



Universidad de Valladolid



**ESCUELA DE INGENIERÍAS
INDUSTRIALES**

UNIVERSIDAD DE VALLADOLID

ESCUELA DE INGENIERIAS INDUSTRIALES

Grado en Ingeniería Electrónica Industrial y Automática

**Desarrollo de una comunidad web para
conectar estudiantes y empresas en
proyectos de tecnologías sostenibles.**

Autor:

García Fernández, Iria

Responsable de Intercambio en la UVa

Antonio Luis Valín Ortega

Universidad de destino

Avans Hogeschool

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TFG REALIZADO EN PROGRAMA DE INTERCAMBIO

TÍTULO: Circulaire Werkplaats Breda
ALUMNO: Iria García Fernández
FECHA: 20-12-2024
CENTRO: Academy for Technology & Innovation x
UNIVERSIDAD: Avans Hogeschool
TUTOR: Paul Walraven

Resumen:

Este trabajo describe el desarrollo del proyecto de una comunidad web que conecta estudiantes con empresas que tienen interés en implementar tecnologías más sostenibles en sus procesos. A través de esta plataforma, las empresas podrán exponer sus proyectos y los estudiantes de diversas titulaciones podrán trabajar en el proyecto ofrecido por la empresa.

Para llevar a cabo esto, se realiza una investigación previa sobre diversas comunidades similares en Países Bajos para determinar que aspectos tener en cuenta al diseñar la página web.

Se realiza también una investigación sobre desarrollo web y después se explica cómo se ha realizado dicha página web que acogerá la comunidad online, así como mantener la web en el futuro.

Este trabajo es un encargo de la asociación GreenOffice localizada en Países Bajos. Durante todo el proceso se ha estado en contacto tanto con el cliente como con los patrocinadores del proyecto, entre los que se encontraba el Ayuntamiento de Breda.

Palabras clave:

Sostenibilidad – Tecnología – Economía Circular – Desarrollo de proyecto – Comunidad

Abstract:

This project describes the project's development of a web community that connects students with companies interested in implementing more sustainable technologies in their processes. Through this platform, companies will be able to present their projects, and students from diverse degree programs will be able to work on the projects offered by the companies.

To achieve this, preliminary research is conducted on various similar communities in the Netherlands to determine which aspects to consider when designing the website. Research on web development is also carried out, and then, an explanation is given on how the website hosting the online community was created and how to maintain it in the future.

This work is commissioned by the GreenOffice association located in the Netherlands. Throughout the process, there has been constant contact with both the client and the project sponsors, including the Municipality of Breda.

Key words:

Sustainability – Technology – Circular Economy – Project Development – Community



**Circulaire
Werkplaats
Breda**

Semester project – Urban Innovation

Author: Iria García Fernández

University: Avans Hogeschool

Client: Nick den Bol

Introduction

This document is meant to provide an overview of a community where businesses and students collaborate to address sustainability challenges, thereby specifically focusing on the circular economy. It will outline the features and functionalities of such a community, the strategies for fostering interaction and maintaining relevance.

Also, it will be explained the development of the project, its parts and how it was carried out.

The circular economy is a systemic approach to economic development designed to benefit businesses, society, and the environment. It contrasts with the traditional linear economy by emphasizing the reuse, repair, refurbishing, and recycling of existing materials and products. This model aims to extend the lifecycle of products, thereby reducing waste and environmental impact.

We want to bring a circular future one step closer by creating an online community that brings together businesses and students to discuss and solve the problems related to a circular economy. Through this platform members can engage in discussions, participate in projects, and collaborate to overcome sustainability challenges. The website serves as a hub for information on circularity, showcases regional circular economy companies, and facilitates project initiation and management. The way to manage both the website and the community will be discussed.

Reusing and recycling products can significantly decrease the extraction of new materials, lowering total annual greenhouse gas emissions. According to the Ellen MacArthur Foundation, the circular economy offers numerous benefits, including reducing dependency on finite resources, stopping environmental degradation, and encouraging innovation and job creation. Embracing circular principles can help businesses transition towards more sustainable practices, contributing to global efforts in combating climate change.

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1. Definition of the problem

1.1 Main problem

The main problem:

Breda faces a significant challenge in its pursuit of a circular economy, lacking the necessary resources to achieve its ambitious goal of 100% circularity by 2050.

Due to the complexity of the broader issue, we will narrow our focus to a specific aspect, as follows:

Resulting problem for the project:

Breda lacks both a collaborative community platform for discussing sustainable practices and a physical space to host circular-focused activities, hindering innovation and cooperation in its pursuit of a circular economy.

We split this problem up in 2 smaller problems:

1. ***Breda faces a problem with the absence of a digital collaborative platform for discussing sustainability among all stakeholders.***
2. ***Breda's challenge lies in the scarcity of physical spaces to host circular activities, hindering collaborative efforts.***

Our vision is to create a collaborative and innovative platform where businesses and students work together to solve sustainability challenges through the principles of the circular economy. Focusing especially on the principle of repair to give a second chance to items that can still be useful. In this way waste is minimized. Our mission is to foster a dynamic community that encourages knowledge sharing, creative problem-solving, and the implementation of sustainable practices that benefit both the economy and the environment.

1.2 Target Audience: Businesses and Students

Our community is designed for two primary groups: businesses looking to implement or enhance their circular economy practices, and students eager to apply their knowledge and gain practical experience in sustainability projects. Our objective is to establish a connection between both groups. Businesses benefit from fresh perspectives and innovative solutions, while students gain valuable real-world experience and networking opportunities.

1.3 Core Values and Objectives

The core values that are important for the project are:

Core Values:

- **Sustainability:** This is the main core value we seek to implement within our community. We are dedicated to promoting sustainable practices that not only benefit the environment but also support long-term economic growth.

- **Collaboration:** We believe in the power of working together to achieve common sustainability goals. Our platform is built to facilitate strong partnerships between businesses and students.
- **Innovation:** We encourage creative thinking and innovative solutions to address sustainability challenges, promoting a culture of continuous improvement and adaptation. Students play a crucial role in this regard, as they provide fresh perspectives and innovative ideas.
- **Integrity:** Transparency and honesty are at the core of our interactions, ensuring that all community activities align with our commitment to sustainability and ethical practices.
- **Inclusivity:** Our community welcomes diverse perspectives and ideas, fostering an inclusive environment where everyone's contribution is valued.

Objectives:

- **Facilitate Knowledge Exchange:** Provide an accessible and user-friendly platform designed to facilitate meaningful interactions between businesses and students. This platform serves as a hub for sharing knowledge, collaborating on professional projects, and exchanging best practices, all with a focus on promoting and advancing principles of the circular economy.
- **Promote Sustainable Projects:** Encourage the development and implementation of innovative projects aimed at tackling specific sustainability challenges. These initiatives seek to provide practical solutions and promote long-term sustainable practices across various industries and communities.
- **Support Business Transformation:** Support businesses in their transition to circular economy models by providing access to a wealth of resources, expert guidance, and collaborative opportunities with students. This approach not only fosters innovation but also equips companies with the tools and insights needed to implement sustainable practices effectively.
- **Enhance Student Learning:** Offer students practical experience and opportunities to apply their academic knowledge in real-world settings. This enables them to learn more efficiently and stay motivated to continue their education in this field.
- **Build a Strong Network:** Create a robust network of stakeholders committed to advancing the circular economy, fostering long-term partnerships and collaboration. This network will serve as a foundation for shared knowledge, resources, and collective efforts towards sustainable practices.

By adhering to these core values and objectives, our community aims to be a leading force in promoting sustainability and circular economy practices in our region. Through collective action and shared commitment, we aim to set a benchmark for responsible and innovative environmental communities.

2. Context research

The first step must be to analyze the social context in which we operate, as well as to determine if there are similar projects already in place. From this analysis, we can assess whether this project will truly be useful and whether it has the potential to sustain and develop over time. Additionally, we can learn from other similar projects to offer a unique experience and service that effectively meets people's needs.

2.1 Area of analysis

This project focuses primarily on the city of Breda, a municipality in the North Brabant region in the Netherlands. As a university city, Breda has a large young population and many international students.



Image 1 Netherlands' map divided by regions

Breda has a population of 188,978 inhabitants in October 2024. The average age of the population is 41.8 years, slightly below the Netherlands' national average of 43 years, which may indicate a predominance of young people. Specifically, in Breda, 28% of the population is under 24 years old, and as seen in the population pyramid, there is a notable concentration of young people between the ages of 20 and 24. *Bibliography [7] and [2].*

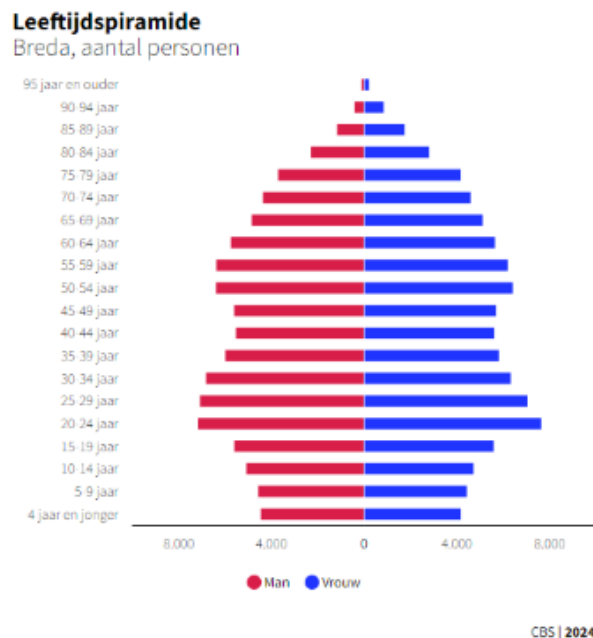


Image 2 Breda population pyramid

Breda is a university city with two universities, an art school, and several secondary education centers. Students often have multiple expenses to manage and typically either do not have a job or work part-time. Combined with the younger generations' growing concern for protecting the environment, this makes them the primary target audience for our project.

2.2 Industrial analysis

Breda is also an active industrial area, with its history dating back approximately two centuries.

The Netherlands is a small country, and similarly, its industry was traditionally small-scale, consisting mainly of small livestock businesses, with no significant industrial magnates.

Industrialization began towards the end of the 19th century and by the early 20th century, there was already significant urban growth, particularly in the neighborhoods of Princenhage and Teteringen. These areas offered ample space and were well connected via the Mark River and the railway, making them ideal locations for industrial development.

After World War II, industry grew significantly. Industrialization policies were implemented across the country. The Breda Industrial Promotion Company (BRIM) was founded, and the first industrial park in Breda, The Belcrum, was developed. *Bibliography [1].*

Currently, Breda continues to be an important industrial and economic hub in the Netherlands, with a diverse economy that includes sectors such as technology, logistics, and services, alongside its historical industrial roots.

2.3 Legislation

The Netherlands, like other UN member countries, has sustainable development goals (SDGs) to meet by 2030. These goals aim to address global challenges such as poverty, inequality, climate change, environmental degradation, peace, and justice. The Netherlands is committed to these objectives and actively works toward implementing them through national policies and initiatives focused on sustainability and climate action.

In addition to these global goals, some cities, such as Amsterdam, have their own sustainability agendas with specific objectives and proposals aimed at reducing pollution and resource wastage. These local initiatives focus on areas such as energy efficiency, circular economy practices, sustainable mobility, and waste management, helping to drive sustainable urban development and contribute to the broader global sustainability efforts.

One action being implemented in the Netherlands to reduce paper waste is the "Ja/Ja" sticker. These stickers are placed on mailboxes to indicate whether or not the recipient accepts advertising. As a reference, this measure in Amsterdam has resulted in a 10% less paper waste collected. This initiative encourages less unnecessary paper distribution, contributing to a reduction in overall waste and promoting more sustainable practices in the city, saving between €135,000 and €285,000 previously spent on collecting, transporting and recycling paper waste. Bibliography [5] and [6].

Another recycling-focused measure implemented in the Netherlands is offering subsidies for the repair of clothing and footwear. This initiative encourages the repair and reuse of items rather than discarding them and helping to reduce textile waste.

These are just a few of the many measures focused on sustainability, demonstrating the concern of both the government and citizens for circularity and environmental care.

2.4 Previous projects

In Breda, we can find several establishments called "Repair Cafe." As the name suggests, these spaces typically consist of two main areas: one functions as a cafe, and the other serves as a repair workshop. While this is the basic structure, each location operates differently and specializes in the repair of various items, with a particular focus on bicycles. These cafes not only provide a community space for people to socialize and share knowledge but also promote sustainability by encouraging the repair and reuse of goods, reducing waste in the process.

Focusing on recycling, we find a company in Amsterdam specialized in waste recycling. This company provides recycling solutions to businesses by offering container rental services, as well as collecting and processing waste efficiently. Their approach helps companies manage their waste in an environmentally responsible way, ensuring that materials are properly recycled and that the overall waste management process is streamlined for greater sustainability.

Another circularity project we found is a circular hub in Antwerp. It is a physical space that brings together various businesses. While these businesses may not be explicitly focused on recycling, the way waste is managed within this space is highly efficient, with a strong emphasis on minimizing waste production.

In conclusion, Breda is a city with a large student population and a strong industrial presence, as well as a society that is highly concerned about the environment and recycling. These factors make it an ideal location for implementing our project.

3. Possible solutions

Various options have been considered to find a solution that aligns with all the objectives we aim to achieve. Below, we analyze the two main options under consideration for developing our project:

3.1 Physical Place

As mentioned in the previous section, Breda already has several establishments dedicated to objectives similar to ours. Having a physical space would be a promising option for several reasons. It fosters the creation of a tangible community where people can meet in person. These face-to-face interactions can encourage deeper involvement in the project and lead to increasingly active collaboration, cultivating a growing and more committed community.

Another advantage is the streamlined and direct communication that comes with meeting people in person. Face-to-face interactions facilitate quicker and more efficient conversations, particularly when it comes to resolving questions or addressing concerns.

Additionally, a physical location can draw people's attention simply by being visible on the street, without the need for additional advertising (though that would be ideal).

However, a physical location requires a significant initial investment of money, time, and personnel. It also demands more preparation and a more detailed market study to ensure its viability and success.

Furthermore, most of the time, it will require people to travel to the location, limiting the reach of the community to a specific area.

3.2 Website

Our second option is less ambitious, but it can be just as effective, if not more so, than the first. Today, the internet has become an ideal space for starting any type of project, from small online stores to more complex websites with extensive development. A website is easy to implement and maintain, requiring a smaller initial investment. By combining a website with effective promotion through social media, we can reach a much larger audience from various locations, not just the Breda area (although the project will primarily focus on promoting this region).

Additionally, with an online platform, people can connect and search for information at any time of the day, without the limitation of fixed hours.

However, a new website can initially cause some distrust, especially at the beginning, and specific efforts need to be made to address this. However, with the support of public institutions like the Municipality of Breda and Curio, this challenge will be easier to overcome.

Another disadvantage is the need for a web development expert, as the website must be created with high quality. Additionally, technical issues may arise that need to be addressed promptly in order to maintain a high-quality service.

In conclusion, the main advantages and disadvantages of both formats are outlined in the following table.

Physical place		Website	
Pros	Cons	Pros	Cons
Meet people in person.	Big investment of resources.	Low investment of resources.	More difficult to be trusted at first.
No extra advertising needed	Need to go to the place.	Bigger influence area.	Necessity of experts.
		No schedule limitations.	

Upon evaluating both options, we realized that given the scope of our project and our current resources, the approach of a physical place is highly unfeasible. The substantial initial investment in both finances and personnel required to establish and operate a physical location makes it impractical at this stage.

It was decided to opt for the website option to host our sustainable community. It is an easier way to start the project without the need for a large investment, and the option of a physical location can be considered in the future if the community develops as expected.

4. Project Development

To carry out this project, a period of 15 weeks was allocated, during which effective organization and clear communication among all team members were essential. These factors were crucial to ensuring that the project progressed appropriately and within the designated timeline

The primary focus will be on managing our time in a good way and to act efficiently, to avoid wasting it. Additionally, this initial planning will allow us to divide the project into smaller parts and establish a logical structure. This approach will make it easier to develop the project in an organized and systematic manner.

Below is a Gantt chart that outlines the weeks available and how they are distributed across the diverse parts and subparts of the project. Another organizational scheme can be seen in Appendix 2 – Organization chart.

It is important to highlight that this chart was adjusted on the way to account for issues that arose, which caused delays in certain stages of the project.

ACTIVITY PLAN				SPRINT 0. PROBLEM DEFINITION		SPRINT 1. RESEARCHING				SPRINT 2. DESIGNING OF THE WEB			HOLIDAYS	SPRINT 3. DEVELOPING				SPRINT 4. FINAL PRESENTATION
#	Activity	START WEEK	END WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	PROJECT COMPLETED	1	15															
0	Problem definition circular hub	1	2															
0.1	Document of agreements	1	2															
0.2	Create SCRUM roles	1	2															
0.3	Contract	1	2															
1	Researching	3	6															
1.1	Website research (v1)	3	4															
1.1.1	Additional researching website (v2)	4	6															
1.2	Best practice report (v1)	3	4															
1.2.1	Additional researching best practice report (v2)	4	6															
1.3	Contact plan	3	4															
1.4	Contact circular hub Antwerp	3	4															
1.5	Interviews	4	6															
1.6	SME ASSESSMENT + Report	4	6															
2	Designing the website	13	14															
2.1	Wireframing	13	14															
2.2	Get basic text from client	13	14															
3	Developing	13	14															
3.1	Advisory report	13	14															
3.2	Test presentation	13	14															
4	Final presentation	13	14															
4.1	Design of the presentation	13	14															

Image 3 Project's gantt chart

The following provides a detailed explanation of the various stages the project has undergone.

4.1 Stage 0

0	Problem definition circular hub
0.1	Document of agreements
0.2	Create SCRUM roles
0.3	Contract

Image 4 Stage zero tasks

Stage 0 is referred to as "Problem Definition." This initial stage aims to lay the foundation for the project. It is a really important phase for understanding the scope of the project and initiating negotiations with the client.

After thoroughly understanding the project's requirements and scope, documents are drafted to record all the information in writing. The contract of this project can be seen in Appendix 3 – Project contract. This ensures that both parties have a clear agreement on all the terms discussed, preventing problems in the future.

The plan showed earlier was designed during this stage.

Additionally, the role of each team member within the SCRUM methodology was defined. This iterative, agile work method aims for a faster and more effective project development. Its main characteristics are:

- Sprints
The project is divided into short work sessions, in our case lasting 1 or 2 weeks. At the end of each session, a meeting is held with the client to receive feedback and guidance on our work.
- Constant collaboration
As mentioned, this method is based on short work sprints, making it essential to work efficiently during each session. Every team member must commit to their assigned tasks while fostering collaboration to ensure overall progress. Those who complete their portions of the work ahead of schedule can assist teammates who may need additional time, promoting collective success.
- Flexibility
This method offers significant flexibility in project development. Being an iterative approach with short sprints, it allows for course corrections at any point during the project, ensuring adaptability to changing requirements or unforeseen challenges.

4.2 Stage one

1	Researching
1.1	Website research (v1)
1.11	Additional researching website (v2)
1.2	Best practice report (v1)
1.21	Additional researching best practice report (v2)
1.3	Contact plan
1.4	Contact circular hub Antwerp
1.5	Interviews
1.6	SME ASSESSMENT + Report

Image 5 Stage one tasks

In the first phase, research will be conducted on all the aspects that we are considering in our project. Therefore, we will research different types of websites and how they facilitate ease of use. Additionally, we will do a research on best practices, focusing on all aspects related to the circular economy and recycling, as well as examining various companies that already exist and are involved in similar activities

As can be seen on the plan, there are two versions of both documents: V1 and V2. This approach was implemented due to the initial short research phase, which allowed us to gather preliminary insights and present them to the client for feedback. The primary objective during this phase was to ensure the research trajectory aligned with the client's expectations and requirements. After receiving their suggestions and refining the direction, we proceeded to develop a more comprehensive and finalized version of the documents.

These documents can be seen in Appendix 4 – Best practices report and 5.

This iterative process is vital for maintaining alignment between the project's development and client needs, ensuring that each step is informed by real-time feedback and adjustments. By incorporating the client's input, we not only validate the research path but also ensure the final product is robust and tailored to the project's objectives. This method of continuous improvement is a hallmark of agile project management, fostering a dynamic and responsive development process.

During the course of the research, two companies relatively close to Breda were particularly interesting due to their alignment with the objectives of our project. As a result, a contact plan was developed for these companies, outlining key questions designed to gather insights that would help us refine and focus our project effectively.

4.3 Stage two

2	Designing the website
2.1	Wireframing
2.2	Get basic text from client

Image 6 Stage two tasks

In Phase 2, the web's wireframe design begins, encompassing the creation of the logo, selection of colors, and other graphic and content-related aspects of the website. Multiple website design proposals were developed and presented to the stakeholders, allowing them to provide input and help determine the final design based on their feedback

Logo design

The aim was to represent circularity and the connection between different groups of people working together to carry out sustainable projects.

In image 7 it can be seen different options for the logo design, it was chosen the second option.

That is the reason why there are five circles representing the different groups of people and also there is an arrow through them all connecting them with the goal of circularity.



Image 7 Options for Circular Hub Logo

Color palette

Color psychology was taken into consideration when choosing the colors. *Bibliography* [8]. The first option consisted of a palette of green tones. Green is commonly associated with sustainability and nature, and the pastel shade evokes a sense of calm. Other versions were considered, such as shades of blue and orange. These are complementary colors, creating a vibrant and attractive palette that appeals to the audience.

Finally, in the meeting with the stakeholders, it was decided that the chosen colors would be a palette of green tones, with the logo also designed using the same colors.

	Background	Buttons	Tittles
Option 1		Click	
Option 2		Click	
Option 3		Click	
Option 4		Click	

Image 8 Color palettes options

4.4 Stage three

3	Developing
3.1	Advisory report
3.2	Test presentation

Image 9 Stage three tasks

In stage 3, the development of the advisory report for the client begins.

Since the client has been involved throughout the entire process and has reviewed all the stages, the final report will consist only of the conclusions and results obtained from the entire process.

4.5 Stage four

4	Final presentation
4.1	Design of the presentation

Image 10 Stage four tasks

Finally, in this stage, we prepare the final presentation to show the client the completed result of the project. This presentation is also attended by our professors to review the final outcome of the project we have worked on throughout the semester.

4.6 Other aspects taken into account

Communication with the client

Maintaining regular contact with the client is essential to ensure that all their expectations are being met and to discuss any questions, issues, or alternative solutions that may arise. This approach fosters consensus with the client, who will feel more involved in the project, ultimately facilitating a satisfactory outcome for both parties.

In our case, weekly meetings were scheduled every Tuesday at 11:30 a.m. at Avans University, in the main building. During these meetings, we discussed the progress made on the project over the past week, addressed any questions we had, and offered suggestions to the client. In turn, the client provided guidance, indicating whether we were working in the right direction.

These meetings were subject to adjustments based on the amount of work completed during the week. If the progress made during the week was not particularly significant or if the work consisted primarily of revisions to previously completed tasks based on the client's feedback, the meeting could be canceled.

Our client was highly collaborative throughout the entire project, granting us considerable freedom while effectively conveying their vision for the initiative. Additionally, they took responsibility for direct communication with the project's sponsors, keeping them informed about our progress and organizing a meeting with all stakeholders to allow them to contribute their input to the project.

Contract

It is crucial to document all aspects of the project, including what we are committed to deliver, deadlines, any required deliverables, and how communication with the client will be handled. It is equally important to specify what is expected from the client and outline the conditions under which the project will be carried out. This process helps prevent misunderstandings in the future and ensures that no additional demands are made beyond the initial agreement. Moreover, it protects us in case of client disengagement. If we find that the client is not sufficiently involved and that the project is unlikely to meet their expectations, we reserve the right to terminate the contract.

This does not mean we are unwilling to consider changes or expansions to the project. Any suggestions for changes made by the client can be discussed. If the proposed changes are deemed significant enough, we will evaluate the possibility of drafting a new contract to ensure all details are clearly outlined.

The contract of this project can be seen in Appendix 3 – Project contract

The stakeholders

Stakeholders are individuals or entities invested in the success of a project. They provide both personal insights and expert opinions in the fields of sustainability and community development. If the initial project proves satisfactory, these organizations will take on the responsibility of securing funding and resources to implement the project.

Our client maintained regular contact with them to keep them informed about our progress. Towards the end of the project development, we delivered a presentation directly to them to gather their feedback firsthand.

The stakeholders of this project are:

- Germeente of Breda

These is the Municipality of Breda. As previously mentioned, Breda is a city deeply committed to sustainable initiatives and strongly supports projects developed by educational institutions.

- Avans University

The client for this project was the GreenOffice association, part of Avans University, a university with numerous sustainable projects currently in development.

- Breda University

Breda is a university city, as mentioned earlier, and it is home to two higher education institutions.

- Curio

An educational institution with 39 centers distributed across the Brabant region in the Netherlands. It is a secondary-level education center offering a wide variety of programs and courses.

5. Website Overview

As previously explained, it was ultimately decided to design a website based on all the resources that were available to us.

We used the online tool Figma for the design. *Bibliography [4]*.

Our website is going to serve as a dynamic platform connecting businesses, with emphasis on small and medium enterprises, and students from different educational institutions based in Breda and Breda region to tackle sustainability challenges through the lens of the circular economy. Its goal is to educate, inspire, and facilitate collaborations that drive sustainable practices and projects within our region.



Image 11 Web's home page

5.1 Key Features and Functionalities

The following explains the sections of our website and the content that can be found in each of them.

5.1.1 Explanation of Circularity:

The front page of the website will provide comprehensive information on what circular economy is and its principles, importance and relevance in today's society. Content will be presented through different articles, infographics and videos with goal to provide coherent and educational information to people who visit the website and want to get more informed on topic of circular economy.

5.1.2 Showcase of Circular Economy Companies:

Since we believe in sharing knowledge and learning from each other's example, we will highlight regional companies implementing circular economy practices through case studies, success stories, and innovative projects, serving as a source of inspiration for best practices.

5.1.3 Community Discussions:

One of the main features of the platform will be a discussion forum where businesses and students can engage in conversations about ongoing circular challenges that Breda region faces.

The goal of such forum is problem solving in collaboration with peers, knowledge sharing and networking with other companies.

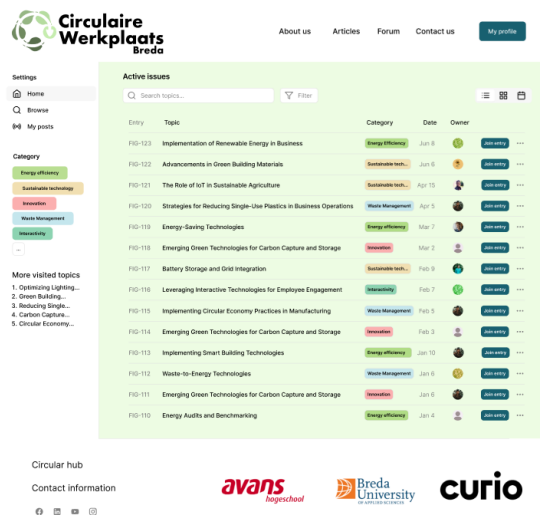


Image 12 Forum page

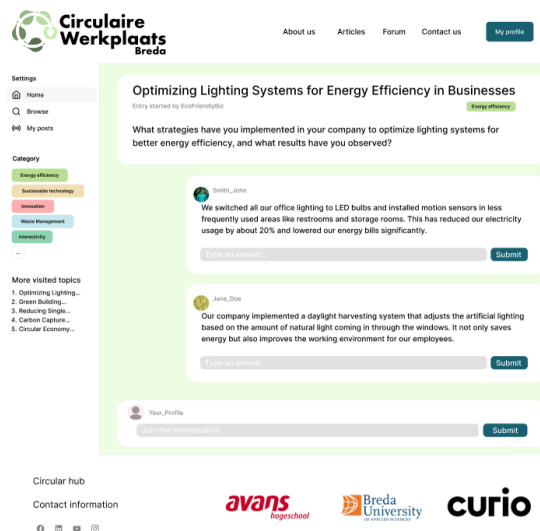


Image 13 Forum discussion

5.1.4 Intake Meetings for Project Initiation:

To connect businesses with students and other experts, companies can sign up for an intake meeting. Staff members will assess company's problem and their needs and if necessary, create a project centred around circularity. Company will collaborate with one of our stakeholders which is most suitable for their issue.

5.1.5 Contact Page:

This section allows the users of the web to contact us in any doubt they have. It is an easy and accessible form. We need to make sure that the form is easy and appealing to the users, so they won't hesitate to contact us. Also, it would be ideal to answer fast to the messages in order to create a trustful platform.

Image 14 Contact us page

5.1.6 Project Posting and Articles:

Every completed project and all ongoing initiatives will be documented and posted on the website in a form of articles. The goal of this is to provide visibility to successful collaboration and present to the community work that circular hub does. It also serves as a repository of solutions to different problems that companies face and insight into solutions and implementation of circular economy practices.

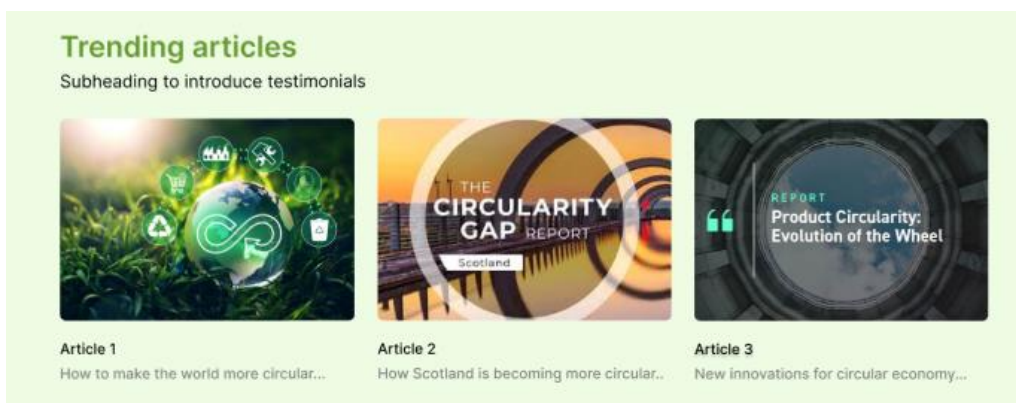


Image 15 Trending articles display

5.2 Differentiating Approach

Unlike other similar websites, Circular hub website emphasizes a more interactive and community-driven approach. Focus of such approach is direct interaction and collaboration between businesses and students. That way tailored approach and support will be created for each company and with continuous showing of projects and success stories, community will be active, engaged and inspired.

6. Interaction and relevant content

6.1 Engagement Strategies

In this section, we will present a plan created with the goal of creating an active and engaging community in Breda, where participants will be able to discuss different topics related to sustainability and circularity.

- **Regular Updates and Newsletters:** Companies will have the opportunity to subscribe to a monthly newsletter. The newsletter will contain updates on local news about circular economy, upcoming events in Breda relating to the topic of circularity, like seminars and workshops, different project highlights and various success stories from the region. This way we hope to keep members informed and engaged with ongoing activities and developments relevant to them.
- **Interactive Discussions and Forums:** On the website there will be hosted a discussion forum where local businesses and students can engage in productive discussions and conversations about different sustainability challenges and topics specific to Breda. Moderators will facilitate discussions, encourage participation, with a goal of keeping conversations productive and relevant to community.
- **Polls and Surveys:** Quarterly polls and surveys will be conducted to gather insights from our community members. They will focus on their preferences, interests, and feedback on ongoing projects. This feedback loop will help us keep our suggestions and offerings relevant, to better meet the needs of local community and make members feel valued and heard.
- **Incentives for Participation:** Simple rewards system will be utilized to recognize active participation and improvement. For example, members who frequently contribute to discussions or participate in local events will be able to earn points that can be redeemed for small rewards such as eco-friendly merchandise or vouchers for local businesses.
- **Recognition and Awards:** To encourage engagement, we will set up a recognition program, often seen in other communities of this sort, that includes awarding badges for achievements such as "Top Contributor" or "Local Sustainability Champion." These badges will be displayed on members' profiles, providing public acknowledgment of their contributions. Additionally, we will host an annual local awards event to celebrate major achievements within our community.
- **Networking Opportunities:** To foster a space for collaboration, regular networking events will be held, per example, small scale meetups, different workshops and informative seminars. They will be organized with an idea to provide networking opportunities, encourage knowledge sharing and building a strong and connected professional community among companies within Breda with circular aspirations.

- **Learning and Development Resources:** One of the biggest goals of this platform, other than community and collaboration, is distribution of knowledge. With that in mind, a variety of learning resources will be provided, including local workshops and articles focused on circular economy practices relevant to Breda. To ensure accuracy of all the articles and seminars, we will collaborate with local experts to provide high-quality educational content. Moreover, a mentorship program will be established, pairing experienced local professionals with students or less experienced members to facilitate knowledge transfer and professional development.

By implementing these localized strategies, we aim to create an active community where members feel motivated to contribute to the collective goal of advancing circular economy practices in Breda. By implementing different systems such as reward, we hope to foster an environment of success and uplifting others in their circular journey.

6.2 SIPOC diagram: creating interaction

To represent it visually, we make a SIPOC diagram and some ideas about how can these processes can be implemented:

SIPOC DIAGRAM				
SUPPLIERS	INPUTS	PROCESSES	OUTPUTS	CUSTOMERS
Who supplies the process inputs?	What inputs are required?	What are the major steps in the process?	What are the process outputs?	Who receives the outputs?
Community Engagement Team	- Content for newsletters. - Platform for forums. - Poll and survey questions. - Rewards and badges - Event organization details - Learning materials	1. Regular Updates and Newsletters: Create and distribute monthly newsletters	Engaged and informed community members	Local businesses and students in Breda
Local Circular Economy Experts	- Articles and workshop content	2. Interactive Discussions and Forums: Host and moderate discussions on the website	Interactive and productive forum discussions	Community members seeking knowledge and engagement
Community Members	- Feedback and participation	3. Polls and Surveys: Conduct quarterly polls and surveys	Collected insights and feedback from community	Engagement team and local community
Local Vendors and Sponsors	- Eco-friendly merchandise and vouchers	4. Incentives for Participation: Implement rewards system	Increased participation and member satisfaction	Active community members
Community Engagement Team	- Criteria and evaluation for recognition	5. Recognition and Awards: Implement recognition program and organize annual awards event	Motivated and recognized community members	Active contributors and local sustainability champions
Event Organizers and Facilitators	- Networking event logistics and facilitation	6. Networking Opportunities: Organize local meetups, workshops, and create special interest groups	Stronger professional relationships and collaboration within the community	Local businesses, students, and sustainability advocates
Local Circular Economy Experts & Mentors	- Workshop and mentorship program details	7. Learning and Development Resources: Offer workshops, articles, and mentorship opportunities	Enhanced knowledge and professional development of community members	Community members seeking education and growth

Image 16 SIPOC diagram Interaction

6.3 Continuous Content Development

To continue to keep the community active, generating a commitment and constant interest on their part, it is necessary to seek the continuous development of the content that is generated within the website, all this for companies as well as for the students of Breda. To do this, the recommended content is as follows:

- **Regularly Updated Articles:** The publication of updated articles on the latest practices focusing mainly on the circular economy, this mainly includes the trends within the Breda region and its surroundings as well as some other global practices, all this with the purpose of keeping the community informed about this topic.
- **Case Studies and Success Stories:** The presentation of some projects that have generated success by community members can be an inspiration to make some new practices and ideas and to think about the benefits of the circular economy, generating a learning purpose among community members, sharing experiences and knowledge with each other.
- **Industry Trends and News:** Publishing the latest news and trends about the circular economy can help to some businesses to understand the positive impact it could have on different industries, as well as on the students involved in it. This will also generate interest and keep members informed about how the circular economy is evolving and all the recent changes and opportunities within the industry.

6.4 Feedback Mechanisms

The use of the feedback is very important to understand the constant doubts that the community may have about the use of the platform and above all to be able to improve it, for this, the following forms will be used:

- **User feedback forms:** Use user feedback so you can get information about the experiences they've had with the platform and about the community. This will directly help to improve the community experience.
- **Community surveys:** Conduct surveys to obtain an evaluation of the satisfaction and participation that users have within the community. This will help provide quantitative data about the user experience, what is working well as what can be improved.
- **Feedback-based iterative improvements:** All feedback collected should focus on constantly improving the website and community activities. This has a direct impact on listening to the community and fostering a sense of belonging, seeking the active participation of users.

6.5 Key Adjustments for a Smaller Community

Since our community will be deployed in a small region like Breda, we can make some specific adjustments:

- **Personalized content and reach:** It is important that, taking into consideration the context of focusing on a smaller community, the content must seek to be much more personalized and mainly that its dissemination is much more direct. Tailor the content to the most specific issues in Breda, also seeking to engage local people through different means of communication such as emails or social media.

- **Local success stories:** Success stories will always be a great source of inspiration; it is necessary to highlight mainly local stories to generate a much stronger connection in the community. Sharing these types of examples can help other members of the community to start acting and mainly to know the main challenges that the other members of the community may have faced.
- **Frequent and direct communication:** It is important to use some much more direct communication channels within the community, sometimes they can be face-to-face meetings, some webinars or other types of meetings, look for the best method of communication within the community so that you can feel a much more real connection and that you can adapt to what the community needs.
- **Localized surveys and feedback:** Feedback forms need to be tailored to the needs of the Breda region. These personalized surveys will genuinely help reflect the specific context of Breda, providing important information.

By adapting these strategies to a smaller community, we can establish a much more effective platform, looking to meet the specific needs of local businesses and involving the student community of Breda. This is seeking a commitment on the part of everyone and promoting the foundations of the circular economy.

6.6 SIPOC diagram: maintaining relevance

To represent it visually, we make a SIPOC diagram and some ideas about how these processes can be implemented:

SIPOC DIAGRAM					
SUPPLIERS	INPUTS	PROCESSES	OUTPUTS	CUSTOMERS	
Who supplies the process inputs?	What inputs are required?	What are the major steps in the process?	What are the process outputs?	Who receives the outputs?	
Community manager	- Articles - Case studies - Industry news	1. Regularly Updated Articles: Post articles on circular economy advancements	Informed and engaged community members	Local businesses and students in Breda	CONTINUOUS CONTENT DEVELOPMENT
Community Members & Local Businesses	- Project details - Success stories	2. Case Studies and Success Stories: Showcase successful projects	Practical applications and inspiration for other members	Community members seeking knowledge and inspiration	
Local Businesses	- Latest industry news - Trend reports	3. Industry Trends and News: Share relevant news and trends	Awareness of broader industry changes and opportunities	Community members staying updated on industry trends	
Community Members	- Feedback and suggestions	4. User Feedback Forms: Implement regular feedback forms	Insights into user experiences, challenges, and suggestions	Community engagement team	FEEDBACK MECHANISMS
Community Members	- Responses to surveys	5. Community Surveys: Conduct periodic surveys	Quantitative data on satisfaction and engagement levels	Community engagement team	
Community Manager	- Feedback data	6. Iterative Improvements Based on Feedback: Use feedback to improve platform and activities	Continuous platform and activity enhancements	Community members seeing tangible changes from feedback	
Content Development Team	- Personalized content details - Local Success stories	7. Personalized Content and Outreach: Tailor content and direct outreach	Content that addresses local issues and interests, and personalized engagement	Members of the smaller Breda community	KEY ADJUSTMENTS FOR SMALLER COMMUNITIES
Local Businesses & Community Members	- Local success stories	8. Local Success Stories: Highlight successes from local businesses and students	Stronger community connection and motivation	Community members in Breda	
Community Manager & Operational Procedures	- Communication strategies - Event details	9. Frequent and Direct Communication: Utilize meetups, webinars, and small group discussions	Closer-knit community with increased connection and engagement	Local businesses and students in Breda	
Community Members	- Local needs and preferences feedback	10. Localized Surveys and Feedback: Focus feedback mechanisms on local context	More relevant insights for community improvements	Community engagement team and local community members	

Image 17 SIPOC diagram relevance

7. Project Acquisition and Management

Companies interested in starting a circularity-focused project can register for our intake procedure on our website. During the sign-up process, a form must be completed online in order to obtain vital information about the business and its sustainability issues. This form will ask about the project's intended outcomes, the company's specific aims, and its present sustainability policies.

7.1 Company Sign-Up Procedures

The registration form is designed to make its function simple to use and get the most comprehensive information possible. To this end, the information that will be requested will be:

- Company name and contact details
- Description of the sustainability challenge
- Goals and expected outcomes
- Preferred timeline for the project
- Any existing sustainability initiatives

Once the form is completed, it will be reviewed in detail by a member of the team who will have to follow up so that they can schedule an intake meeting later.

7.2 Staff Member Roles and responsibilities

Responsibilities Staff members play a crucial role in the project acquisition and management process. Their responsibilities include:

- Reviewing intake forms and scheduling initial meetings
- Conducting intake meetings to understand project requirements
- Matching companies with suitable stakeholders from our community
- Overseeing the progress of projects and providing ongoing support
- Ensuring projects align with community values and objectives
- Making sure articles and posts can be made for the website from the project

These staff members work to link the business with the stakeholders, seeking to make communication between them much easier, all this seeking to ensure that all parties are aligned with the objectives that the project offers.

7.3 Project Matching Based on Stakeholder Information

Staff members will review our database of stakeholders, which includes students and businesses engaged in circular economy activities, using the data gathered from enterprises throughout the intake process.

The expertise and prior project experiences of each stakeholder are detailed in their up-to-date profiles in this database. Matching is determined by:

- The specific needs of the project
- Stakeholder expertise and past project performance
- Availability and willingness to engage in the project

This methodical approach ensures that each project is paired with the most suitable stakeholders, maximizing the potential for successful outcomes.

7.4 Project Lifecycle Management

Our project management approach is structured around several key phases:

- Planning and Initiation
- Detailed project planning is conducted during the intake meeting.
- Clear objectives, timelines, and responsibilities are established.
- Key performance indicators (KPIs) are defined to measure success.
- Execution and Monitoring
- Projects are executed with regular check-ins to monitor progress.
- Staff members provide support to address any challenges.
- Real-time adjustments are made to keep the project on track.
- Evaluation and Reporting
- Upon project completion, outcomes are evaluated against the initial objectives.
- Success stories and lessons learned are documented.
- Detailed reports are created and shared with all stakeholders involved.

This lifecycle management ensures that projects are well-organized, objectives are met, and valuable insights are gained to inform future initiatives.

7.5 Process intake meetings

We defined a process for the intake meetings that can be used to effectively create projects for companies:

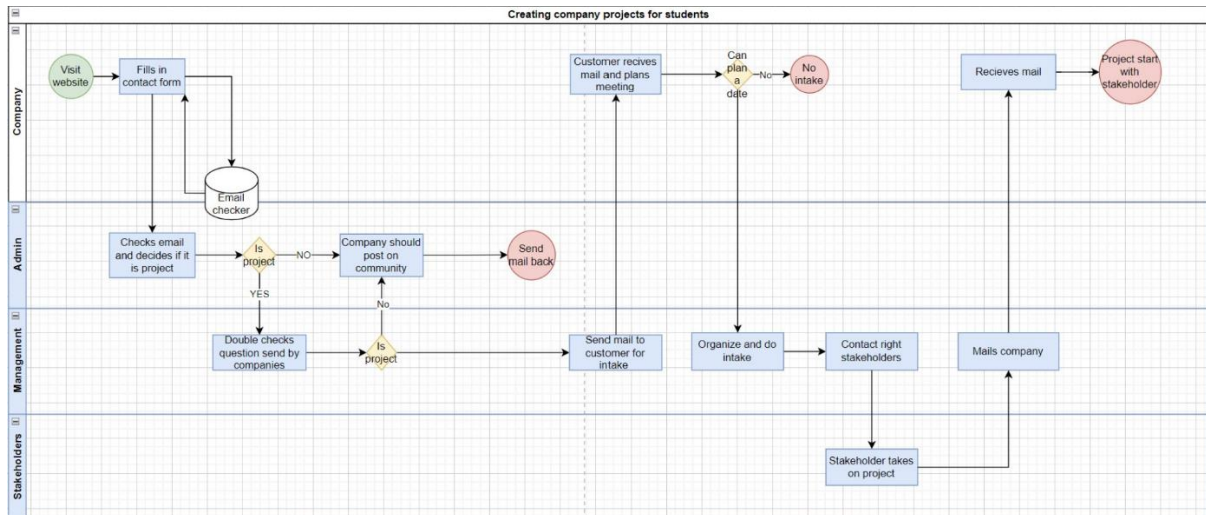


Image 18 Community functioning flow chart

8. Community and Website Management

Effective management of the community and website is crucial to ensure smooth operations and sustained engagement. The following outlines the key roles, responsibilities, and procedures for maintaining the community and website.

8.1 Roles that will be needed

Community Manager:

Since it is an online community, we will need someone to manage all aspects related to the community. The Community Manager plays a role in overseeing all community activities and ensuring a positive user experience. The disciplines needed are:

- **Engagement:** Actively engaging with community members and moderating discussions.
- **Content Management:** Adapting and publishing content, including articles, case studies, and success stories.
- **Events Coordination:** Organizing local events, webinars, and networking opportunities.
- **Feedback Management:** Collecting and analysing user feedback to inform community improvements.

Technical Support:

Technical Support is responsible for maintaining the functionality and usability of the website.

The disciplines needed are:

- **Technical Support:** skills in diagnosing and resolving technical issues related to web systems.
- **Customer Support:** Interpersonal skills to effectively communicate with clients and users.
- **Problem Solving and Analysis:** Ability to identify and resolve technical issues efficiently.

Operational Procedures

Regular Maintenance and Updates: Routine maintenance is essential to keep the website running smoothly and securely. This includes:

- **Software Updates:** Ensuring all website components are up to date to prevent security vulnerabilities and adding new features to enhance the community.
- **Security and Privacy Considerations:** Protecting user data and maintaining privacy are top priorities. Measures include:
 - **Privacy Policies:** Clearly communicating how user data is collected, used, and protected.

- Performance Monitoring: Continuous monitoring of website performance is crucial to ensure a good user experience. This involves:
 - Analytics Tracking: Using tools to monitor user behaviour and site performance.
 - Error Monitoring: Identifying and resolving errors or performance bottlenecks promptly.
 - User Feedback: Regularly soliciting feedback to identify areas for improvement.

By clearly defining roles and responsibilities and establishing robust operational procedures, we can ensure the effective management of our community and website, fostering a thriving environment for businesses and students to collaborate on circular economy initiatives in Breda.

8.2 Roles table

Task/Activity	Community Manager	Technical Support	Operational Procedures
Engagement with Members	R	I	I
Content Management	A	I	I
Events Coordination	A	I	I
Feedback Management	R	I	C
Website Maintenance	I	R	I
Troubleshooting	I	R	I
Feature Development	C	R	I
Regular Maintenance and Updates	A	R	C
Software Updates	I	R	C
Content Updates	A	I	R
Performance Optimization	I	R	I
Access Controls	I	R	C
Privacy Policies	A	R	C
Analytics Tracking	A	R	C
Error Monitoring	I	R	C
User Feedback	A	I	C
ROLES	MEANING		
Responsible (R)	Those who do the work to complete the task.		
Accountable (A)	The person ultimately answerable for the correct and thorough completion of the task.		
Consulted (C)	Those whose opinions are sought.		
Informed (I)	Those who are kept up-to-date on progress.		

Image 19 Responsibility roles table

9. Marketing and recommendations

9.1 Promotion Strategies

To make the community known, it is necessary to have a promotion plan with specific strategies for our target audience. *Bibliography [9]*.

- **Social Media Campaigns:** Using social media platforms to promote the community would be a good strategy to gain more visibility, especially among young people who are the most frequent users of these platforms. To ensure the success of this method, it will be necessary to consistently post interesting and quality content.
- **Partnerships with Educational Institutions and Businesses:** Seek collaborations with universities and educational institutions in Breda. These partnerships can involve guest lectures, collaborative projects, and internship opportunities focused on circular economy initiatives. Educational institutions can also help promote our community through their channels, reaching students interested in sustainability.
- **Events and Webinars:** Events and webinars can be organized to discuss the circular economy and the work done by our online community. This way, we not only promote our website but also introduce new people to recycling and sustainability. These events can feature guest speakers, panel discussions, and interactive workshops.

9.2 Growing the Community

Looking to the future, we must anticipate that at some point the community will grow, and we must be prepared to stimulate this growth and adapt to changes.

- **Fairs:** It would be interesting to attend sustainability, recycling, and environmental fairs, as well as innovation expos; and distributing promotional materials that highlight the benefits of joining our community. These events provide opportunities to network with people interested in joining the community or even with ideas for expansion.
- **Collaboration with Experts:** Partner with experts in the field of sustainability to promote our community. These individuals can share their experiences and insights through blogs, social media posts, and webinars, lending credibility and attracting more members.

By employing these strategies, we aim to build a robust and active community dedicated to advancing circular economy practices in Breda. Our marketing efforts will ensure continuous growth and engagement, driving the success of our initiatives.

9.3 SIPOC diagram: marketing of the community

To represent it visually, we make a SIPOC diagram and some ideas about how these processes can be implemented:

SIPOC DIAGRAM				
SUPPLIERS	INPUTS	PROCESSES	OUTPUTS	CUSTOMERS
Who supplies the process inputs?	What inputs are required?	What are the major steps in the process?	What are the process outputs?	Who receives the outputs?
Marketing Team	- Social media content - Budget for ads - Partnership proposals	1. Social Media Campaigns: Create and post content, run paid ads	Increased awareness and engagement on social media platforms	Local businesses and students in Breda
Educational Institutions & Local Businesses	- Contacts for partnerships - Channels for promotion	2. Partnerships with Educational Institutions and Businesses: Establish partnerships, promote community through channels	Enhanced credibility, increased reach, and collaboration opportunities	Students and professionals interested in sustainability
Event Organizers	- Event details - Speaker invitations - Promotion materials	3. Events and Webinars: Organize and promote events and webinars	Higher participation and engagement in events	Local community and sustainability enthusiasts
Recruitment Team	- Recruitment materials - Presentation content - Promotional items	4. Recruitment Drives: Conduct presentations, attend fairs, distribute materials	New members recruited from businesses and educational institutions	Businesses and students in the Breda region
Sustainability Experts	- Expertise - Insights for content - Networks	5. Collaboration with Experts: Partner with experts to share insights and promote the community	Increased credibility and valuable content that attracts more members	Community members seeking expert knowledge
Existing Community Members	- Referral incentives - Communication channels	6. Referral Programs: Implement and promote referral program	Growth in community membership through referrals	Current and potential community members

Image 20 SIPOC diagram marketing

9.4 Recommendations

Recommendations we think are necessary to make this a successful project when it will be implemented are as followed:

- Hiring students to work for the community: For schools that are interested in collaborating in the community we can set up projects for these schools where students need to manage the community and improve it for a project. This will save expensive costs on staff and will help collaboration between the school and the community.
- Defining projects for students: We also recommend defining some projects for the website and community for different courses. This way students can work on certain parts of the community or website based on a predefined project. Make some templates that are accepted by schools. This way it will be easier to recruit new students to work for the community.
- Integrate community with websites from stakeholders and schools: Stakeholders that are interested in the community and want to work together should post the community on their own platforms. This way it creates more interaction with students and will result in a more active community with more discussions.
- Creating a map of Breda where all circular initiatives are shown: In our project we realised that it was hard to see what all the circular initiatives in Breda are. By creating an interactive map on the website where you can see a list of all the circular initiatives in Breda and a map next to

it that shows where it is located and also a link to the website. This will help collaboration in Breda and give more insight into all the different initiatives that already exist.

Following up on these recommendations will result in a better end result and make sure that a thriving community is created for circular economy in Breda.

10. Conclusion

10.1 Summary of Key Points

The community and the website serve as a collaborative platform where students and businesses in Breda come together and tackle sustainable problems through circular economy practices. The main features we want in our online community and website are as followed:

- Community Discussions: Making sure there are a lot of discussions on circular economy challenges and solutions from local businesses but also discussions about general sustainability topics.
- Project Matching and Management: Creating profiles for stakeholders and businesses which results in a more optimized and streamlined process for creating projects.
- Content and Engagement: Creating engagement in the community by doing polls, posting new articles and giving updates about current projects.
- Roles and staff: We have outlined clear roles for staff members like operational procedures, technical support and community manager
- Marketing of the community: By being active on social media we would like to engage with the younger generation and mostly students or younger organisations. Also working together with schools and other educational institutions will be very helpful for creating a striving and active community.

If all these key points are well executed like we described in this document i think the community will be a success.

10.2 Acquired competencies and personal opinion.

I am a firm advocate for the global environment and always strive to contribute, within my means, to the reduction of climate change. That is why it was very interesting when I was offered the opportunity to work on this project, whose primary goal is circularity. Being part of an initiative that aligns with my personal values has been both inspiring and fulfilling.

I believe we have managed to design an interesting proposal that can be implemented in the future with a modest initial investment and a team of dedicated individuals committed to the project. The foundation we have laid is not only practical but also adaptable, allowing for growth and evolution as the community engages and the initiative gains momentum.

With this project, I have learned a great deal both professionally and personally. On a professional level, I had numerous opportunities to communicate with the client, gaining valuable experience in how to do so effectively. I also collaborated with my colleagues in a multidisciplinary team, taking into account each person's strengths and working to enhance those aspects.

It was also essential to have strong time management skills, as we worked autonomously and had to ensure that I delivered results to the client on time and in the proper format.

On a personal level, moving to a country I had never been to before and living on my own has undoubtedly helped me develop greater independence and maturity. It has also enhanced my ability to solve problems autonomously, as I've faced new challenges in an unfamiliar environment. Navigating cultural differences, adapting to a new way of life, and building a routine from scratch have all contributed to my growth as a more resilient and self-reliant individual.

Lastly, it is worth highlighting that this entire project was carried out in the Netherlands, which is not my home country. Thanks to this experience, I have significantly improved my communication skills in English and gained valuable insights into another culture, both in professional and personal contexts. This exposure will undoubtedly help me be more open-minded and adaptable when working with international clients in the future.

In conclusion, this experience has enriched me in many ways, which I find both highly satisfying and immensely valuable for my future professional endeavors. It has provided me with a broader skill set, deeper cultural understanding, and improved adaptability.

10.3 Call to Action

The following call to action can be used on the website to give community members an incentive to join. It sums up the most important parts of our community

Join us in our mission to foster a sustainable future through circular economy practices. Whether you are a business looking to implement sustainable solutions, a student eager to learn and contribute, or an expert in the field, your participation is vital. Sign up on our website, engage in discussions, and start a project that can make a difference in our community. Together, we can create a more sustainable Breda.

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- [9] *The Federation of Small Businesses*. (2022, Aug 17). Retrieved from <https://www.fsb.org.uk/resources-page/the-7-most-popular-ways-to-promote-your-business.html>

Appendix 1 – Additional information

Terms used in the document

To help community members understand key concepts related to circular economy and community management we have build

- **Circular Economy:** An economic system aimed at eliminating waste and the continual use of resources through principles of reuse, repair, refurbishing, and recycling.
- **Stakeholder:** Individuals or organizations that have an interest in the success of a project or community, including businesses, students, and sustainability experts.
- **Intake Meeting:** A structured discussion between a company and a community staff member to understand the company's needs and to plan a suitable project.
- **Sustainability:** Practices that meet the needs of the present without compromising the ability of future generations to meet their own needs.
- **Engagement Strategies:** Methods used to involve and motivate community members to participate actively.

Templates and Forms

Providing standardized templates and forms ensures consistency and helps streamline processes. Below are examples of essential forms:

Intake Meeting Form

Company Name:

Contact Person:

Email Address:

Phone Number:

Project Description:

Goals and Objectives:

Preferred Timeline:

Current Sustainability Practices:

Additional Comments:

Feedback Form

Name:

Email:

Feedback Type: (General, Technical Issue, Content Suggestion, Other)

Comments:

Rating: (1-5)

Contact Information

For any additional queries or support, community members can reach out through the following contact details:

Email: support@breda-circular.com

Phone: +31 76 123 4567

Address: Circular Economy Hub, Main Street 123, Breda, Netherlands

Social Media:

LinkedIn: [Breda Circular Economy Community](#)

Facebook: [Breda Circular Economy](#)

Instagram: [@BredaCircular](#)

By providing these resources, we ensure that community members have access to all the necessary tools and information to engage effectively and contribute to our shared sustainability goals.

Appendix 2 – Organization chart

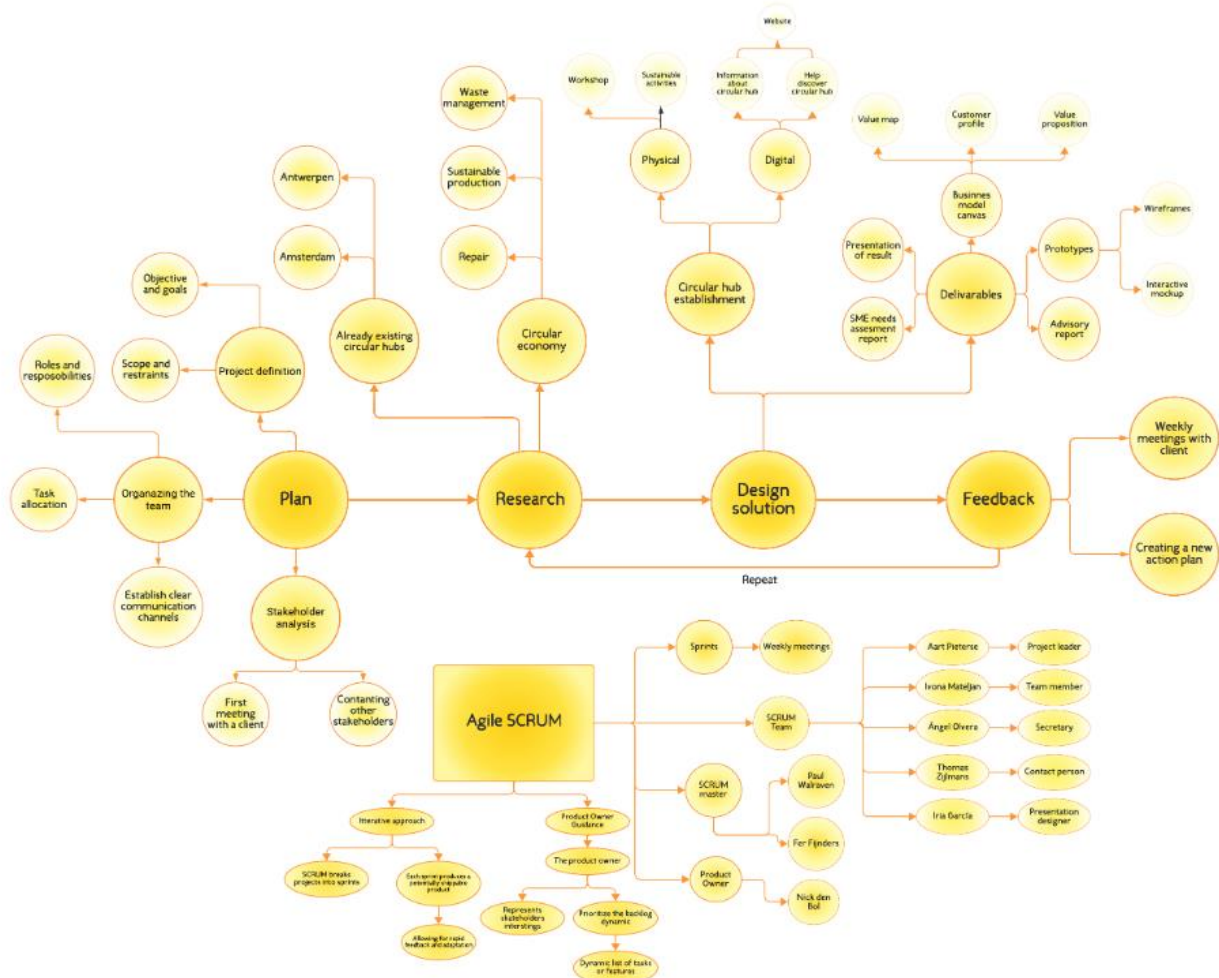


Image 21 Organization chart

Appendix 3 – Project contract

Project Contract: Circular Economy Advisory Report

Parties Involved:

This contract is entered into between student group urban innovation (Thomas Zijlmans, Aart Pieterse, Ivona Mateljan, Iria García Fernández and Angel Olvera Hernandez.) hereafter referred to as "the Contractor," and Nick den Bol, hereafter referred to as "the Client."

Date of Agreement:

09/04/2024

Problem Definition:

Main Problem:

"Breda faces a significant challenge in achieving its circular economy goals due to resource limitations."

Problem Statement for the Project:

"Breda faces a significant challenge as it lacks a comprehensive online collaborative platform dedicated to sustainable practices. This platform is essential for fostering synergy among companies, students, and the municipality to collectively address issues within the circular economy. The absence of such a platform impedes innovation and collaboration, hindering the city's progress towards a sustainable future."

Problem Solution:

Proposed Solution for the Project:

"The Contractor's objective is to develop an advisory report and design for an innovative online collaborative community. This platform will serve as a hub where companies, students, and the municipality converge to engage in constructive discussions and collectively tackle real-world challenges within the circular economy. By fostering a collaborative environment, this initiative aims to facilitate knowledge-sharing and problem-solving, empowering stakeholders to address pressing issues and drive sustainable solutions forward."

Project phases

Phase 1: Research

- Conduct comprehensive research to understand the current landscape of sustainable practices and circular economy challenges in Breda.
- Identify key stakeholders and gather their requirements.
- Compile relevant data and insights to inform the design and development of the online collaborative platform.

Phase 2: Designing

- Create wireframes and design mockups based on the insights gathered from the research phase.
- Develop a detailed design plan for the online collaborative community, focusing on usability and functionality.
- Gather feedback from stakeholders to refine the design and ensure alignment with their needs.

Phase 3: Development

- Develop prototypes of the online collaborative platform based on the approved design.
- Create an advisory report outlining the project scope, methodologies used, and proposed solutions for addressing circular economy challenges.
- Utilize agile scrum methodology with weekly or biweekly sprints to manage development tasks efficiently.
- Collaborate closely with the client to address any challenges and ensure the timely completion of deliverables.

Phase 4: Delivery

- Finalize the advisory report, incorporating feedback from stakeholders and ensuring its completeness and accuracy.
- Prepare for the final presentation about the project, highlighting key findings, methodologies, and proposed solutions.
- Hand in the completed advisory report to the client, along with any additional documentation or deliverables.
- Conduct the final presentation to the client and other stakeholders, summarizing the project outcomes and recommendations for future action.

Agile Scrum Method:

- The project group will follow an agile scrum methodology, with weekly or biweekly sprints.
- Each sprint will focus on specific tasks related to the design, development of prototypes, and creation of the advisory report.
- Regular meetings with the client will be held to discuss progress, address challenges, and gather feedback in a timely manner.

Deliverables

- Advisory report
- Presentation
- Website/community Wireframes
- Website/community prototype

Scope of Work:

Focus: The Contractor will focus on addressing the absence of a digital collaborative platform for discussing sustainability among stakeholders.

What We Will Do:

- Develop an advisory report for creating an online community around circular economy.
- Conduct stakeholder analysis.
- Create a business model canvas with a customer profile and value proposition.
- Research existing communities and sustainable opportunities/challenges in Breda.
- Design a website and community using wireframes.
- Develop prototypes for a digital space.

What We Will Not Do:

- Establish or implement the circular hub based on the advisory report.
- Conduct financial research on proposed ideas.
- Develop solutions for a circular economy outside of Breda.
- Make a functional website or community that can be used.

Expectations from the Client:

At the project's conclusion, the Client does not expect a physical deliverable but rather research findings and recommendations for creating an online community based on a circular economy and the need for companies to discuss their problems on this platform.

Terms and Conditions:

Timeline: The project is expected to be completed by June 11.

Communication: Regular updates will be provided to the Client throughout the project duration. Every 2 weeks there will be 1 or more updates about the project

Intellectual Property: Any intellectual property developed during the project will belong to the Client unless otherwise agreed upon.

Confidentiality: Both parties agree to maintain the confidentiality of project-related information.

Termination: Either party reserves the right to terminate the contract with written notice if the other party breaches its obligations.

Signatures:

By signing below, both parties acknowledge their agreement to the terms and conditions outlined in this contract.

Signature of Contractor 09/04/2024	Signature of Client 16/04/2024
	

HOW IT WORKS THE CIRCULAR ECONOMY?

- **CIRCULAR ECONOMY PRINCIPLES:** Circular economy aims to eliminate waste and pollution by maximizing the use, care, repair, reuse, and recycling of products, parts, and materials. It contrasts with the traditional linear economic model of "take, make, and dispose."
- **STRATEGIES:** Strategies for achieving a circular economy include smarter product design, product life extension, and adherence to the 3R principles: Reduction, Reuse, and Recycle.
- **ADVANTAGES:** The benefits of a circular economy extend beyond environmental and health concerns to include economic growth and employment opportunities.
- **EUROPEAN AND DUTCH COMMITMENT TO CIRCULAR ECONOMY:**

The European Commission and the Netherlands have taken significant steps to promote and implement circular economy principles. In the Netherlands, a focus is placed on managing e-waste through smart product design, resource conservation, and high-standard recycling processes.

- **WECYCLE: MANAGING E-WASTE COLLECTION AND RECYCLING:**
 - Wecycle, a nonprofit organization, manages the collection and recycling of e-waste in the Netherlands on behalf of producers and importers.
 - Wecycle collaborates with various stakeholders, including municipalities, shops, and installation companies, to ensure effective e-waste management.
 - Wecycle also addresses the proper removal and destruction of (H)CFCs, harmful substances found in cooling and freezing appliances, to mitigate ozone layer depletion and reduce global warming.

REFERENCE

Laura Golsteijn, Elsa Valencia Martinez, "The Circular Economy of E-Waste in the Netherlands: Optimizing Material Recycling and Energy Recovery", *Journal of Engineering*, vol. 2017, Article ID 8984013, 6 pages, 2017. <https://doi.org/10.1155/2017/8984013>

EU's Circular Economy Embrace: EU views circular economy (CE) as a solution to resource overconsumption, waste generation, and high carbon emissions, aligning with the Green New Deal for post-Covid-19 recovery.

Extended Producer Responsibility (EPR): EPR makes producers responsible for managing the take-back, treatment, and recycling of their products' waste, but its focus has often been on post-consumer stages.

EPR Mandates in EU: EPR is mandatory in the EU for various waste streams like WEEE, batteries, end-of-life vehicles, and packaging, with specific directives outlining responsibilities and targets.

EPR Implementation Variations: Implementation of EPR varies across EU countries, with diverse approaches to organization and responsibility assignment, including national compliance schemes or clearing house models.

EPR Challenges: Current EPR systems face criticisms regarding their limited scope, effectiveness in incentivizing eco-design, target setting, reporting transparency, treatment choices, and monitoring and enforcement.

Circular Economy and EPR Relationship: EPR is seen as a precursor to CE practices, aiming to increase producer accountability and address externalities, yet research on their interrelation remains limited.

Netherlands' EPR and CE Strategy: The Netherlands, with a long history of EPR, aligns its CE strategy with EPR objectives, aiming for a 50% reduction in primary raw material use since 2016.

Delphi Study on Strengthening EPR: A Delphi study in the Netherlands aims to derive insights on enhancing EPR to better support CE goals.

Historical Overview of EPR: EPR emerged in response to increasing waste volumes in the late 1980s, with various operational frameworks and modes of organization.

EU Policy and Law on EPR: EU directives define EPR requirements, including liability, economic responsibility, informative responsibility, and ownership of products, with member states having flexibility in implementation.

Critical Issues in EPR Debate: Key issues in EPR discourse include its impact on eco-design, cost allocation, target setting, reporting transparency, treatment choices, and monitoring and enforcement.

Opportunities for EPR in CE Transition: The emphasis on CE in policy discourse presents opportunities to explore changes in EPR to better support the transition to a circular economy.

REFERENCE

Campbell-Johnston, K., de Munck, M., Vermeulen, W. J., & Backes, C. (2021). Future perspectives on the role of extended producer responsibility within a circular economy: A Delphi study using the case of the Netherlands. *Business Strategy and the Environment*, 30(8), 4054–4067. <https://doi.org/10.1002/bse.2856>

Circular hub Amsterdam

Circular Hub Amsterdam is a place where companies can deliver separated cardboard and plastic waste for free, quickly, and without prior appointment. Afterwards, the waste is recycled to a high standard of quality.

The business park consists of:

- Nijssen Recycling
- Mondial Aad de Wit
- AA Verhuizers|Hubakee

Customer services offered include:

- Waste analysis: Advice on separating your company's waste, placement of containers, and organization of a circular recycling plan, as well as an analysis of the generated savings.
- Rental of various types of containers for commercial waste.

- Container emptying service
- Customized recycling reports.

Their website clearly offers all their services and rates, as well as various ways to contact the companies that make up the circular hub. It also explains the waste they process, which includes: Cardboard, used paper, plastic (they separate it by types), Organic, Wood, and Glass.

Website: <https://www.recycling.nl/circular-hub-amsterdam/>

Circular hub Antwerpen

It is a place where several second-hand stores are concentrated in a two-floor building conveniently located near the city center. Additionally, they organize various events such as yoga, film forums, repair cafes and various workshops.

Their website provides good information about the upcoming events and how to get to the building, however, it does not explain its internal functioning, such as how the various stores are related.

Website: <https://circuitantwerpen.be/>

Appendix 5 – Website research

Website research

How to keep user engaged in the website

In this section, following topics will be explored:

- How to attract users to the website (using principles from user psychology and marketing)
- How to start a community
- How to keep community active

Why is the topic of user psychology important?

“... (User psychology) assists in creating a design that not only attracts visitors but also encourages them to interact with the site, whether it’s filling out a form, making a purchase, or sharing content. Website visitors have specific expectations when they visit a website. If their experience aligns with these expectations, it fosters a positive relationship between the user and the website, leading to repeat visits, longer stay durations, and positive word-of-mouth, attracting more visitors.” (4)

In this part of the document, I will analyse how to use psychology principles to keep users engaged and provide the best user experience, with an accent on attracting companies in hopes of persuading them to switch to more circular practices.

When companies ask the question:

Why sustainability and why circular hub?

“Before a potential customer makes a decision, they weigh the pros and cons and lean toward the option that will provide the most satisfaction. What constitutes a pro and a con is based on inherent biases influenced by underlying values and beliefs.” (2)

Underlying values and beliefs

Through future stakeholder analysis and SME report, aspect of underlying values and beliefs should be analysed. Even though switching to circular practices will provide great benefit to the environment, do companies care about that? Advertising of circularity and sustainability should be provided through a lens of companies’ interest. If they care about monetary gain, how could circular practices help them achieve that? If they care about expanding their business and/or influence, can participating in projects and communities related to circularity help them reach their goals?

Weighing pros and cons

If the organization, such as circular workplace, wants to attract companies, there are some things that a website can provide to accomplish that.

Company needs to be familiarized with benefits of joining the circular hub, so they need to be clearly listed. Companies need to know that they will be given individual attention while working on their problems and there needs to be a showcase of other companies that the circular hub worked with and how did they help them (showcased through reports and/or testimonials).

Circular hub's services need to be presented as simple to use, so the complexity wouldn't discourage costumers.

Community behind the login, where they can participate in discussion forums, needs to be advertised on the front page. Community could be presented as an opportunity to network, collaborate and connect with other companies, participate in the projects and learn from other companies.

Knowledge hub is also something that needs to be highlighted. Companies need to know that they have a great resource of information about sustainable and circular practices readily available on a website. Information could consist of different articles with relevant topics and before mentioned testimonials and reports of other companies that the circular hub worked with and helped.

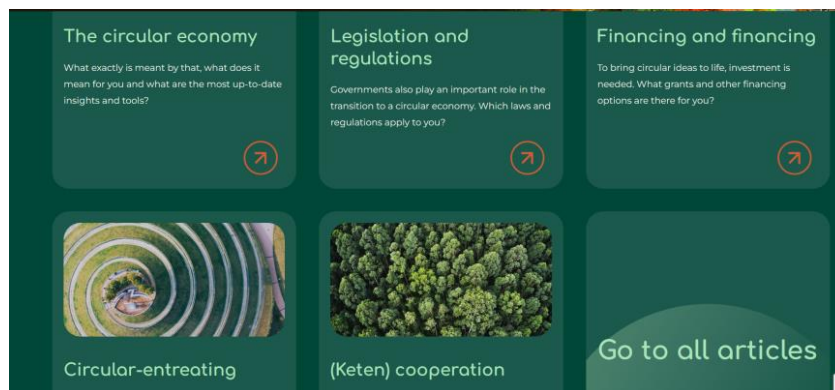
Visual design

Human brain is more attracted to the visuals, so using images and info graphics is a staple of a good website. Visuals could also provide additional context for the information, though graphs, flowcharts and similar. For example, if there is an advertisement for the forum that is accessible to members behind login, an image of said forum could be used to provide some information about its contents. Another use of visuals is breaking up the content into more digestible sections so that they are easier to read and follow.



Graph used by Breda Circular

There are a lot of psychology principles used for organizing the content of the website. Hick's law dictates that too many options confuse the user. That can be solved by reducing the number of buttons and applying filters for easier user navigation. In context of circular hub website, filters could be applied in the knowledge hub to sort out articles or in the forums to organize threads.



Articles in Breda Circular's Knowledge Centre are organized by the topic.

Visual hierarchy implies that the larger text is the one that the user will read first, hence it has to be the most important. Those are usually calls to action (Join now, Sign up...) or taglines that summarize what is the website used for (Your solution to...).

Last important psychology principle that could be of use is The Zeigarnik Effect. It suggests using check marks or progress bar to encourage user to finish creating their profile. That could be useful to incentivise new users to join.

Verify your profile You will receive 200 GuestPoints when you verify your home and profile	completed
Complete your profile Complete your profile and receive GuestPoints	completed
Complete your home Complete your home and obtain GuestPoints	completed
Activate your membership Activate your membership and earn 500 Guestpoints	completed
Contact 10 people You will receive 250 GuestPoints by contacting 10 people	+ 250 GP
Refer your friends When you refer a friend to HomeExchange, you get 50 GP for each friend when they complete their home and an additional 200 GP when they activate the membership. You can refer up to 10 friends and earn up to a total of 2,500 GP!	+ 2500 GP

Website Home Exchange offers rewards, which is “currency” used to finalize home swaps, for every stage of profile completion. Such system could also be implemented in circular hub website in some way.

Sources:

<https://cxl.com/blog/psychology-of-web-design/> (1)

<https://abmatic.ai/blog/psychology-behind-website-engagement-what-works-and-why> (2)

[\(https://www.contentbloom.com/blog/the-psychology-of-user-engagement-designing-content-for-interaction/\)](https://www.contentbloom.com/blog/the-psychology-of-user-engagement-designing-content-for-interaction/) (3)

<https://medium.com/theymakedesign/psychology-in-web-design-4ab44b913954> (4)

Building a community

First let's give some attention to how to build a community, then on how to implement it online.

How to build a thriving community?

- Before new people join in, there must be something there. People, threads, posts etc. People don't join in on an empty space. That is why the community and the general idea (some posts and thread) behind it needs to be showcased on the front page so that people have willingness to join.
- People must feel validated. The community has to attract and keep those who want to talk about circularity and environmental impacts. Validation could be achieved by recognition from their peers and could be implemented through reward system which will be discussed later.
- Curate members (companies) who want to actually spend time in the community to start things off. Every community is competing for attention with thousands of other communities and events. People are drawn to curation. Curation makes each member feel special (because they were chosen) and increases their trust that they'll enjoy interacting with the other members since they too were curated.
- Part of being a community is real-life events. They are crucial to develop relationships between members. Those could be events, webinars and seminars, projects where companies can join and collaborate and so on.
- When the first people join, they have no idea what to do because there are no examples. They don't know any other members yet. Therefore, in the early days everything must be facilitated by the hosts. See: <https://en.wikipedia.org/wiki/Astroturfing>

A person only becomes a member of a community when these things happen:

1. The community aligns with their identity,
2. They know how and are encouraged to participate,
3. There is a reward (intrinsic or extrinsic) for their participation,

Main sources:

www.cmxhub.com (a community for creating communities)

<https://www.cmxhub.com/blog/how-build-new-community>

Keeping an active community

Through conversations about creating a digital space for circular hub, one important question emerged: How to keep companies involved after their initial introduction to the circular hub?

Here are some ideas:

1. Discussion/Community forum
2. Project updates
3. Reward system
4. Leaderboard

Discussion/Community forum

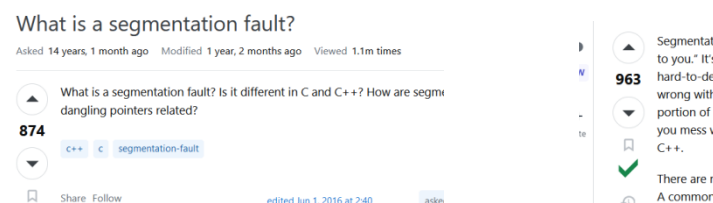
Discussion/Community forum is one of the requirements of this project. But, there is still some uncertainty of how it will be created. The best way to approach this problem is to look at existing popular forum.

Stack Overflow

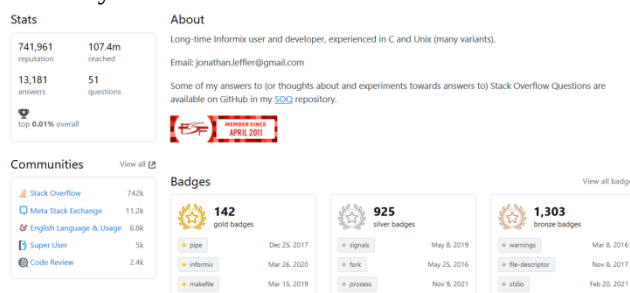
Stack Overflow is the most popular forum for software developers to come and ask questions related to their coding problem. It also serves as a wiki because past questions with solutions are being saved. Because it provides a service to a specific group of people, programmers, and are mostly work related, people keep coming back. The two initiators of Stack Overflow both had a large network because of they kept blogs. Those readers where invited to test the beta version, after which the site naturally grew.

It is organized so that every question has its separate thread and underneath are the answers to that question.

Users can upvote posts and comment, which gives them visibility and also puts the best comments on top. The person who asked the question can accept one of the answers as the best answer, which will then be indicated by a green checkmark by it.



User engagement is kept by reputation scores and gold/silver/bronze badges, which users learn the more they ask/answer questions. Looking at someone's reputation score can also be an indication of how trustworthy their answer is.

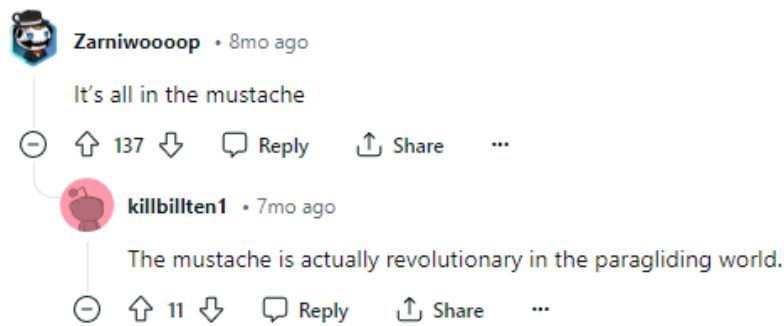


Reddit

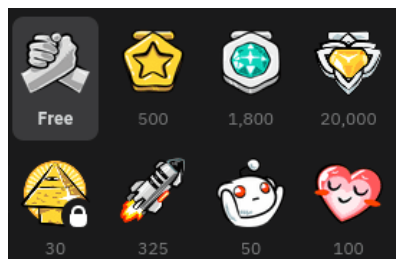
Reddit is a popular social media website that has similar characteristics as forum. Users can ask questions, share images and stories, and comment and interact with each other. Reddit organized posts in so called subreddits, such as *r/meirl* and *r/mildlyinfuriating* that are grouped by some common thread. Note the upvotes on the left and the comments below. Upvotes bring visibility to post or comment and earn “karma”, like reputation of Stack Overflow. A lot of karma on Reddit indicates that a lot of people have upvoted your posts and comments. Layout is minimal which doesn't bother its users.



User can get their own customizable avatars, which adds to their individuality even though Reddit is anonymous website.

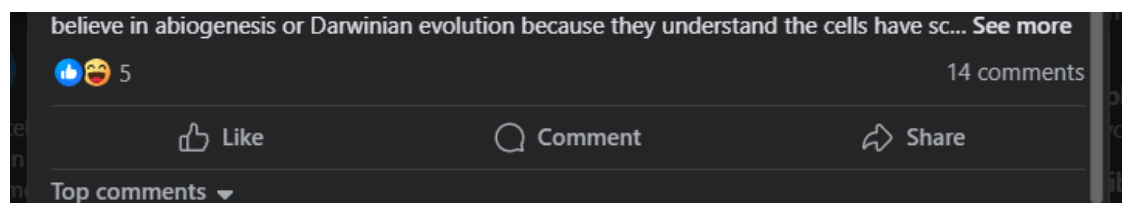


Reddit keeps members engaged with upvotes, badges, achievements and personal customizations and afore mentioned karma system.



Facebook groups

Facebook groups don't have an upvote system. You can like, but you cannot dislike someone's comment, which would in turn bring down its visibility. Only thing close to being similar to downvotes is negative no-text reactions which people can give with emoticons.



Also, there is no trace of achievements, badges or anything alike. Facebook Groups really is an outlier as no investment from Facebook is found to encourage its users to be more active. According to [slate.com](https://www.slate.com), a voting system was tested but never introduced. A quote from the article:

With the downvote, you can make someone's disagreeable opinion a little less visible—a functional dislike button

The upvote button was a competitor to the like button. Therefore, posts were mostly downvoted and fewer comments were posted. The tests were run in 2018 and again in 2019 never to be heard of again. Copying the voting system from Reddit is not as straight forward as it seems.

Other popular forum websites, such as Quora, employ similar systems for keeping user engagement: upvotes and likes on posts and comments, badges and rewards for participation.

Circular workplace forum could also employ that method.

Key insights – which ideas should we copy?

The previously discussed communities have a well thought out design, and we can profit from their ideas.

Users want to leave their mark:

- Ability to post and comment;
- Give visibility to posts and comments: upvote / downvote options

Users want to be recognized and valued by community members:

- Customizable accounts, for example: avatars and unique names
- Award system, for example: badges or credit scores

Project Updates

One other idea for keeping users engaged is making dedicated space for different projects that companies and other participants are currently working on. Those projects could be company's current work with circular hub on solving their inquiry or independent project by companies or sustainable initiatives that help promote or improve circularity.

Companies can provide updates on their projects on these spaces. There could also be dedicated forums related specifically for singular projects where other companies could ask questions about the progress or company that is working on project can ask for advice which will be provided either by members of circular workplace or other companies. There could also be an option added so that companies can "follow" projects that they are interested in and receive updates either by email or on their circular hub account. That way, companies would be more active on the website and knowledge would be openly share among members.

Reward system

As previously mentioned in Community/Discussion forum section, a lot of community based websites employ some kind of reward systems (badges, reputation, karma...). That incentivises users to be more active so they would be more recognized and valued by their community members. While simple application of award principle in a forum setting could be implemented in the first stage of website development, there are further possibilities with that feature that will be shortly discussed.

Forum rewards

Some ideas for rewards regarding participation in forums could be: first (5th, 10th, ...) post, first (5th, 10th ...) comment, their post/comment received 10 (20, 50, ...) upvotes, they answer was accepted as the best answer on one of the threads (from Stack Overflow example), ...

Project Updates section rewards

If idea of separate sections for different ongoing projects is implemented, there are some kind of reward system that could be employed there as well. For example: shared their first project, updated their project

for the first (5th, 10th, ...) time, followed one (5, 10, ...) other projects, commented on one (5, 10, ...) other projects, joined a project lead by other company and/or sustainable initiative and so on.

Further possibilities for rewards

Even though this reward system is outside of the scope of this project, since for its application statistics and data from different companies would be needed, one last idea is rewards and badges based on the current levels of circularity that different companies have. Companies could be graded on different aspects of circularity or on their current circularity percentage and given awards based on that and those rewards would be displayed on the website. Again, that idea is outside the scope of the project, but definitely something that could be added in the future in some way.

Leaderboards

Relating to the last idea from “Further possibilities for reward”, instead of rewards for their circularity level, something like a leaderboard could be implemented. That could be a future idea, a leaderboard based on circularity levels, but an idea for the simpler leaderboard based on user activity could be developed during this project. That way users have even more initiative to be active in the community, if their activity level would be displayed and compared to other companies in a form of a leaderboard.

Principles of good UI/UX – building a good and appealing website

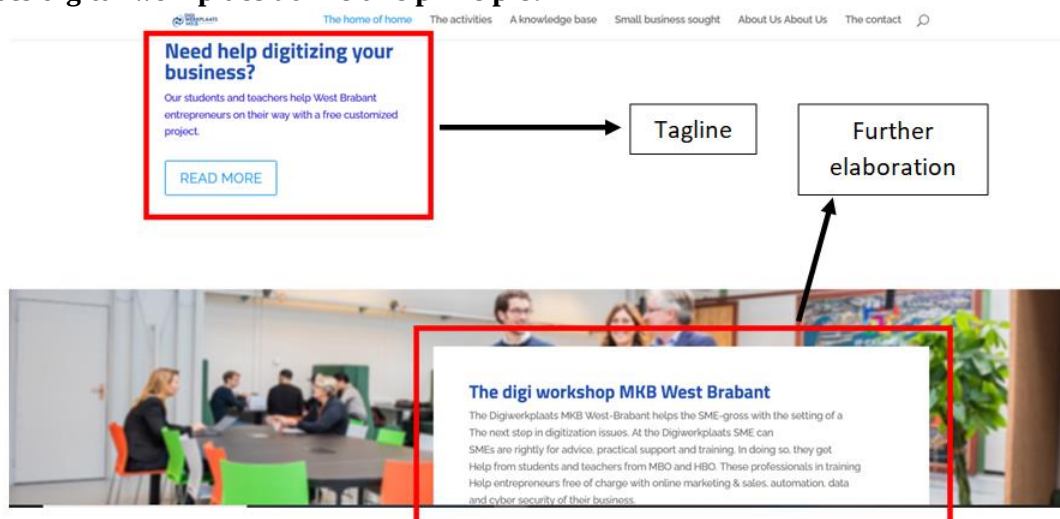
“UX refers to the user’s journey through an application or process. UX designers focus on the overall form and function of a product or technology. UI focuses on how a product’s surfaces look and function. UI designers work with the tangible and visible elements of the process.”(3)

Know your target audience

Target audience of a digital space for circular workplace would be companies with questions about circularity and sustainability.

- At the top of the website, it should be clearly stated that circular workplace is here to help companies with their circular problems (sort of like a tagline)
 - Example: Circular hub Breda – solution to all your circularity questions
- Under that there should be further clarification about work of the circular workplace and what will companies get by contacting the workplace and joining the community. Text should be clear and to the point, not to overwhelm the user with information, but it should still keep them engaged.
 - Example: Circular workplace Breda is a community of students and professionals, here to help your company progress towards more circular practices. Come to us with your questions and through individual consulting we will bring you to your solution. Join the forum and discuss your journey with other members and learn from other examples through our knowledge hub.
 - Not the final text, but an example of aspects that are important
 - What is circular hub? What will company gain?
 - Keep engagement and interest -> What forums? What knowledge hub?

How does digital workplace utilize this principle?



Keep design simple and consistent

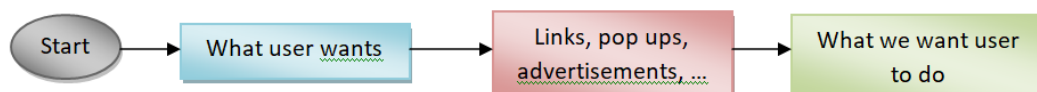
While sometimes we have a need to put as much information on the website as possible, that would be overwhelming to the user. Perfect user interface needs to be uncluttered and free from unnecessary elements.

- **Hick's law** (mention in visual design section in user psychology chapter) - cutting unnecessary UI components helps user choose the best option faster and increases user website interactivity
- Focus on visual hierarchy:
 - **Size** - visitors notice larger elements more quickly
 - **Colour** - bright and vibrant colours are more likely to attract visitors' eyes than nude shades.
 - **Alignment** - aligning website contents and elements makes a website more scannable
 - **Proximity** - things are kept together, believed as relevant, or connected
 - **Typography** - font style, weight, and size add a new addition to the visual hierarchy in the design
- Organize the most important contents in an '**F**' or '**Z**' **shape Pattern**. Using F shape is commonly used in Text-heavy designs. Besides, 'Z' is used on minimal text pages.
- Keep website design consistent – colours, shapes, fonts and so on need to be the same throughout the entire website

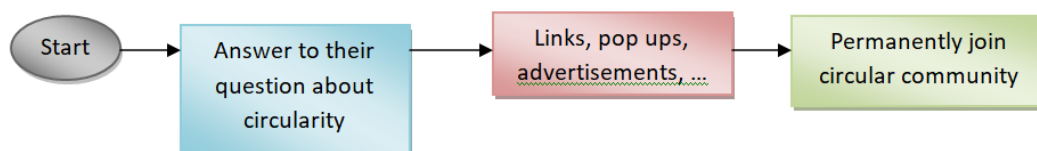
Information architecture

Information architecture is a sub category of UX design, but all the UX deliverables, such as wireframing and prototypes find their footing in good information architecture design. Focus on building a good information architecture has many benefits, such as reinforcing credibility, improving productivity, boosting SEO (search engine optimization – more on that later) and many more.

Summarization of main principle of information architecture is the following:

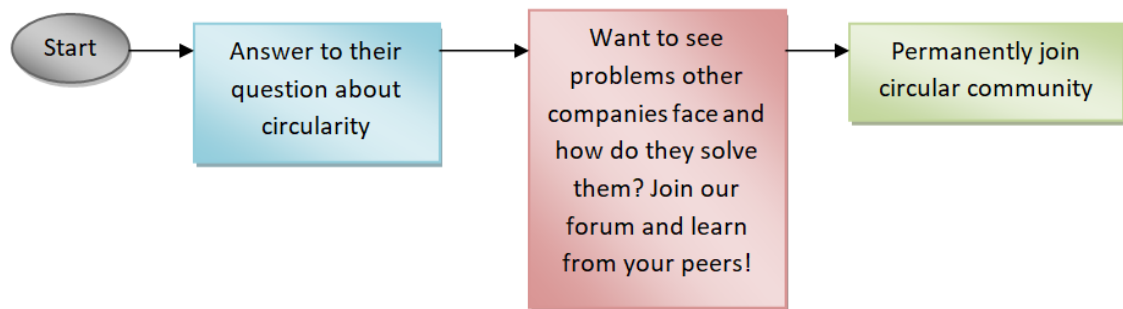


In case of the circular workplace, graph would go something like this:



Obviously, one way to get the company to become permanent part of circular workplace is to provide it with good answer to their question about circularity, so that they keep coming back. But, since focus of this part of the project is a website, I think using some clever information architecture could lead companies to at least get familiar and maybe make an account on their first visit to the website.

Underneath is a very simplified visualization of the principle:



Sources:

<https://dorik.com/blog/how-to-create-ui-and-ux-for-your-website> (1)

<https://uxplanet.org/5-simple-ways-to-improve-your-website-ui-for-developers-d5ebc51df9ad> (2)

<https://blog.hubspot.com/marketing/ux-user-experience> (3)

<https://wpsocialninja.com/website-communication/> (4)

<https://www.lyssna.com/blog/information-architecture-in-ux/> (5)

Increase visibility of website

Two topics that should be explored more in depth relating to increasing visibility of a website:

Search Engine Optimization (SEO)

When people search anything related to circularity in Breda, we want our website to pop up first, not to get lost deep in Google pages. That's where SEO comes into play. SEO principles help website to be picked up by Google's algorithms and be displayed near the top. (See links (1) and (2))

Visibility of article

One clever way to increase visibility of the website is through articles. If there is an article published on our website about certain topic, we want that article to pop up first in the Google searches.

Using the example from digital workplace that Yvette gave us, company faces fishing issue and they are unfamiliar with it. They Google "What is fishing" and article published by the Digital Workplace pops up. Person reads the article and at the end they find advertisement for Digital Workplace (ex. If you need help to solve your issue, contact digital workplace).

<https://searchengineland.com/guide/what-is-seo> (1)

<https://developers.google.com/search/docs/fundamentals/seo-starter-guide> (2)