Executive Report - PSP2

Introduction

The EcoLink initiative was created in response to the growing demand for resources that promote and facilitate sustainable practices across various social domains. EcoLink aims to connect people and organizations through an easy-to-use digital platform that promotes tangible sustainability initiatives, with an emphasis on education and environmental awareness.

Justification

The motivation for creating EcoLink stemmed from the substantial increase in demand for viable solutions aimed at advancing sustainability. We observed a shortage of interactive resources that visually and effectively engage the public in eco-friendly behaviors. By providing services such as environmental indicator visualizations and the registration of sustainable efforts, EcoLink meets this need in a welcoming and accessible way. These services help attract new projects and educate users.

SMART Objective

Our primary goal is to create a functional prototype of EcoLink by January 2025. To ensure the project's success, we set a target of achieving a minimum satisfaction rate of 80% in tests involving ten or more consumers. This objective helped maintain focus and define the prototype's key features to achieve accessibility and satisfaction.

Product

EcoLink was designed as an application that incorporates basic sustainability principles, with functionalities tailored to meet diverse user needs. Its structure is organized around three main pillars:

- **Sustainable Marketplace:** Reduces waste and promotes the circular economy by facilitating the sale of eco-friendly products and services.
- **Environmental Education:** Makes learning more accessible and effective by offering interactive guides on sustainable practices and proper waste disposal.
- **Engaged Community:** Encourages people to share best practices and ideas using tools to monitor environmental impact and increase engagement.

Among its main features is an environmental impact indicator visualization system, which helps users understand their individual impact and ongoing initiatives. The app also provides an interactive registry for sustainable practices, allowing users to share and consult projects related to environmental preservation and sustainability.

These features were designed to engage both laypeople and sustainability professionals, fostering the exchange of knowledge and experiences.

Stakeholders and External Factors

We included the general public, focusing on young adults and students, as well as partner organizations such as environmental NGOs and tech startups. Companies and the government were also considered, especially in forming partnerships that can support and promote the ecological practices encouraged by EcoLink. This approach ensures that the app aligns with the interests and needs of different social groups, reinforcing the importance of collaboration for sustainable impact.

Assumptions and Risks

During development, we established some fundamental assumptions to ensure EcoLink’s success, such as the team’s continuous access to appropriate technological tools and the target audience’s willingness to try the platform. These conditions were deemed essential to guarantee the project’s feasibility and impact.

However, we also identified risks that could compromise the prototype's performance. One major challenge was ensuring the design’s usability, as the audience might not find the interface intuitive enough. Another risk involved the limited development time, which made implementing advanced features difficult. To mitigate these risks, we adopted strategies such as continuous feedback and simplifying functionalities, prioritizing the user experience.

Benefits

The benefits of EcoLink go beyond the app itself. We believe the tool can expand knowledge about sustainable practices, encouraging positive changes in individual and collective behavior. Additionally, it will facilitate partnerships among ecological initiatives, strengthening collaboration networks. As a result, EcoLink can become an accessible tool for both laypeople and experts, promoting engagement across different age groups and knowledge levels.

By providing an accessible resource, users are encouraged to engage in eco-friendly practices and foster increased environmental responsibility.

Requirements and Constraints

To ensure EcoLink's functionalities' success, we established specific specifications, including developing a user-friendly and responsive interface, search capabilities filtered by category, and an environmental impact indicator dashboard. However, the initiative has limitations, such as the need to operate on a tight budget and limited access to resources for advanced prototyping. By selecting the most crucial features for the target audience and using open-source technology, these limitations will be addressed.

Team and Deliverables

Our team, composed of Production Engineering students, divided tasks according to each member's specializations and interests. Task division was essential for the efficient execution of the project, as each part of the development required specific skills in design, programming, and management.

The deliverables group focused on developing the PM Canvas, defining the main functionalities, creating the Product Backlog, designing, and implementing screens for the Marketplace, including sustainable product listings, correct disposal awareness, donations, rentals, loans, and information about hazardous waste. Screens for idea sharing, user communication, gamification, and impact tokens were also developed, with usability testing and final adjustments. A total of nine screens for desktop and mobile will be delivered, with the complete prototype reviewed for both versions.

Timeline and Costs

We structured the schedule with distinct time allocations for prototyping, testing, and revisions for each phase. To reduce costs, especially for design tools, we sought free alternatives and simplified certain procedures, such as outsourcing services.

Lessons Learned

During EcoLink's development, we observed several points that helped overcome challenges and improve the project's execution. One key takeaway was the importance of incorporating continuous feedback from the early stages of development, which allows for problem correction before they become significant obstacles. Feedback was crucial for adapting the interface and ensuring the app was intuitive.

Another significant learning point was the need to establish clear processes for integrating the app's modules. To address integration difficulties, we adopted an iterative approach, prioritizing alignment among the teams responsible for each module and conducting regular reviews.

The limited timeline showed us the importance of prioritizing tasks and focusing on what would truly add value to the user. Organization and discipline in task division were also essential to deliver the prototype on time.

Among the challenges encountered during development, we saw the importance of being flexible and adapting solutions as issues arose, ensuring that the final product met expectations.

Another crucial point was communication among team members to stay aligned with the goals. Additionally, collaboration among all team members was essential for effectively dividing tasks.