Emerging adults **like game internal rewards** as well as
game external rewards

Emerging adults **want their community to validate** their
game choice

Recommendations



Our findings clearly showed us the way to the needed prototype: The game design needs to be user-centred as well as reward-based. More specifically we provide the following five recommendations:



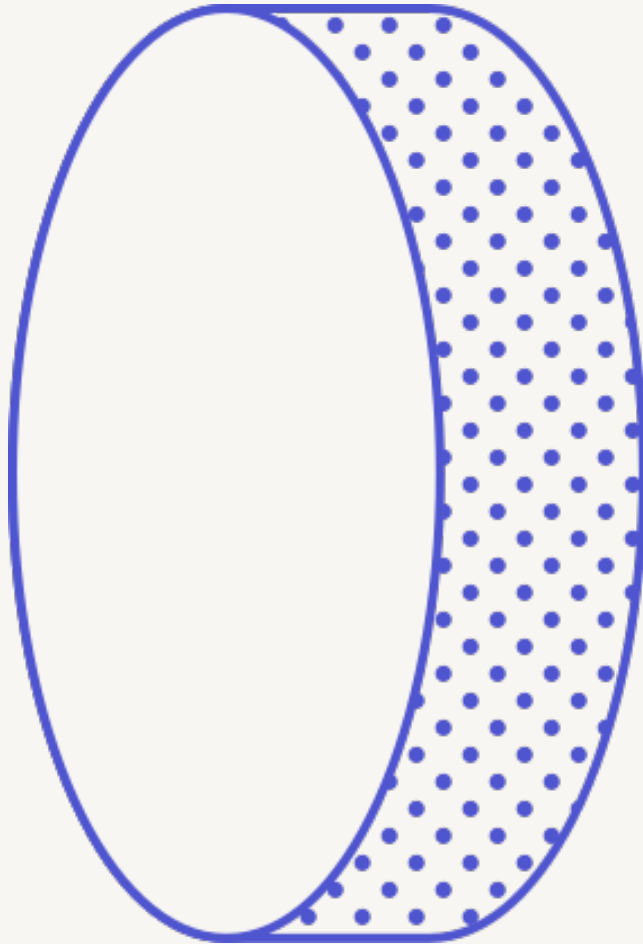
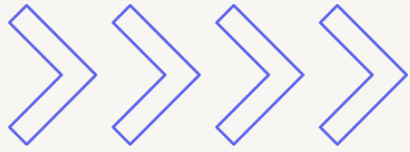
**Real-world
impact**

**Internal
rewards**

**External
rewards**

**Player type
consideration**

Shareability

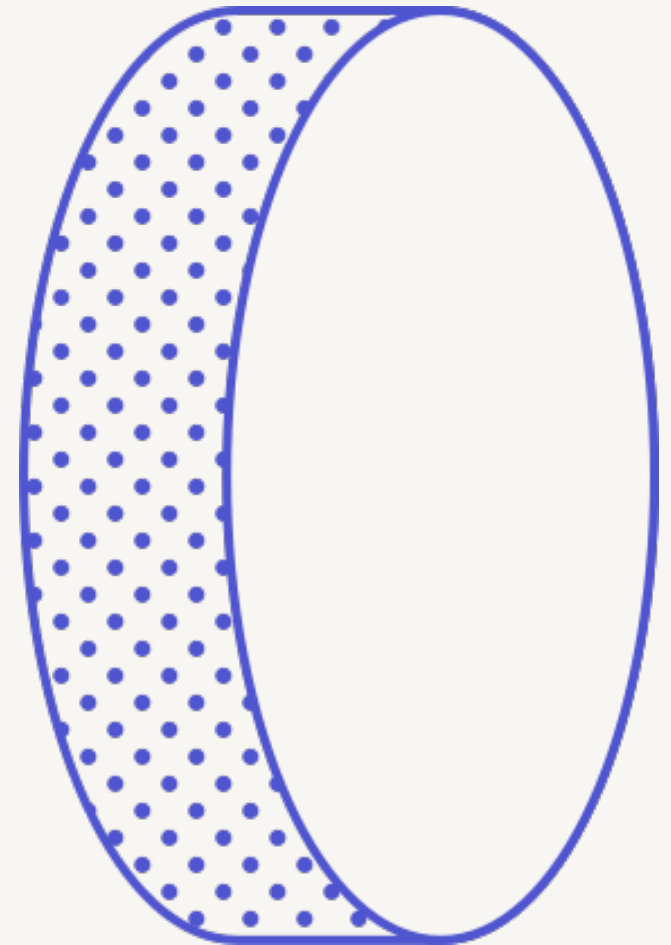
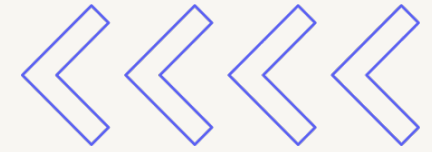


1. Hero's Journey should show the **real-world impact** the users sustainable behaviour is having. To make it even more appealing, the visualisation of the users' impact could be customised to the addressed SDG.
2. Hero's Journey should offer game **internal rewards** like points, badges, trophies and leaderboards. The internal reward system needs to be tiered and include more exclusive and harder to achieve rewards. These rewards will be particularly popular among the Achievers, Explorer and Killer player types.
3. Hero's Journey should also offer game **external rewards** like SDG-badges for the users' LinkedIn profile or CVs as external rewards are especially favoured among the player types Socialiser and Achiever. We recommend those specific rewards as they contribute to the marketing of the game. As employers see more and more SDG badges on their CVs or LinkedIn, they will take an interest in the game.

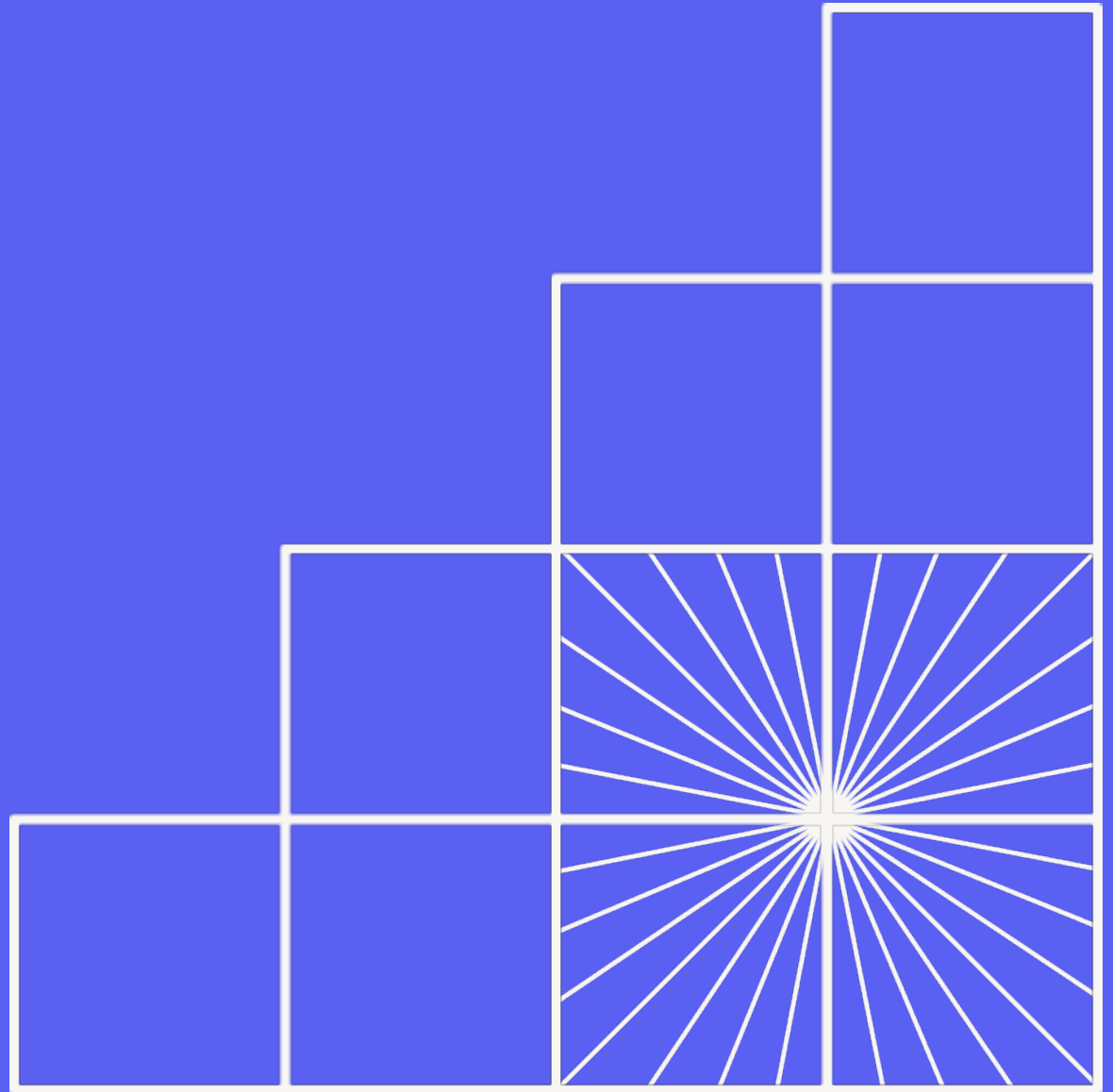
4. *The Hero's Journey* should implement a test at the beginning of the game to define the user's **player type** and adapt the reward mechanisms accordingly to ensure the best possible gaming experience.
5. *The Hero's Journey* should allow the user to **share** their game progress on social media or with other players within the game, especially after earning a badge or a trophy. The sharing mechanism will be particularly popular among the Socialiser player type as they like to share their experiences with their communities. Thereby they inform their communities about their positive game experience and additionally get them interested in *The Hero's Journey*.

When showing the updated game design to our interviewees they agreed on the importance of reward-based game mechanisms though they could not agree on which rewards they preferred. Again this highlights how essential a user-centred and reward-based game design is for creating a successful game.

Recommendations

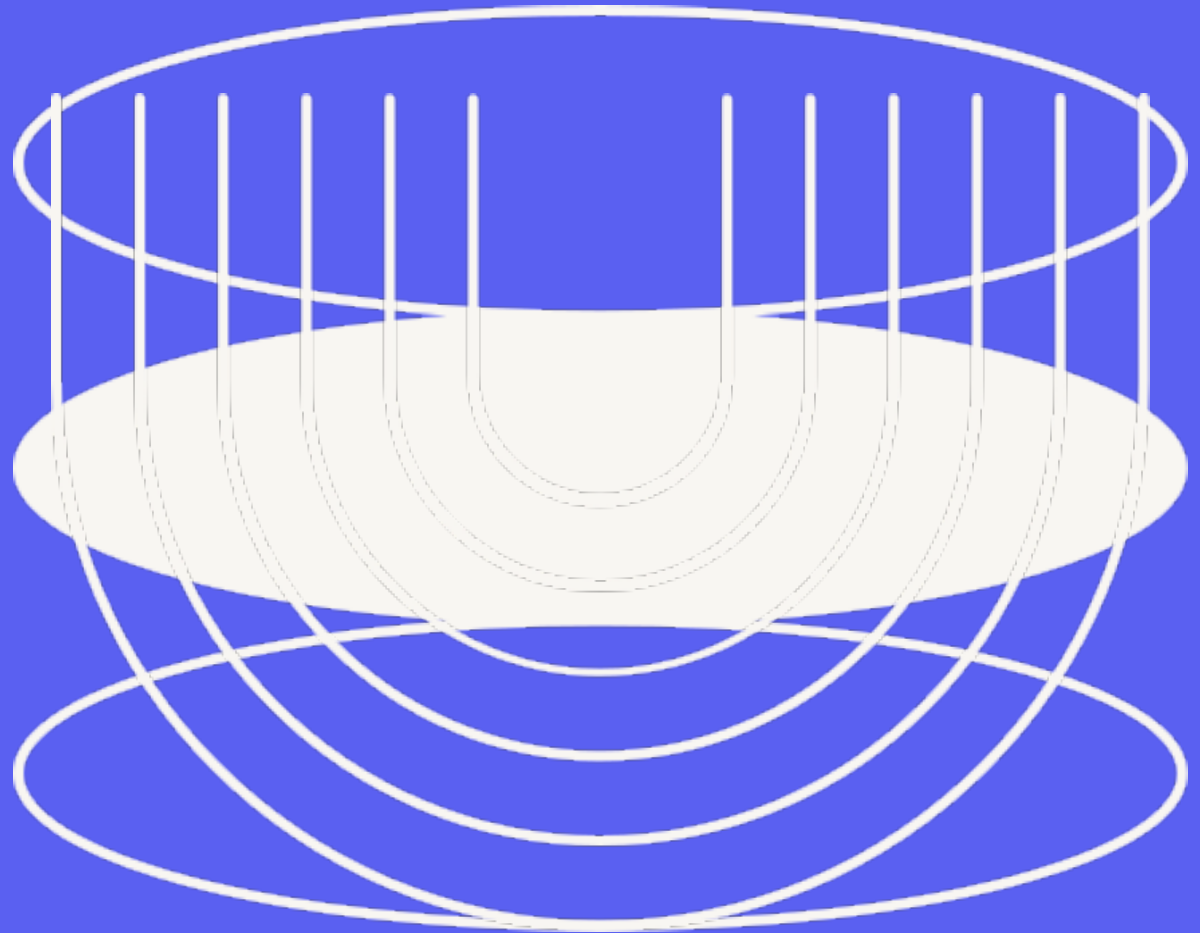


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Appendix



Logbook

Interview Notes

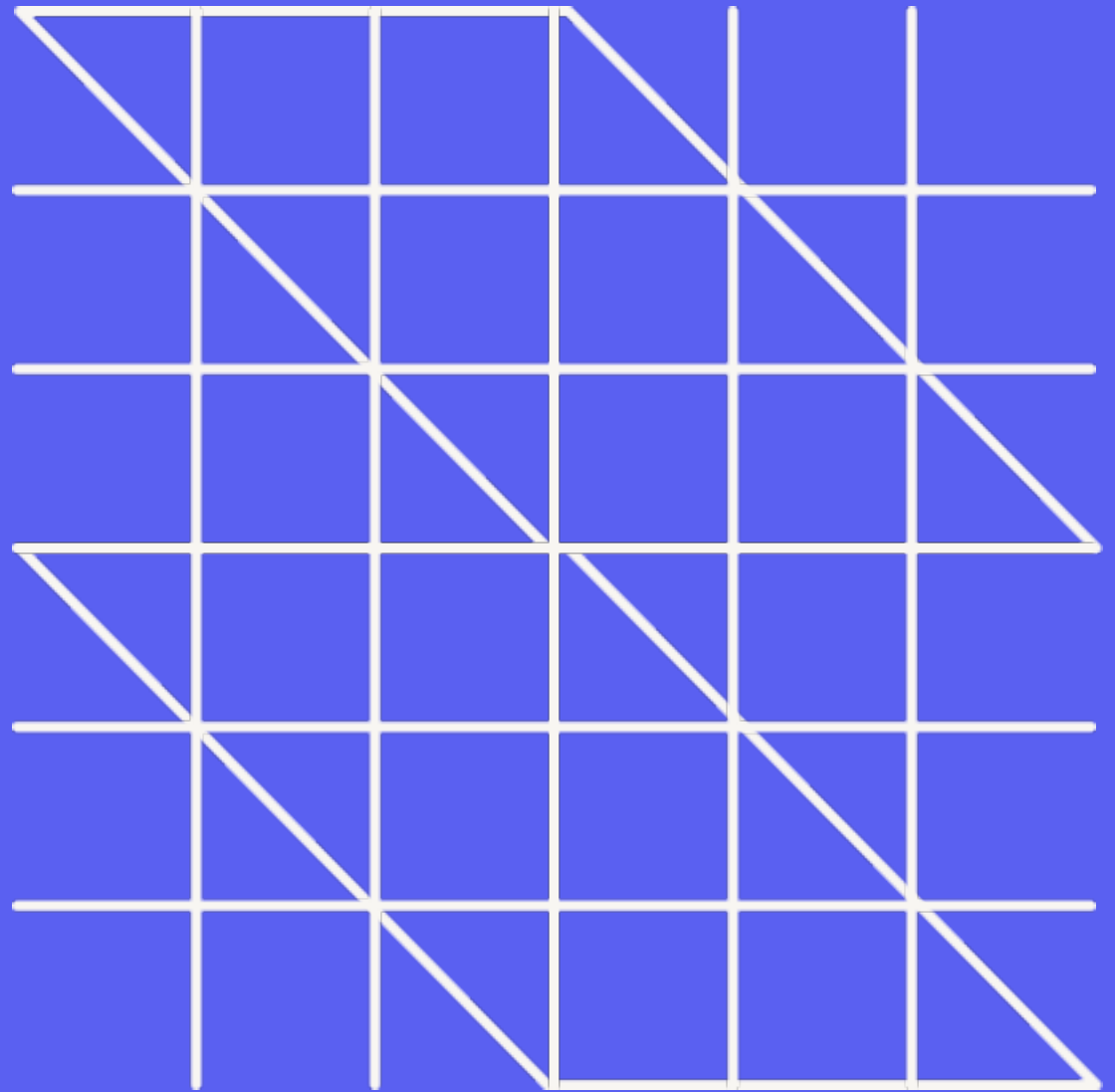
Empathy Map

Player type determination test

Slides

Prototype

Acknowledgement



As a team we have created a prototype that is feasible for the SDA-NOW to execute. As well as, a media product that will create behavioral change to a more sustainable one by the target audience. We (ComLab) wish SDA-NOW nothing but success for the future. This project was made possible by the contributions of this team and the support from Annemarie van Oosten, Paul Veld, Ben Willems and Han van der Zwan.



HELGE



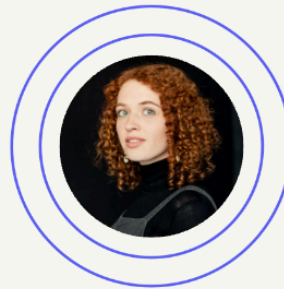
Communicator



TESSA



Project Leader



PAULINA



Project Organiser



FELIX



Designer



ZILVINAS



Researcher

