ECOFLEX

With the support of the Energy Transition Fund

Deliverable 1.3 Report on ECOFLEX website

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Author (s): Paul Bricout/TWEED. Stella Arapoglou (VUB)

Abstract for dissemination (PU)

This document reports on the design, development and launch of the ECOFLEX website. Specifically, the report includes the technical development, the design and the structure of the website.

Contents

1. Development of the website

1.1. Technical points

To build the website, we have used the **Paddle CMS Platform** (https://www.paddle.be), proposed by VUB.

> *"With the Paddle CMS (Content Management System), we make sure that non-profits and governmental organisations have safe, accessible websites and intranets. The Paddle CMS platform is a content management system based on Drupal, developed in collaboration with our end-users. Your Paddle CMS setup can be expanded upon with additional modules, based on your website's and organisation's needs."*

The link to promote the website in any communication (press release, social media, email, …) is http://ecoflex-project.be (url bought on https://www.one.com). This one points towards https://ecoflex.paddlecms.net (redirection).

1.2. Design

We created the **logo of Ecoflex project**, bought all the **pictures** of the website and have updated the **banners**; with the expertise and help of the infographist of Cluster TWEED.

We created different versions of the logo to have a discussion and choose the best one.

1.3. Structure & content

We defined the following structure for the website :

Page	**Content**
Homepage	Description of the **mission**, **objectives** of the project, and links to **news** and **events**.
Mission	Detailed description of our mission.
Objectives	Description of our **four main objectives**, with **dedicated icons** that could be reused in PowerPoint presentations.
Partners	Link to a presentation of each **partner** : general description, project role, specific skills, team for the project and general contact.
Living labs	Link page to a description of our **living labs** : Green Energy Park & Negundo business center.
News & events	Dedicated page to **news** and **events** of the project, but also to interesting news and events of all partners.
Newsletters	Form for visitors to register to the future **newsletters** done by clusters Flux50 & TWEED.
Contact	Short contact page with a link to https://mobi.research.vub.be/evergi-homepage

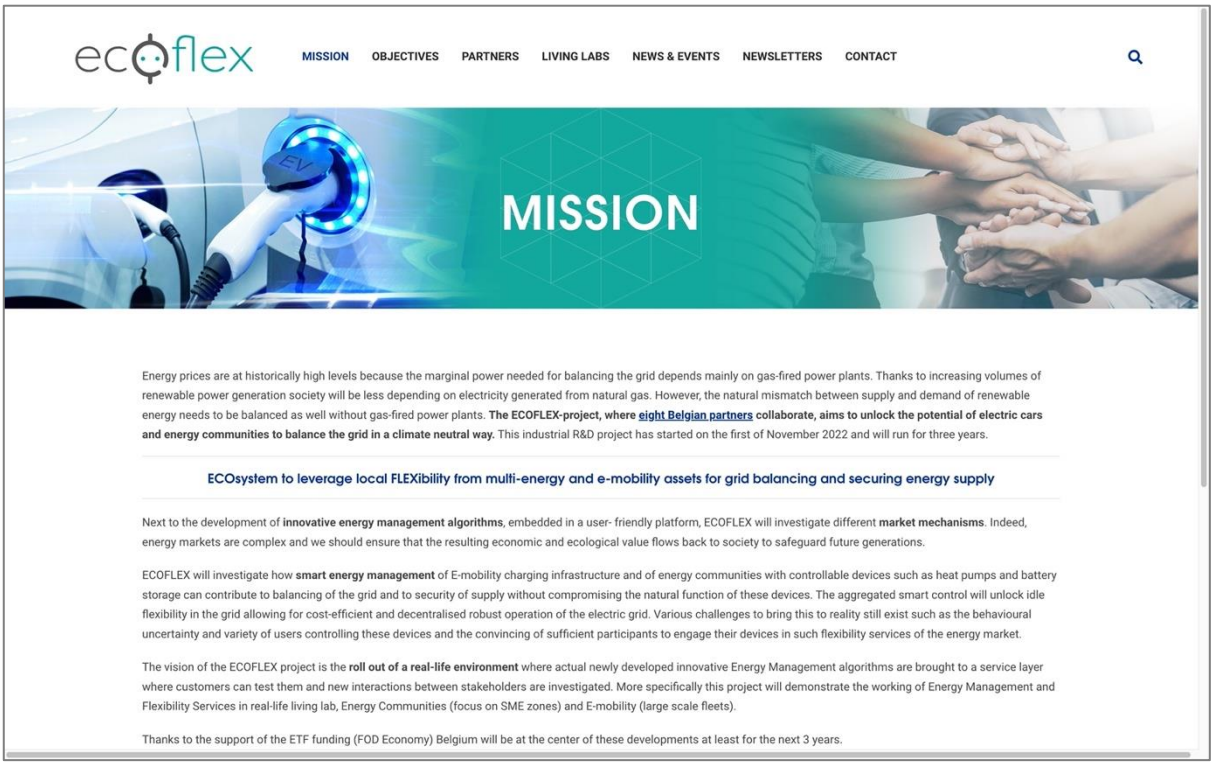
For the homepage, we designed an animated gif picture, with the ecosystem of Ecoflex project. We will also reuse this one in other communication channels.	

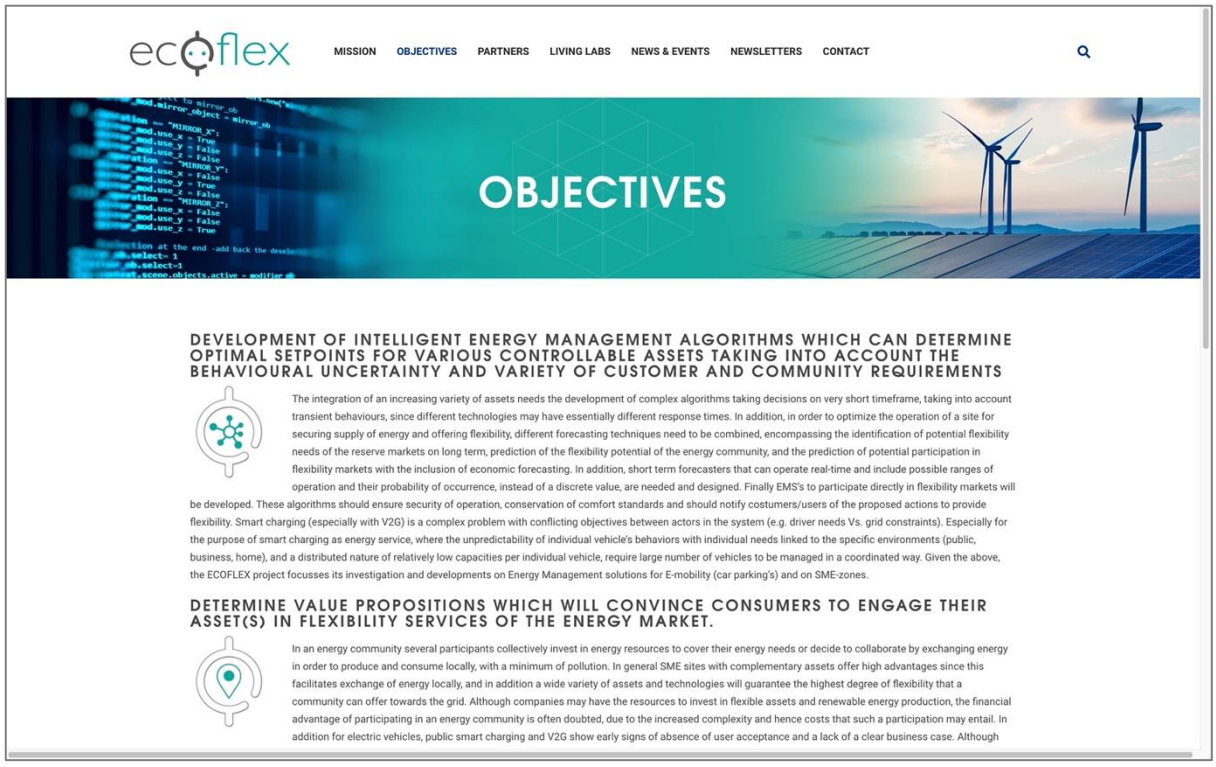
To obtain a good result for the design, structure and content of our project website, we have made a **benchmarking of other Paddle websites**: https://www.paddle.be/en/references

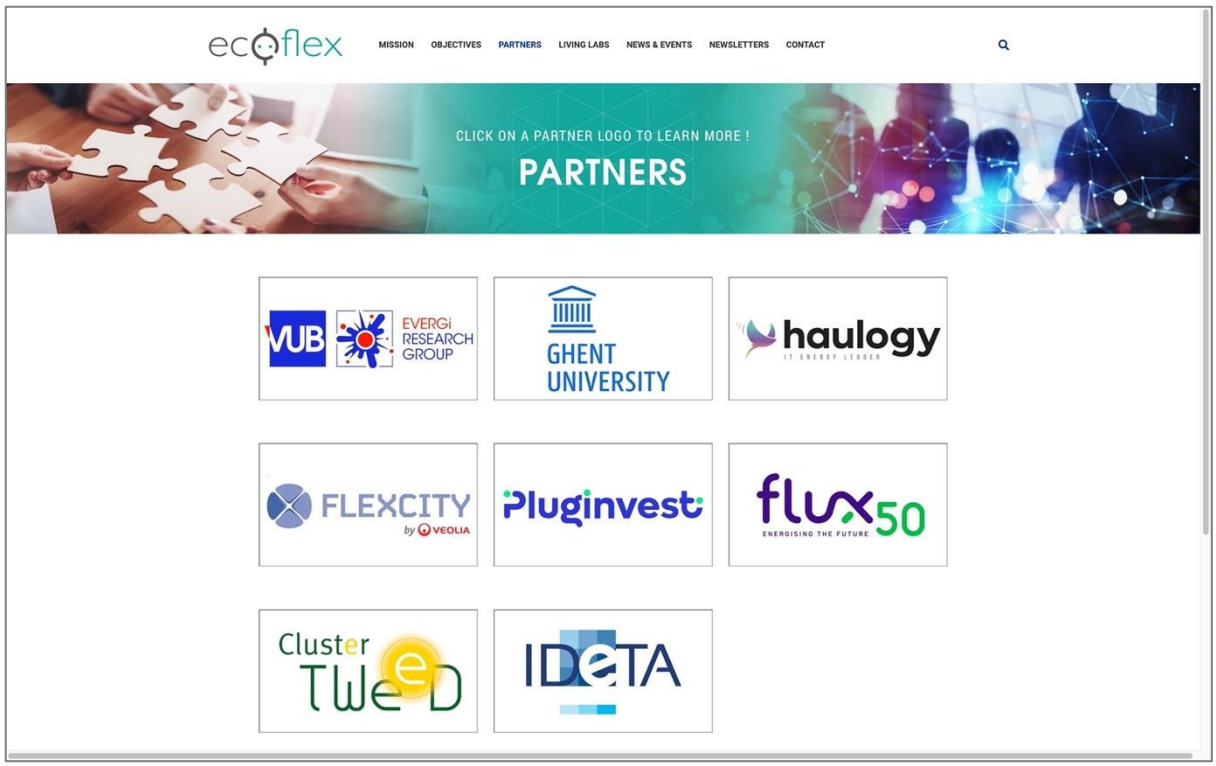
We also have activated the help of **Paddle Support** to resolve some technical points or the obtain information about modules that could be installed in the back-office of the website.

Different **meetings and exchanges between partners** were needed to progressively update the website project, get inputs and to be agree on the final result.

2. Printscreens




ecoflex
MISSION
OBJECTIVES
PARTNERS
LIVING LABS
NEWS & EVENTS
NEWSLETTERS
CONTACT
OBJECTIVES
DEVELOPMENT OF INTELLIGENT ENERGY MANAGEMENT ALGORITHMS WHICH CAN DETERMINE OPTIMAL SETPOINTS FOR VARIOUS CONTROLLABLE ASSETS TAKING INTO ACCOUNT THE BEHAVIOURAL UNCERTAINTY AND VARIETY OF CUSTOMER AND COMMUNITY REQUIREMENTS
The integration of an increasing variety of assets needs the development of complex algorithms taking decisions on very short timeframe, taking into account transient behaviours, since different technologies may have essentially different response times. In addition, in order to optimize the operation of a site for securing supply of energy and offering flexibility, different forecasting techniques need to be combined, encompassing the identification of potential flexibility needs of the reserve markets on long term, prediction of the flexibility potential of the energy community, and the prediction of potential participation in flexibility markets with the inclusion of economic forecasting. In addition, short term forecasters that can operate real-time and include possible ranges of operation and their probability of occurrence, instead of a discrete value, are needed and designed. Finally EMS's to participate directly in flexibility markets will be developed. These algorithms should ensure security of operation, conservation of comfort standards and should notify costumers/users of the proposed actions to provide flexibility. Smart charging (especially with V2G) is a complex problem with conflicting objectives between actors in the system (e.g. driver needs Vs. grid constraints). Especially for the purpose of smart charging as energy service, where the unpredictability of individual vehicle's behaviors with individual needs linked to the specific environments (public, business, home), and a distributed nature of relatively low capacities per individual vehicle, require large number of vehicles to be managed in a coordinated way. Given the above, the ECOFLEX project focusses its investigation and developments on Energy Management solutions for E-mobility (car parking's) and on SME-zones.
DETERMINE VALUE PROPOSITIONS WHICH WILL CONVINCE CONSUMERS TO ENGAGE THEIR ASSET(S) IN FLEXIBILITY SERVICES OF THE ENERGY MARKET.
In an energy community several participants collectively invest in energy resources to cover their energy needs or decide to collaborate by exchanging energy in order to produce and consume locally, with a minimum of pollution. In general SME sites with complementary assets offer high advantages since this facilitates exchange of energy locally, and in addition a wide variety of assets and technologies will guarantee the highest degree of flexibility that a community can offer towards the grid. Although companies may have the resources to invest in flexible assets and renewable energy production, the financial advantage of participating in an energy community is often doubted, due to the increased complexity and hence costs that such a participation may entail. In addition for electric vehicles, public smart charging and V2G show early signs of absence of user acceptance and a lack of a clear business case. Although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ENERGISING THE FUTURE
Cluster TWEED
IDETA

ecoflex MISSION OBJECTIVES PARTNERS LIVING LABS NEWS & EVENTS NEWSLETTERS CONTACT

LIVING LAB - GREEN ENERGY PARK

The Green Energy Campus endeavors to develop and implement a CO2-neutral, self-sufficient multi- energy grid that also serves as a living lab to develop, test, and validate market ready products and services for microgrids in real-life conditions. This Green Energy Park will be supported and controlled by a communication network with a glass fiber backbone and is as a living lab of unique size in Europe. It will not only consider advanced technologies and -control but also look at regulatory aspects and innovative exploitation models considering all stakeholders that are involved in building, running and exploiting the microgrid of the future.

The Green Energy Park will host interconnected prosumers including a large green data centre (>1 MW thermal producer), an incubator for start-ups, a large parking lot (150- 400 vehicles) with electric charging infrastructure and 70 companies from different sectors. In addition, it will integrate renewable energy production systems (3-4MW solar, 3-4MW Wind Energy), cogeneration (or Combined Heat Power CHP) and energy storage capacity (batteries and vehicle-to-grid), and it will manage its own supply and demand of both thermal and electric energy to decrease its dependence on the grid. The operational microgrid will be designed towards minimal environmental impact and optimal reliability, safety, security and cost-effectiveness and will allow the integration of e-mobility. The living lab will be conceived for accommodating a wide range of technologies, offering an experimental and versatile platform for the Flemish industry, and will be used to implement and assess innovative products and services that meet the challenges of the grid of-the-future

CONTACT

- **Address :** Z1 Researchpark 160, Zellik, Vlaanderen 1731, BE
- **Email :** evergi@vub.be
- **Website :** https://www.greenenergypark.be