H2020-LC-SC3-EE-2019

EUROPEAN COMMISSION

Executive Agency for Small and Medium-sized Enterprises

Grant agreement no. 893857

frESCO

New business models for innovative energy services bundles for residential consumers

Deliverable D8.1
Project Website and Visual Entity

Funding scheme	IA – Innovation Action
Project duration	42 months (1 June 2020 – 30 November 2023)
Project adviser	Ulrike Nuscheler - EASME
Coordinator	CIRCE – Fundacion Circe Centro de Investigacion de Recursos y Consumos Energeticos
Consortium partners	CIRCE, S5, EI-JKU, CARTIF, UBITECH, UBE, KONCAR KET, KRK, COMSA, LCTE, VOLT, VERD, IOSA, RINA-C
Website	http://fresco-project.eu
Cordis	https://cordis.europa.eu/project/id/893857

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ACKNOWLEDGMENT

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n. 893857

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Deliverable D8.1
Project Website and Visual Entity

Deliverable number	D8.1
Deliverable name	Project Website and Visual Entity
Lead beneficiary	RINA-C
Description	Description of the set-up of the frESCO website and its main features and the creation of the project social media
WP	WP8
Related task(s)	T8.1 and T8.3
Type	Report
Dissemination level	PU
Delivery date	30.09.2020
Main author	RINA-C

Document history

Version	Date	Changes	Author
V1 – first draft	18.09.2020	N/A	RINA-C
V1 – reviews	21.09.2020		S5 and CIRCE
Final version	28.09.2020	Privacy contents and Annexes	RINA-C
Final deliverable submission	05.10.2020	Minor	CIRCE

ABBREVIATIONS

Abbreviation	Meaning
WP	Work Package
ESCO	Energy Service Company
DSO	Distribution System Operator
M	Month
B2B	Business to Business

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EXECUTIVE SUMMARY

This deliverable aims at describing frESCO's website, its main features and the purpose for which it was conceived. The main social media pages that have been created to support the Communication & Dissemination activities and which are directly linked to the project website, will also be introduced in this document.

1 INTRODUCTION AND OBJECTIVES

Deliverable D8.1 – "*Project Website and Visual Entity*" is a public document produced in the framework of WP8 "*Communication and Dissemination activities*" and it is mainly related to Task 8.1 "*Project Identity and Communication Mix*" and Task 8.3 "*Dissemination and public communication actions*". The main objective of WP8 is to promote frESCO among different stakeholder groups (ESCOs, aggregators, DSOs, regulatory bodies and authorities…) through the dissemination activities to raise their interest and awareness on the project.

The purpose of this document is to describe the design of frESCO's website, its main features and to introduce the social media pages created for the project. The website and the social media accounts represent the main tools and channels through which the Consortium will disseminate the project results.

The website represents for the project the main portal where everyone can discover the information related to the project, the objectives, the main results, the expected impact as well as downloadable information, such as project reports, guidelines, promotional material and presentations for external use by professionals, media and consumers.

frESCO website was released in September 2020 (M4) by RINA-C and will be constantly updated along the project development with the contribution of all the project beneficiaries. frESCO social media accounts were opened in June 2020 (M1) and will be enriched during the life of the project with two posts per month related to the main activities carried out.

2 BRAND IDENTITY

FRESCO's website is consistent with the project's brand identity and it is developed using the same colour palette of the project's logo identified and voted on by the partners during the first Kick Off Meeting (KOM) held in June 2020. The same procedure will be chosen to create the communication and dissemination materials in order to allow an easier identification of the specific graphic design from the public, which can also be recognized in the deliverable template.

Figure 1. FRESCO Colour Palette

3 WEBSITE OBJECTIVES & TARGETS

FRESCO's website has been developed in English since it is the official language of the project and also because in this way it is possible to reach a wider audience.

In particular, frESCO website aims to:

- Provide a clear and easy description of the project
- Present the consortium
- Communicate the main objectives of the project to a non-specialised audience
- Communicate the competitive advantages of the project to the above-mentioned target groups
- Guarantee public access to the results of the project
- Guarantee the exploitation of the results of the project

- Provide material for press and specialised media professionals and to collate the appearances of the project on other media

4 STRUCTURE

4.1 The Website Management Tool

frESCO's website has been developed in WordPress, a free and open-source content management system (CMS) based on PHP and MySQL.

It was chosen because it is used by more than 60 million websites[1], including 30.6% of the top 10 million websites as of April 2019[2], which makes WordPress the most popular website management system in use. It stores content and enables a user to create and publish webpages, requiring nothing beyond a domain and a hosting service. Moreover, it has standard features that are functional and easy to use, such as content authoring, reliable performance, and excellent security.

Figure 2. WordPress Logo

4.2 Overview

The project website address is **www.fresco-project.eu**.

As Dissemination leader, RINA-C is responsible for hosting the website, for the website design and its correct functioning, while all partners will be asked to contribute to increase the content.

[1] Coalo, J.J (September 5, 2012). "With 60 Million Websites, WordPress Rules The Web. So Where's The Money?". Forbes. Archived from the original on January 29, 2016. Retrieved February 3, 2016

[2] "Usage Statistics and Market Share of Content Management Systems for Websites". W3Techs. April 23, 2018. Archived from the original on April 23, 2018. Retrieved April 23, 2019.

4.3 Website features

During the design of frESCO's website, particular emphasis was put on the following features:

- **Responsivity**: frESCO's website is responsive in order to make sure results can be easily accessed through different devices (laptops, tablets and smartphones). In fact, responsive web design makes web pages look good on all devices and offers the best experience for all users.
- **SEO optimisation**: frESCO's website is designed under the principles of SEO (Search Engine Optimisation), in order to gain a good positioning in the Google SERPs and raise awareness about the project. This is done by including keywords related to the project topic carefully selected and with a high potential to be googled by the users. In addition, non-technical SEO techniques will be used to engage potential stakeholders, such as social media marketing to drive traffic to our website.
- **Integration with social media**: social media have been integrated into frESCO's website to encourage website visitors to follow the project.
- **GDPR compliance**: frESCO's website is compliant with the new GDPR - (UE) 2016/679. A cookie and privacy policy has been developed and the data about visitors retrieved by the web analytics tool (https://statcounter.com/) are **anonymised**. The cookies policy message appears when the user accesses the website for the first time, while a dedicated section for the cookie policy and the privacy policy have been created and can be reached directly from the cookie policy bar or through the footer as mentioned afterwards.

4.3.1 Cookie Policy

The Cookies set by the website owner (in this case, frESCO Project) are called "first party cookies". Cookies set by parties other than the website owner are called "third party cookies". Third party cookies enable third party features or functionality to be provided on or through the website (e.g. like advertising, interactive content and analytics).

Some cookies are required for technical reasons in order to operate, and we refer to these as "essential" or "strictly necessary" cookies. Other cookies also enable to track and target the interests of our users to enhance the experience on our online properties. Third parties serve cookies through our websites for advertising, analytics and other purposes.

The visitors have the right to decide whether to accept or reject the cookies. Essential cookies cannot be rejected as they are strictly necessary to provide the users with dedicated services.

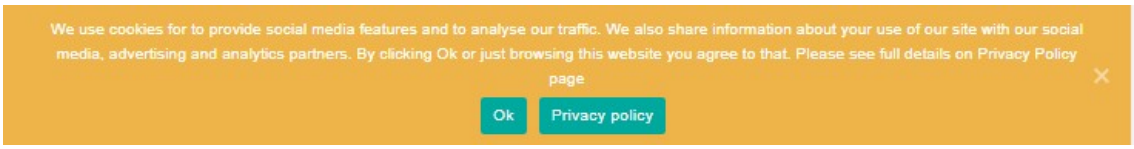


Figure 3. Cookie policy

4.3.2 Privacy Policy

This privacy policy explains how RINA-C handles the users personal data collected through the website. Personal data is any information relating to an identified or identifiable person (e.g. e-mail address, name or phone number). The visitors are very welcome to visit frESCO's website while remaining **anonymous** and not revealing any personal data. Sharing is done on a voluntary basis. Also the tool used for website analytics tracks only **anonymized data**.

RINA-C collects the personal data the users enter into a form (newsletter) on the website. This data will be used to serve their request, to enhance the service of our website and to personalise information provided. In addition to personal data, certain information on an anonymous basis are collected and cannot be associated personally (i.e. number of visitors to our website, browsing areas of interest, etc). This data will be analysed to assess trends, statistics and our clients' needs, to help us improve frESCO's website and better serve our clients.

4.3.2.1 Disclosure to other companies

RINA-C will not provide any personal data to any third party without a prior consent.

In addition, the visitor has:

- The right to opt out at any time from the newsletter
- The right to access, correct and delete of personal data
- The right to ask which personal data are held

E-mail messages sent to the visitors during newsletter registration will contain instructions on how to unsubscribe.

4.4 Website architecture

frESCO's website is composed by the following main sections:

- Homepage
- About
- Results & Public Reports
- News & Events
- Contacts

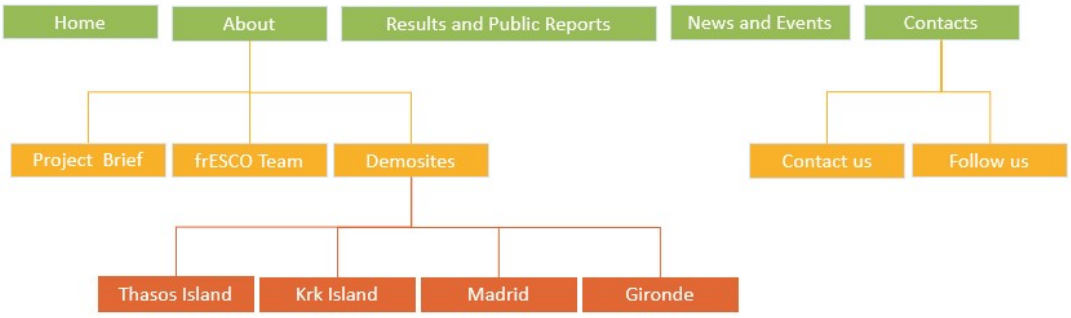


Figure 4. frESCO Website architecture

The overall architecture is composed by:

- the "Header": an upper bar in which the project's logo appears on the top left, the links to the different sections of the website, the links to the social pages on the top right and a search icon on the right.

Figure 5. White Header

The upper bar becomes black when scrolling the webpage.

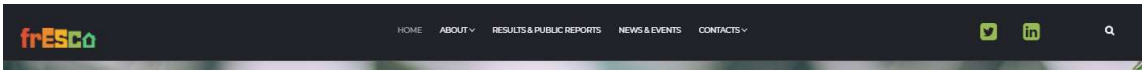


Figure 6. Black Header

- the "Footer": a bottom bar which has on the left the EU flag logo and the acknowledgement to guarantee that frESCO's website is compliant with Article 29 (DISSEMINATION OF

RESULTS — OPEN ACCESS — VISIBILITY OF EU FUNDING[3]), links to the Privacy Policy, the Cookie Policy, Terms of use, Contacts and the social media icons.

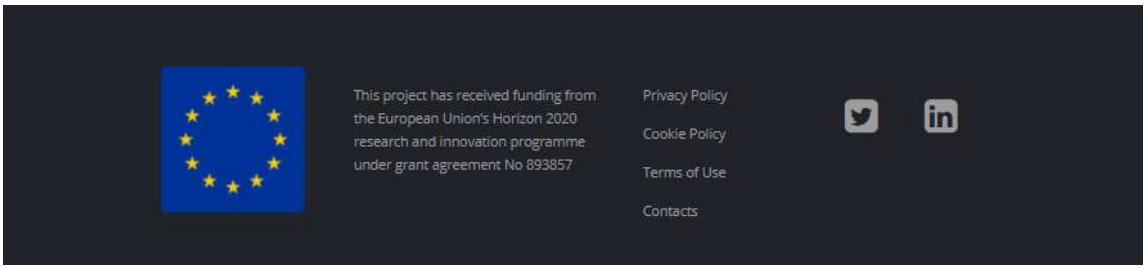


Figure 7. Footer

4.4.1 Homepage

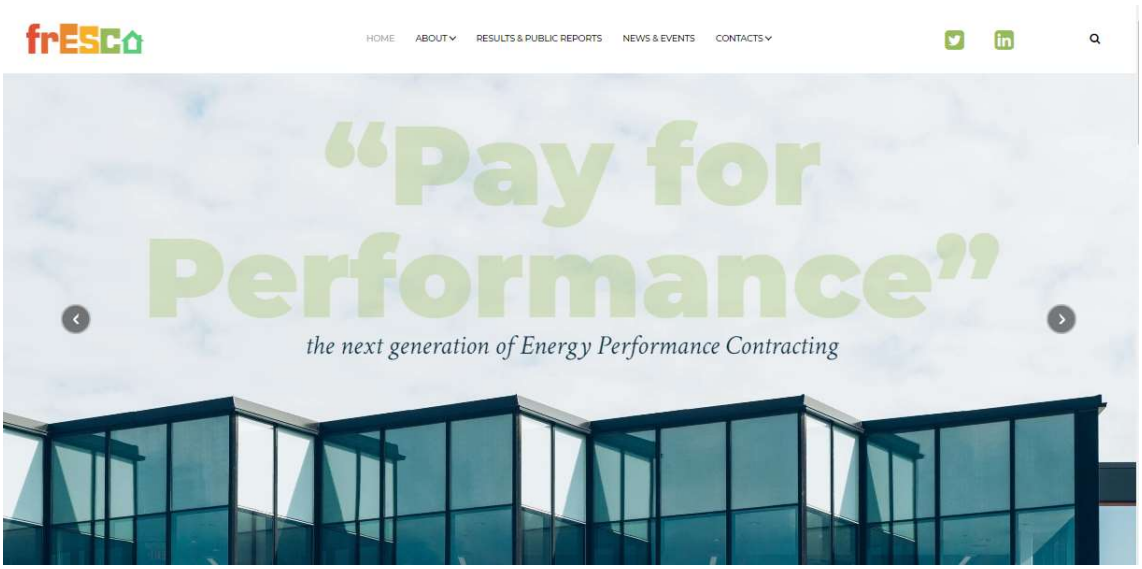
The homepage is structured in such a way that the fundamental messages of the project are immediately highlighted and have a visual impact on the visitor. These messages are:

- "Pay for Performance": the next generation of Energy Performance Contracting
- Innovative business models for novel energy service bundles for residential consumers
- Empower consumers and prosumers to participate in energy transactions and become active players in the energy market
- A demonstration campaign in real environment in four representative pilot sites

All of them are presented using appealing images to attract immediately the visitors and keep them engaged with our website.

The homepage will soon be enriched through a **promotion video**, such as one-minute long animations, showing the frESCO main concept.

[3] https://webgate.ec.europa.eu/funding-tenders/opportunities/content/article-29-%E2%80%94-dissemination-results-%E2%80%94-open-access-%E2%80%94-visibility-eu-funding_en


HOME
ABOUT
RESULTS & PUBLIC REPORTS
NEWS & EVENTS
CONTACTS
"Pay for Performance"
the next generation of Energy Performance Contracting

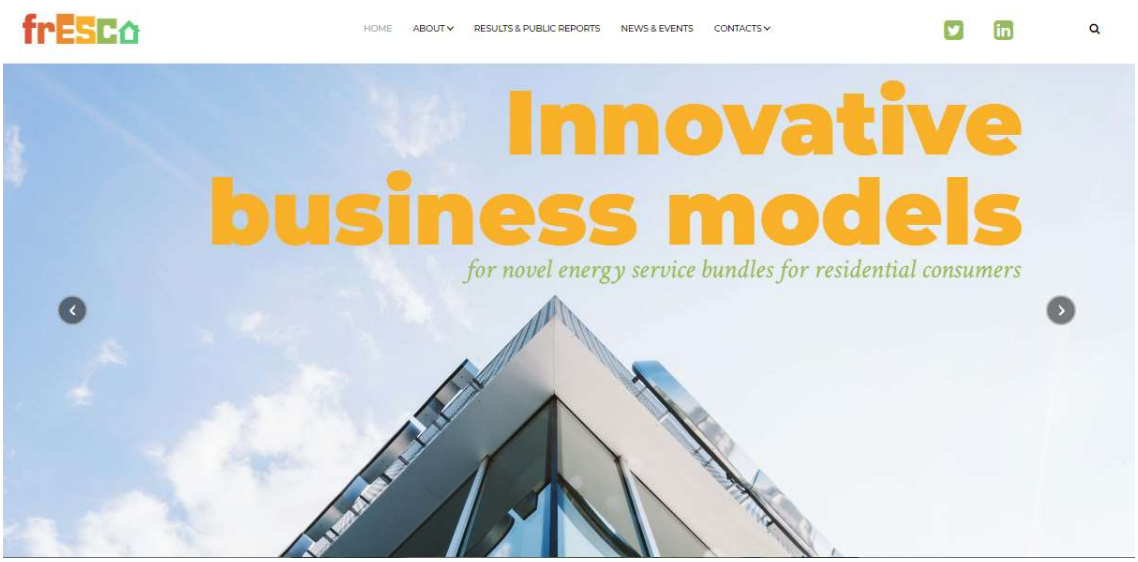

HOME
ABOUT
RESULTS & PUBLIC REPORTS
NEWS & EVENTS
CONTACTS
Innovative business models
for novel energy service bundles for residential consumers

Figure 8. Homepage Slider

The navigation through the homepage sections can be performed through a bar menu or through a lateral dot navigation bar according to the device.

Moving downwards, three windows that lead to three key-pages of the website are inserted:

- Concept & Objectives that lead to the Project Brief webpage
- Demosites
- Results and Public Reports

In this way the website homepage represents an attractive showcase for the project and a tool for the effective dissemination of the project objectives, pilots and latest results.

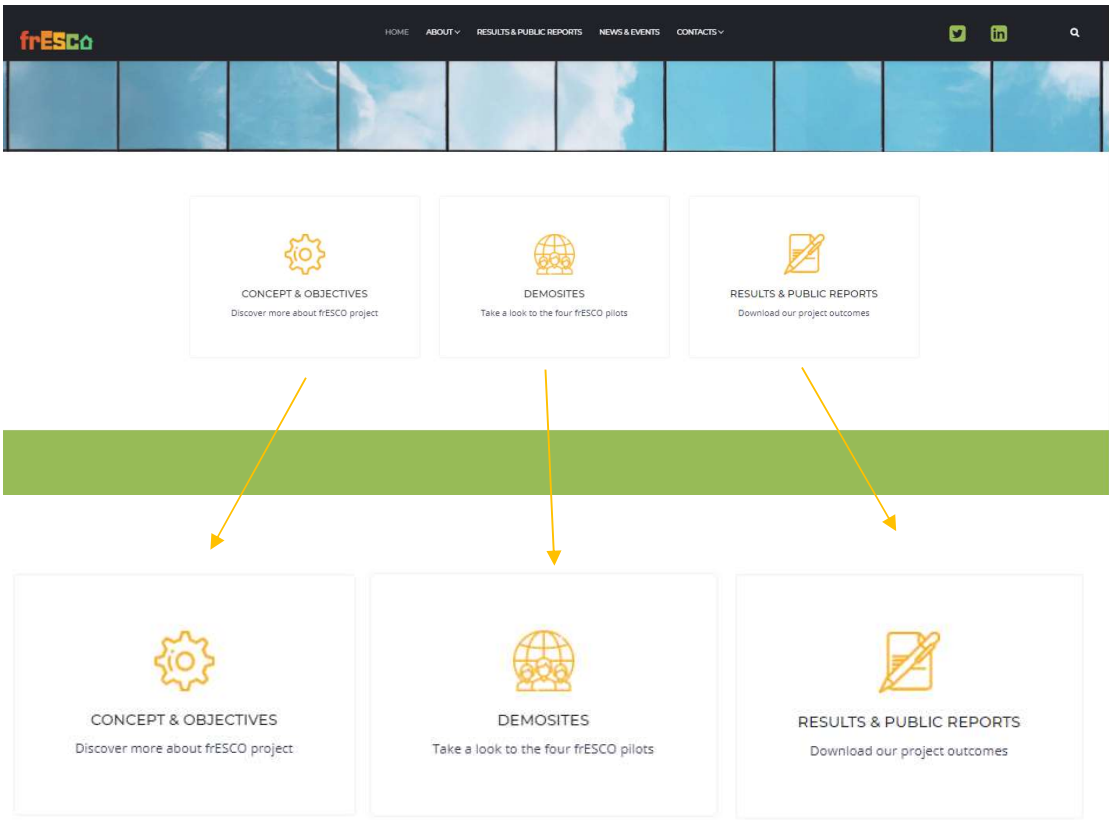


Figure 9. Homepage details

The fundamental numbers of the project (partners, countries involved, months and funding) are presented through a dynamic counter that immediately attracts the users' attention.

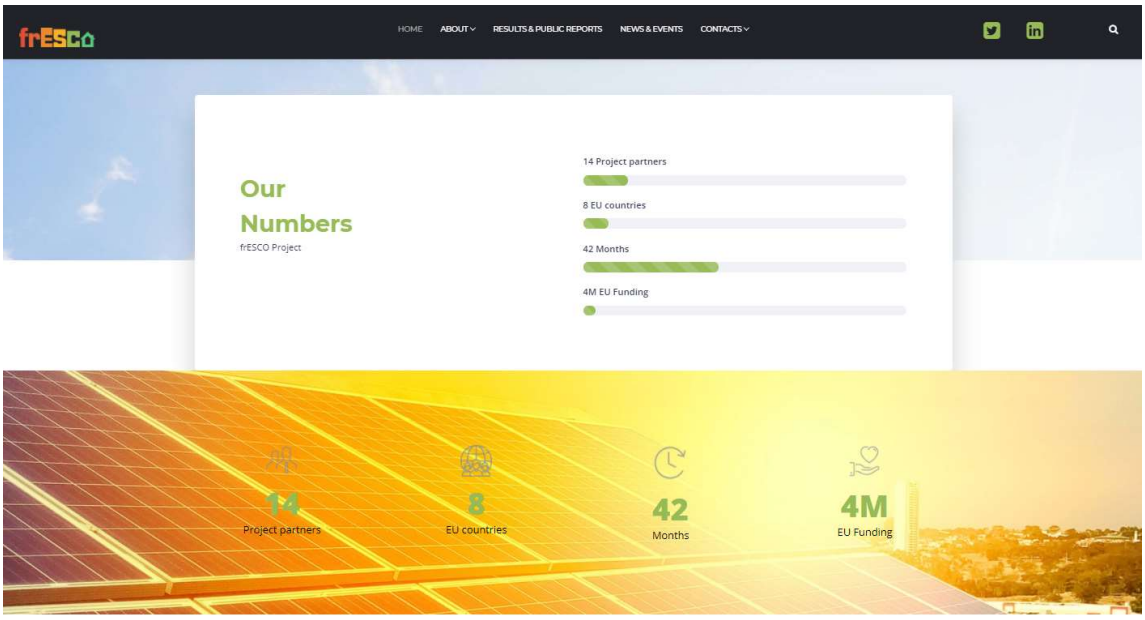


Figure 10.frESCO Counter

Moreover, the homepage includes the web form to subscribe to the project newsletter, carefully highlighted thanks to the colours in order to make it more attractive for the website visitors.

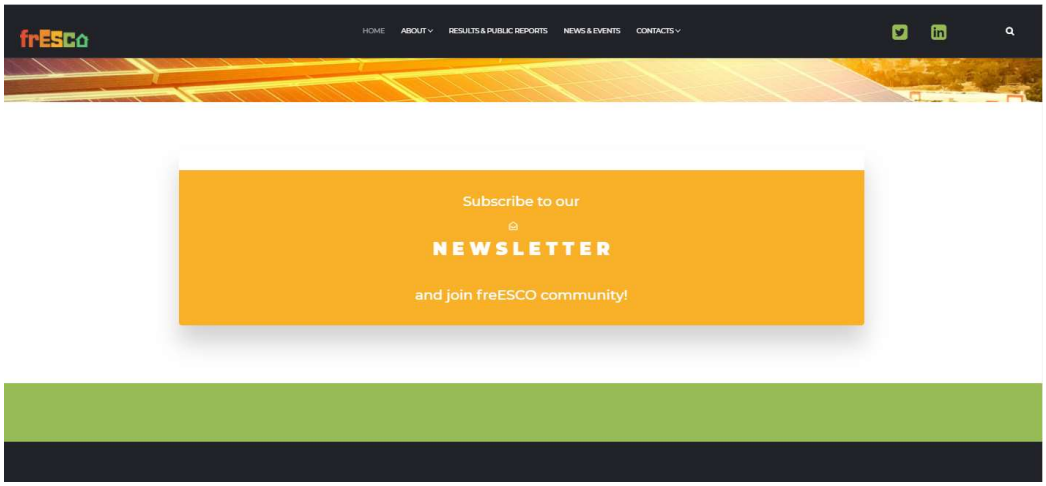


Figure 11. frESCO Newsletter Link

4.4.2 Project Brief

"Project Brief" is a sub-section of the webpage "About".

This sub-section has the main purpose of giving information regarding the timeline, the concept and the objectives of the project. For this reason, it is the most representative link for any contact interested in discovering the project for the first time.

The timeline shows the most important milestones and objectives of the project.

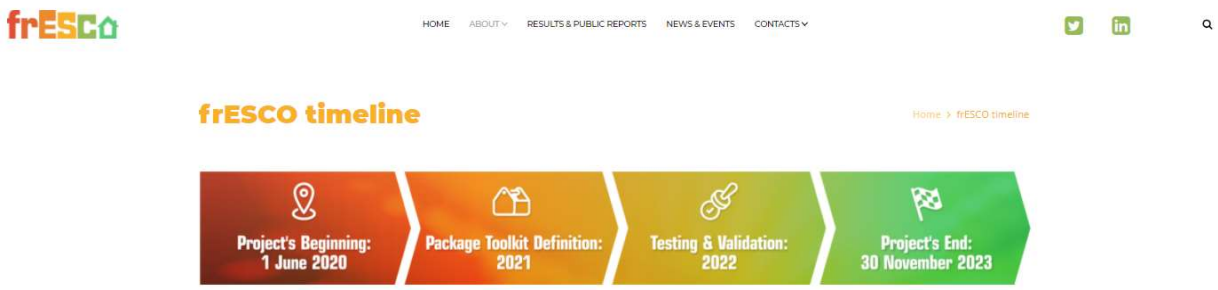


Figure 12. frESCO Timeline

The concept of the project is described just below the timeline also thanks to a colourful graphic scheme in order to make the purpose of the project clearer also in a visible way.

Project Brief

Energy Performance Contracting (EPC) is a form of 'creative financing' for capital improvement which allows funding energy upgrades from cost reductions. Under an EPC arrangement an external organization (ESCO) implements a project to improve the energy efficiency or renewable energy production and uses the stream of incomes from the cost savings to repay the overall costs of the project, including the initial investment. Essentially, in EPC, ESCO's remuneration is based on the demonstrated performance.

Despite the large economic energy saving potential in the EU, nowadays very few ESCOs apply Energy Performance Contracting to the residential market due to high transaction costs, high fragmentation of market, variation of individual needs and behaviours that require customized and personalized treatment and lack of information and expertise on the residential consumer.

Therefore, new EPCs need to disengage from current old-fashioned savings-based performance contracts and allow **to evolve energy market trends with the introduction of novel hybrid schemes that do not only reduce costs, but also create new revenue streams for the end-consumers/ prosumers, by empowering them to participate in energy transactions and become active players to the overlay energy market actors.**

In this context, **frESCO project** will deliver the **next generation of EPC** under the principle of **Pay for Performance**.

These packages will combine:

- **Building retrofitting and investments for the installation of smart equipment** (metering, sensing, actuating), together with extended offerings for the installation of distributed generation (PV) and storage (batteries) units;
- **Energy efficiency measures**, spanning behavioural transformation, targeted guidance towards energy savings, along with more advanced concepts for net metering/ self-consumption maximization through smart automation at both building and local energy community level;
- **Flexibility services** (with the introduction of storage and, if available, electric vehicles as means for enhancing flexibility);
- **Non-energy services** (Comfort preservation, Indoor Air-quality, Security, Well-being, Emergency notification services, etc.).

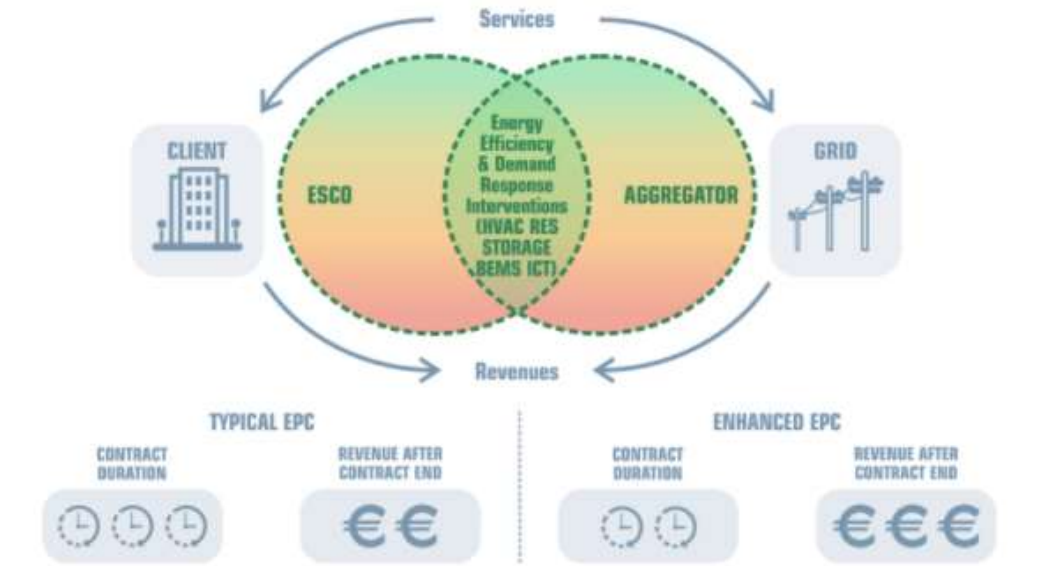


Figure 13. Project Brief and Graphic Scheme

To complete the project presentation, its main objectives are reported just below the project brief.

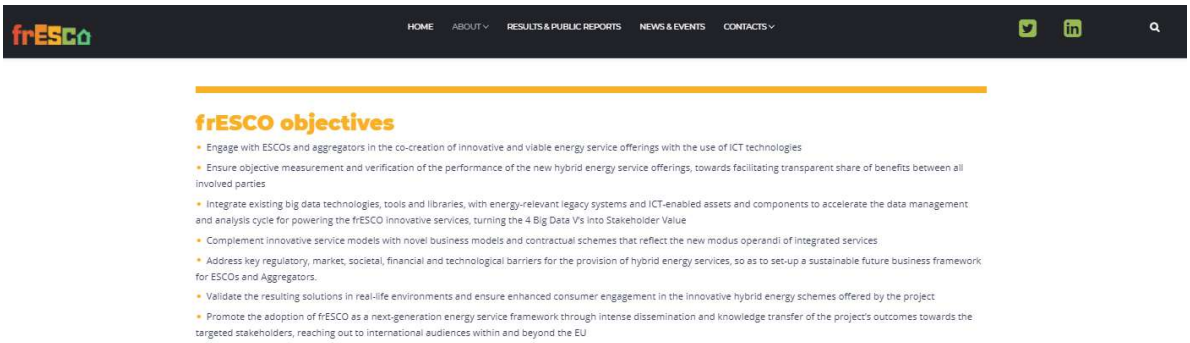


Figure 14. frESCO Objectives

4.4.3 frESCO Team

"frESCO Team" is a sub-section of the webpage "About" and aims at introducing the project consortium.

First, a map that visually shows the geographic position of the partners is inserted.

Figure 15. Partners Map

The map is then followed by the list of the frESCO partners, highlighting their role in the project. Each partner' logo is a link to the respective organization website.

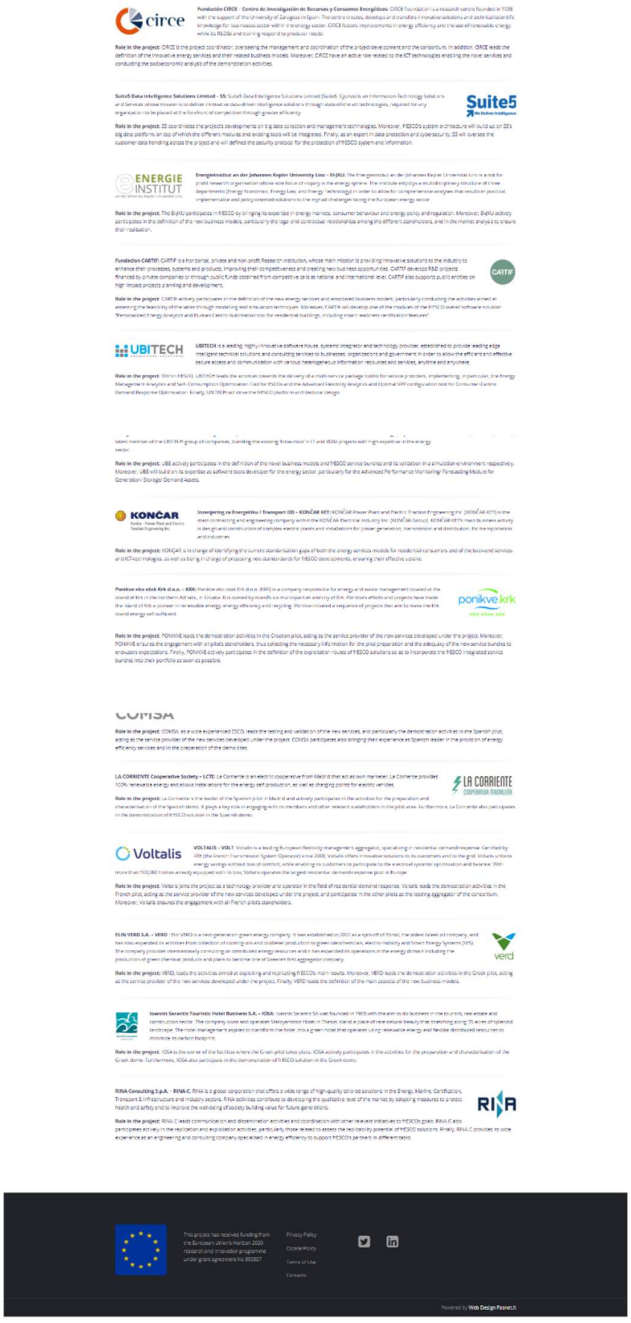


Figure 16. Partners Description

4.4.4 Demosites

"Demosites" is a sub-section of the webpage "About". It represents the main webpage through which it is possible to access the four different pilots' descriptions. A map that shows the geographic position of the demosites is the main element of this section. The four boxes that mention the pilots' names represent links through which it is possible to access the respective pages.

Figure 17. Demosites Map

All pilots' webpages described below are intended to highlight the main characteristics of the demosites and to communicate the objectives that led them to participate in the project.

Through the webpage it is possible to recreate the pilot's path, starting from its initial status, highlighting the changes that will be implemented through frESCO and showing the final picture once the project is finished. The aim is to show the visitors the story of the pilots as the project progresses.

At this moment, since the project is at the beginning, the current status of the pilots, the equipment that will be installed and the plans foreseen within the project are shown. These pages will be gradually updated by RINA-C.

4.4.4.1 Thasos Island

This section is dedicated to the Thasos Island demosite. Its main features and targets are described here, as well as its initial status (building involved, equipment already installed, energy profile…). The progress of the pilot will then be updated during the project development.

Location

CONSUMER INVOLVED	BUILDINGS INVOLVED	BUILDING TYPOLOGY
Up to 400	30	Rental Bungalows

Three of the bungalows have been recently equipped with photovoltaic plants.
The hotel is in a transformation process in becoming a "green hotel" and will offer its facilities for the Greek pilot and local expertise in the management of its energy infrastructure.

Energy Profile

CONSUMPTION	PRODUCTION
450kW maximum demand 85,000 kWh/yr (electricity)	3 PV units totalling circa 50kW 85,000 kWh (electricity)

Installed Equipment

BUNGALOW 1	BUNGALOW 2	BUNGALOW 3
56 SunPower photovoltaic modules 350Wp each	54 SunPower photovoltaic modules 350Wp each	56 SunPower photovoltaic modules 350Wp each
One Fronius Symo 10kW on grid inverter	One Fronius Symo 10kW on grid inverter	One Fronius Symo 10kW on grid inverter
One Fronius Symoh 5kw hybrid inverter	One Fronius Symoh 5kw hybrid inverter	One Fronius Symoh 5kw hybrid inverter
One BYD HVM 8.3 lithium ion battery.	One BYD HVM 8.3 lithium ion battery.	One BYD HVM 8.3 lithium ion battery.

Activities conducted in the pilot

Enhanced EPC services proposed by frESCO will look into maximising the energy savings at the Greek pilot by sharing consumption in different loads and potentially aggregating flexibility for providing further services and maximising the benefits of the infrastructure. In particular, frESCO will explore the business case behind integrated energy services bundles including, at least, optimal self-consumption (PV + batteries), automation and flexibility services - since the Greek market has started its first steps to open residential demand-response, placing comfort at the centre of the offer.

Figure 18. Thasos Island Webpage

4.4.4.2 Krk Island

This section is dedicated to Krk Island demosite. Its main features and targets are described here, as well as its initial status (building involved, equipment already installed, energy profile…). The progress of the pilot will then be updated during the project development.

Location

CONSUMER INVOLVED	BUILDINGS INVOLVED	BUILDING TYPOLOGY
60	15-20	Single family/bi-family buildings

Energy Profile

Installed Equipment

Traditionally, biomass or fossil-based fuels have been used as main heating sources, but these systems have been increasingly replaced by heat pumps.
PV panels of 3 kWp are installed in the rooftop.
Currently, a partial home control system is already installed for the control of lighting, temperature and window blinds.
During the project activity this system will be extend to the control of water, safety (CO and smoke sensors) and energy consumption/production through an energy management rule that allow to transfer the energy flow to the dwelling, to the batteries or the EV charging points depending on the needs of the customer.

Activities conducted in the pilot

The activities to be developed in Krk will be conducted in the framework of strategy for zero greenhouse gas emissions and integrated sustainable development of the island defined by KRK.
frESCO will explore the business case of integrated energy services including distributed generation, consumption automation and building retrofitting, exploiting the synergies with existing renovation programmes and comparing the impact with old and inefficient buildings in the same locations.

Figure 19. Krk Island Webpage

4.4.4.3 Madrid

This section is dedicated to Madrid demosite. Its main features and targets are described here, as well as its initial status (building involved, equipment already installed, energy profile…). The progress of the pilot will then be updated during the project development.

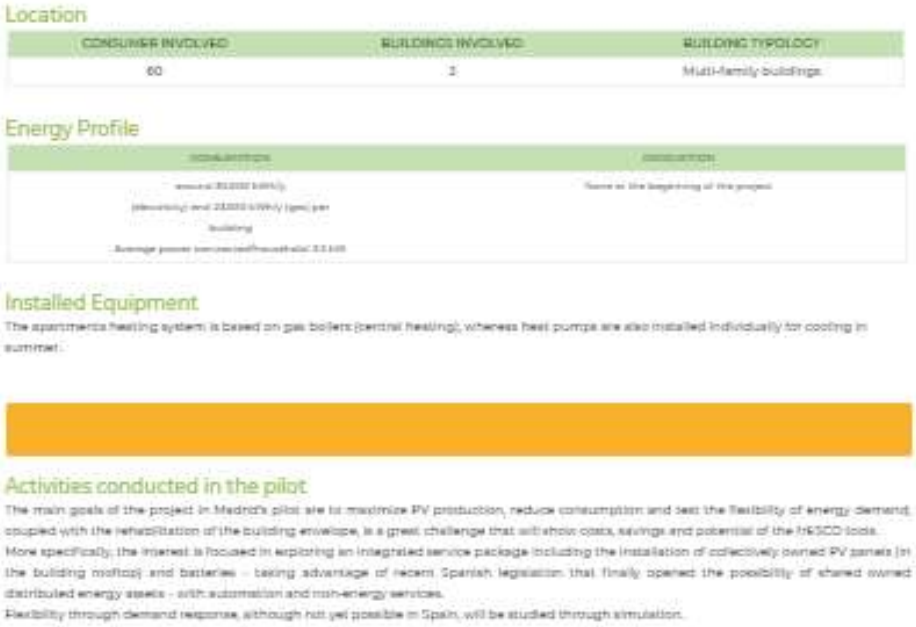


Figure 20. Madrid Webpage

4.4.4.4 Gironde

This section is dedicated to the Gironde demosite. Its main features and targets are described here, as well as its initial status (building involved, equipment already installed, energy profile…). The progress of the pilot will then be updated during the project development.

Gironde

frESCO aims at testing and demonstrating the performance of the innovative energy services packages and business models and the overall ICT solution through a demonstration campaign in real environment in four representative pilot sites.

Gironde – France

The French pilot takes place in suburban areas of the Gironde Department, at the South West cost of France in the region of Nouvelle Aquitaine. Gironde is the largest department in metropolitan France, with an area of 10,000 km2 and a population over 1.5 million people.
The region has oceanic climate, with an average temperature of 5 degrees in winter and 20 degrees in summer.

Pilot targets

- Demonstration of the approaches from the novel energy services
- Minimise the energy consumption from consumers while maintaining comfort conditions

Location

CONSUMER INVOLVED	BUILDINGS INVOLVED	BUILDING TYPOLOGY
60	30	Single-family buildings

Energy Profile

Installed Equipment

The buildings are a mixed of older and newer single-family houses, with medium to good isolation and electric heating.

Activities conducted in the pilot

frESCO's integrated service bundles in the French pilot will mainly focus on the combination of flexibility services (being France the most advanced market in this field) with automation, behavioural shifts in the consumer and non-energy services.
Finding the right compromise and balance in the value stream will be the main challenge in this pilot phase. frESCO will have to determinate what is the appropriate value repartition that has to be distributed between the end-user (energy savings, self-consumption optimization, cash retribution) and the operator (profitability of the offer) for a large-scale dissemination of the solution.
Other challenges include:

- The changes required in the current regulatory framework to unlock the design of such solutions
- The possible need to "stack" revenues
- The appetite of end users for innovative and engaging offers

Figure 21. Gironde Webpage

4.4.5 Results & Public Reports

This section will include all the public deliverables produced within the project. In particular, frESCO will produce 22 public reports that will be uploaded in this section.

This section is particularly important to guarantee the dissemination and exploitation of frESCO results and it will regularly be updated, in order to make all the public reports approved by the European Commission, accessible to potential stakeholders and the general public.

Figure 22. Result & Public Reports Webpage

4.4.6 News & Events

This section will include articles about all the dissemination activities performed by the project consortium.

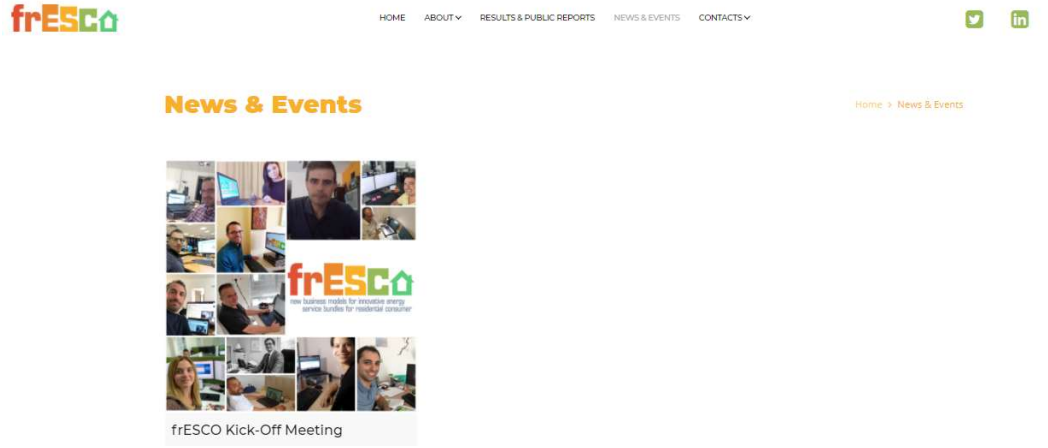


Figure 23. frESCO News & Events Webpage

4.4.7 Contacts

The “Contacts” section is composed of two sub-sections: “Contact us” and “Follow us”, as reported below.

4.4.7.1 Contact us

This section has been implemented with the aim to provide to the public audience the contact points where asking for more information about the project. Four reference persons are identified with this aim: the project coordinator and the project manager from CIRCE and the communication & dissemination leader from RINA-C.

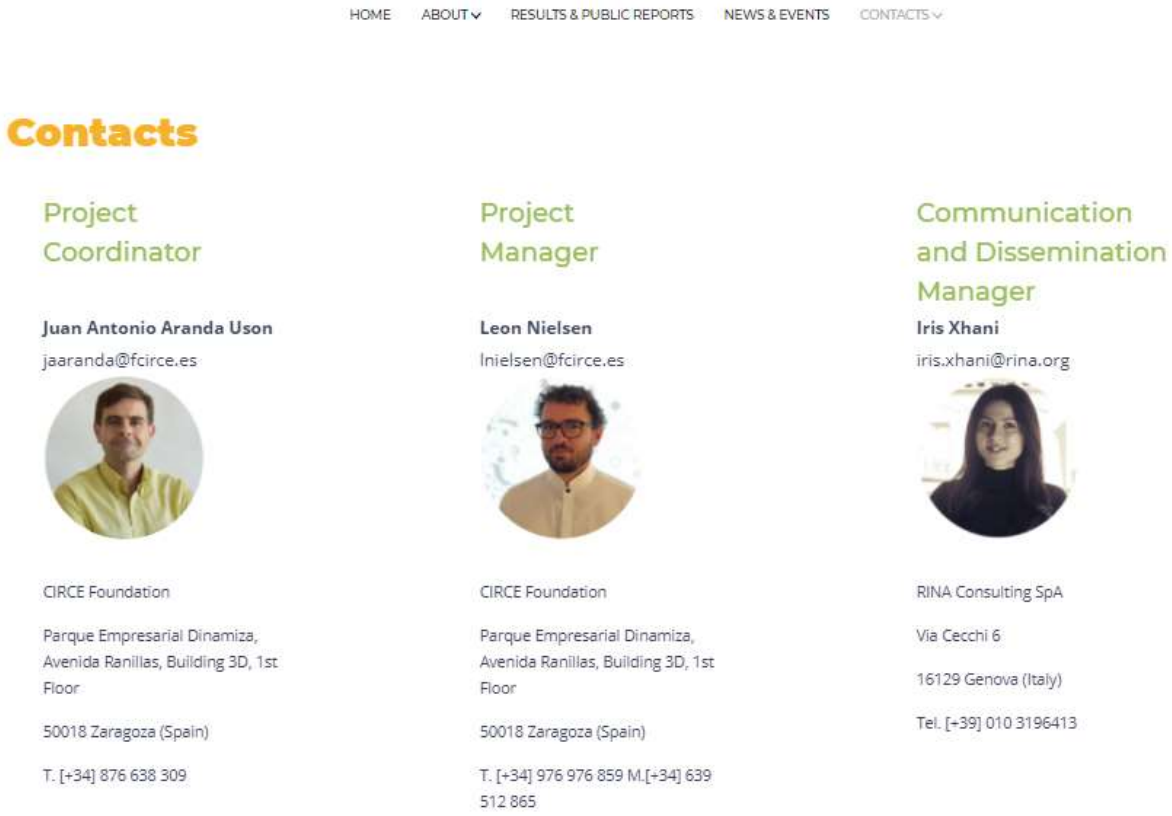


Figure 24. frESCO Project Contacts

A map also shows the geographical position of CIRCE being the project coordinator and therefore representing the reference location for frESCO.

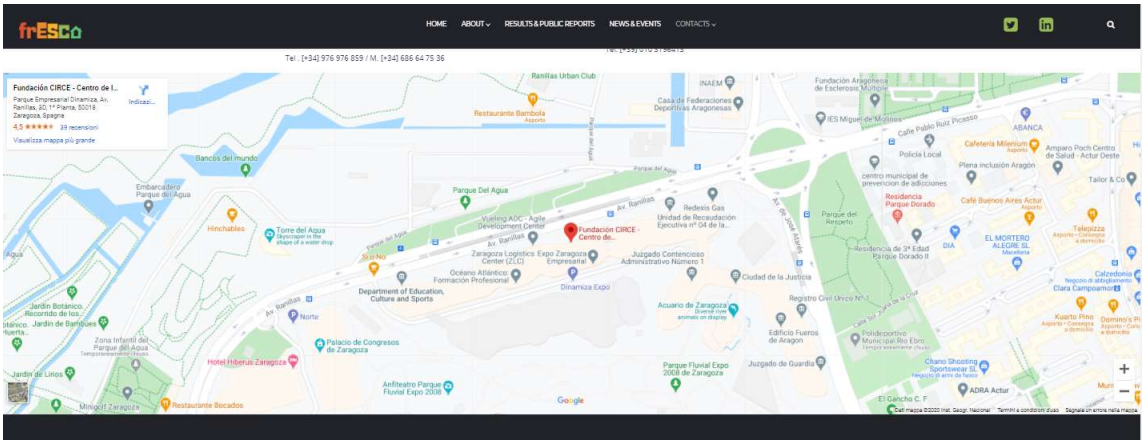


Figure 25. CIRCE Location Map

4.4.7.2 Follow us

This is the section, in which the potential stakeholders identified by the frESCO consortium will have the possibility to subscribe to the newsletter, by providing their name/surname, institution, country, type of institution and email. A periodic project newsletter will be delivered every 6 months, with the purpose of keeping the stakeholders updated about project developments and create a frESCO community.

The privacy policy is outlined within the website and in this section a link that refers to the dedicated webpage is added. This aims at defining mainly the collection of data policy and its use, guaranteeing data security.

The page to subscribe has been carefully highlighted also in the homepage, as seen before.

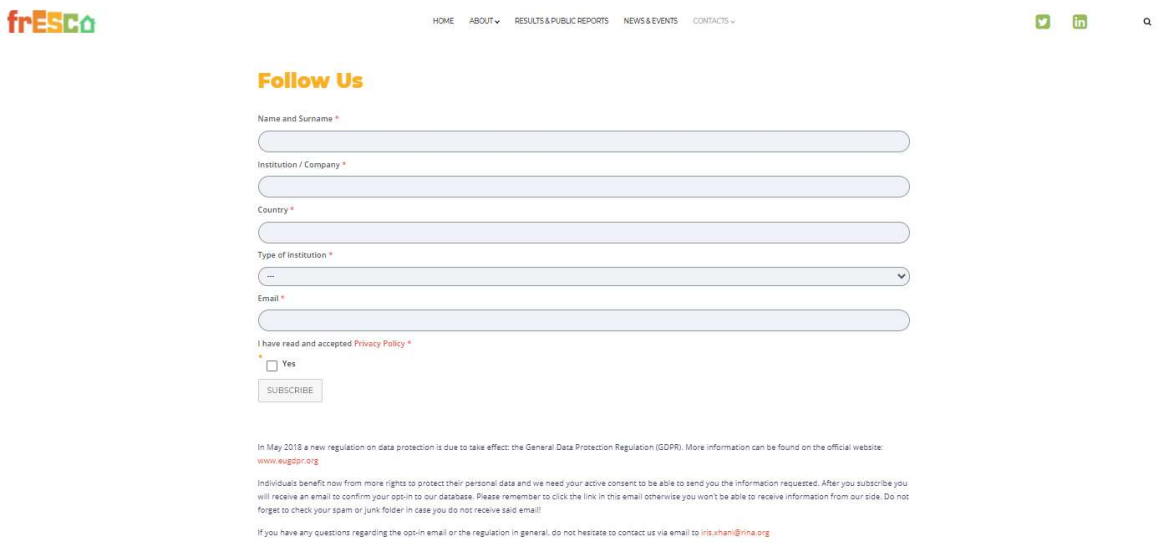


Figure 26. Newsletter Registration Form

5 SOCIAL MEDIA

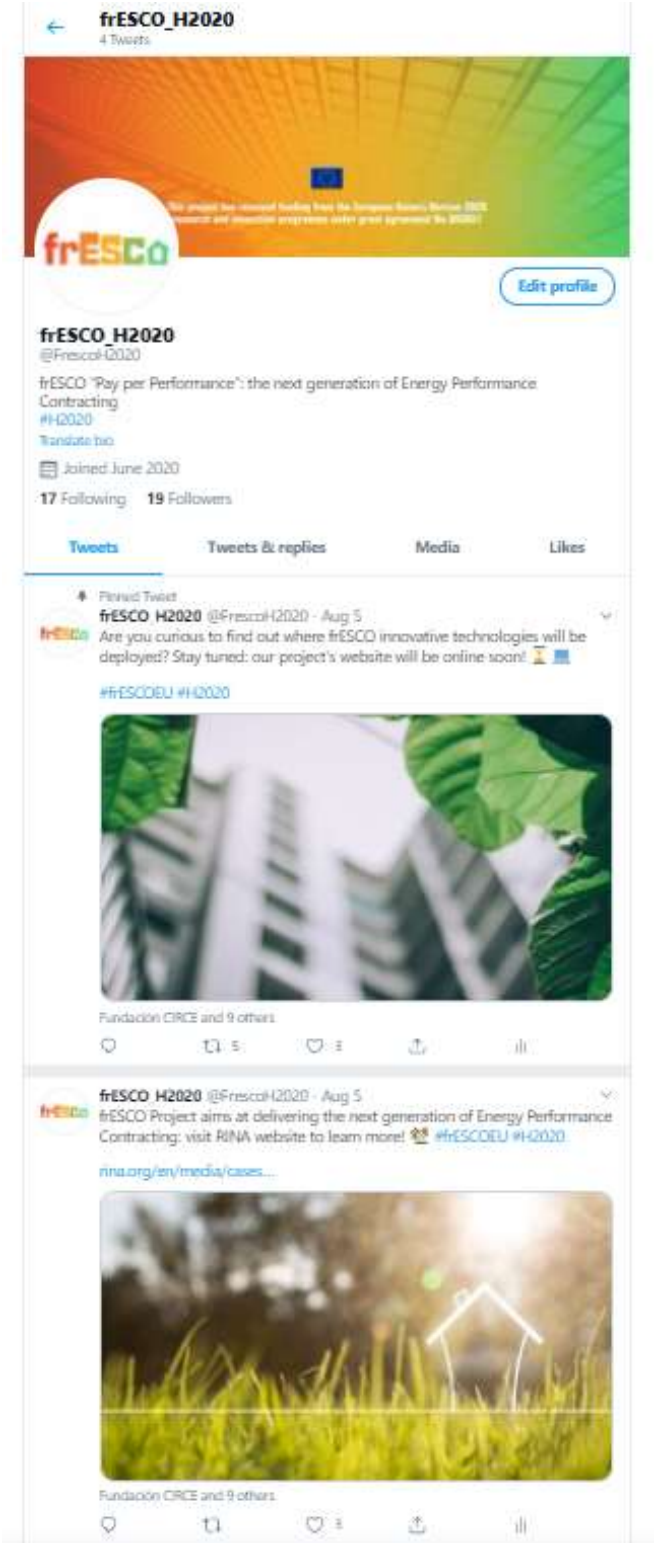
In 2019, the average daily social media usage of internet users worldwide amounted to 144 minutes per day, up from 142 minutes in the previous year[4]. Therefore, social media has become the largest and most effective communication channel for sharing any kind of information or news. For this reason, the use of social media in European projects has become one of the priorities to raise awareness about the projects' existence and results.

Two social media pages have been created in June 2020 (M1) with this purpose for the frESCO project: Twitter and Linkedin.

5.1 Twitter

In 2019, Twitter had about 330 million active users worldwide[5]. This is the main reason why frESCO Twitter account (**https://twitter.com/FrescoH2020**) has been created to promote online conversation and debates around the project.

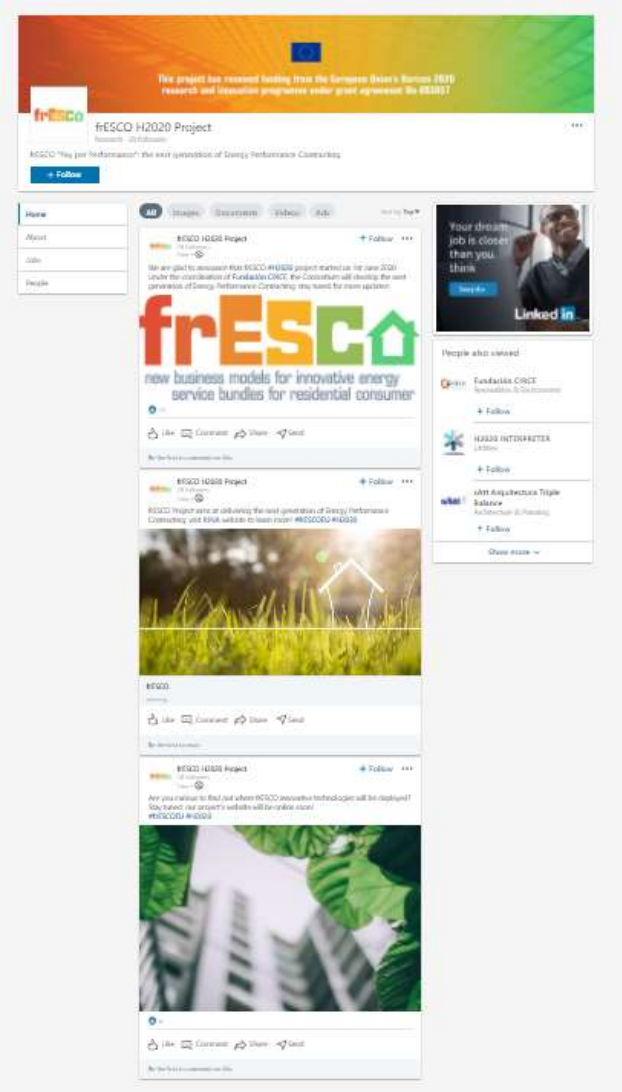
[4] https://www.statista.com/statistics/433871/daily-social-media-usage-worldwide/
[5] https://sproutsocial.com/insights/social-media-statistics/


frESCO_H2020
4 Tweets
Edit profile
frESCO_H2020
@FrescoH2020
frESCO "Pay per Performance": the next generation of Energy Performance Contracting
#H2020
Translate bio
Joined June 2020
17 Following 19 Followers
Tweets
Tweets & replies
Media
Likes
Pinned Tweet
frESCO_H2020 @FrescoH2020 · Aug 5
Are you curious to find out where frESCO innovative technologies will be deployed? Stay tuned: our project's website will be online soon!
#frESCOEU #H2020
Fundación CIRCE and 9 others
frESCO_H2020 @FrescoH2020 · Aug 5
frESCO Project aims at delivering the next generation of Energy Performance Contracting: visit RINA website to learn more! #frESCOEU #H2020
rina.org/en/media/cases...
Fundación CIRCE and 9 others

5.2 Linkedin

LinkedIn has a completely different audience type compared to other social media platforms and it is the largest professional network. This makes it the ideal platform for B2B marketers. The platform currently has over 660 million registered users, with 303 million of them being active on a monthly basis[6].

frESCO Linkedin page (**https://www.linkedin.com/company/fresco-h2020-project**) has been created and will be used to inform and engage the (business) stakeholders such as ESCOs, aggregators, DSOs, regulatory bodies and authoritie.



[6] https://sproutsocial.com/insights/social-media-statistics/

6 CONCLUSIONS

In conclusion, frESCO website is responsive, SEO optimised and GDPR compliant in order to offer the best navigation experience to its visitors, disseminate the project's results in the most efficient way and guarantee the proper exploitation of the project innovations.

All the contents can also be easily accessed and understood by a non-specialised audience in order to raise awareness about the project.

The sections of the website are:

- Homepage
- About
- Results & Public Reports
- News & Events
- Contacts

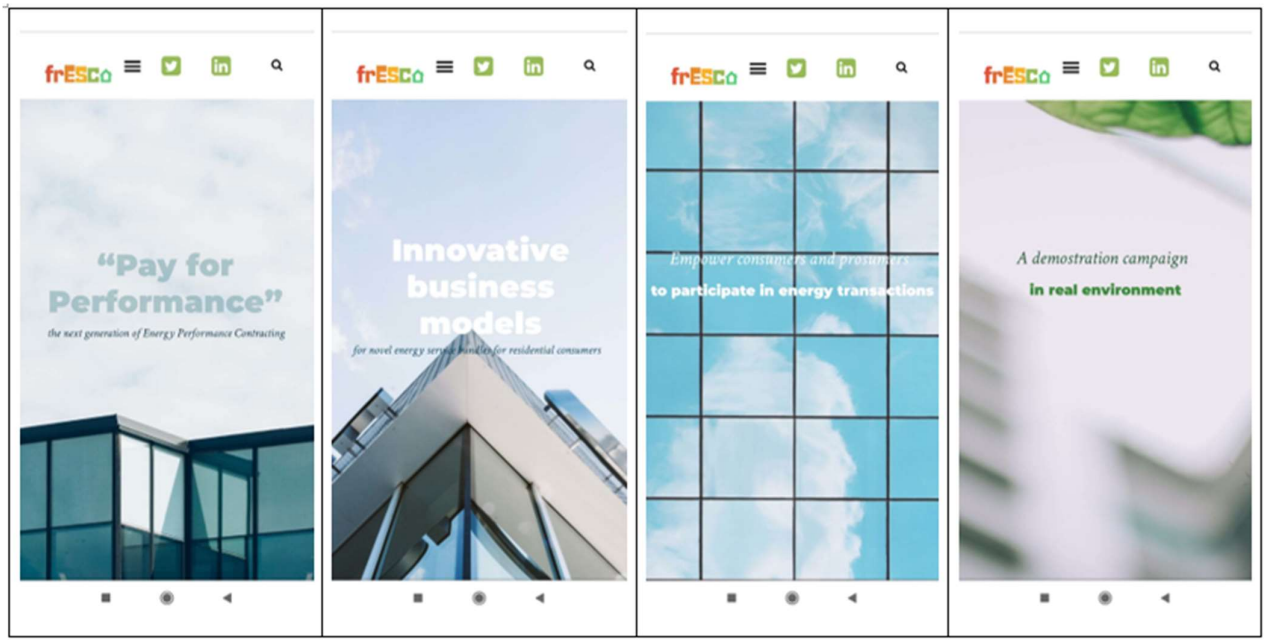
Social media pages (Linkedin and Twitter) have also been created in order to drive traffic to the website.

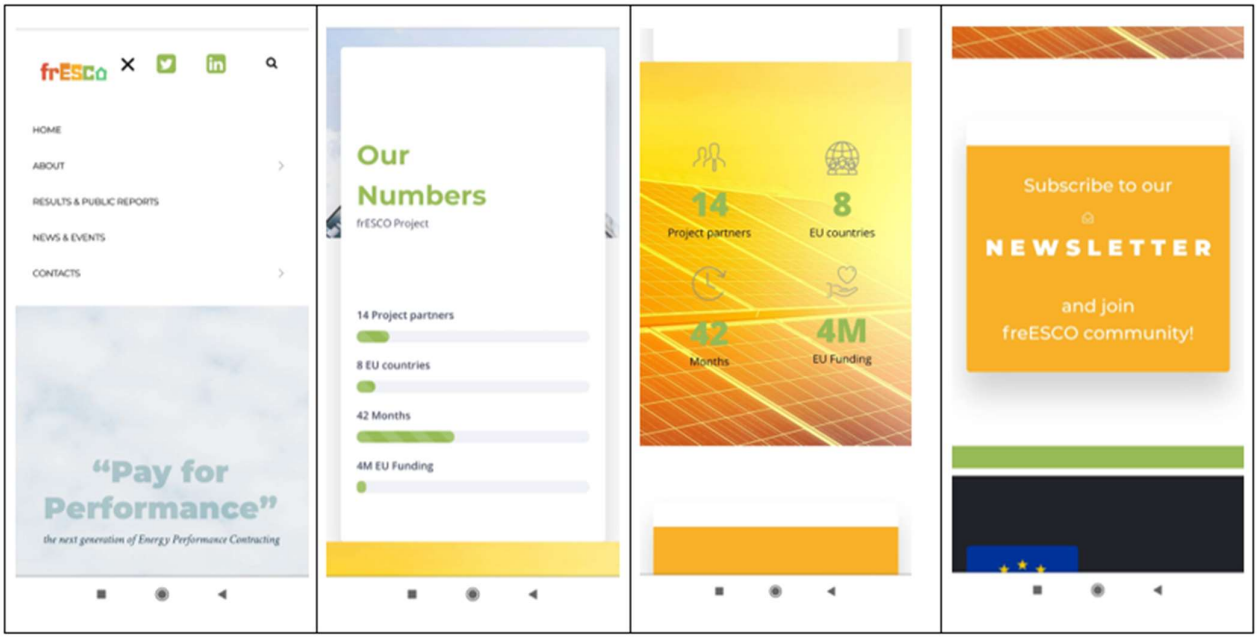
The website will be regularly updated throughout the project.

7 ANNEXES

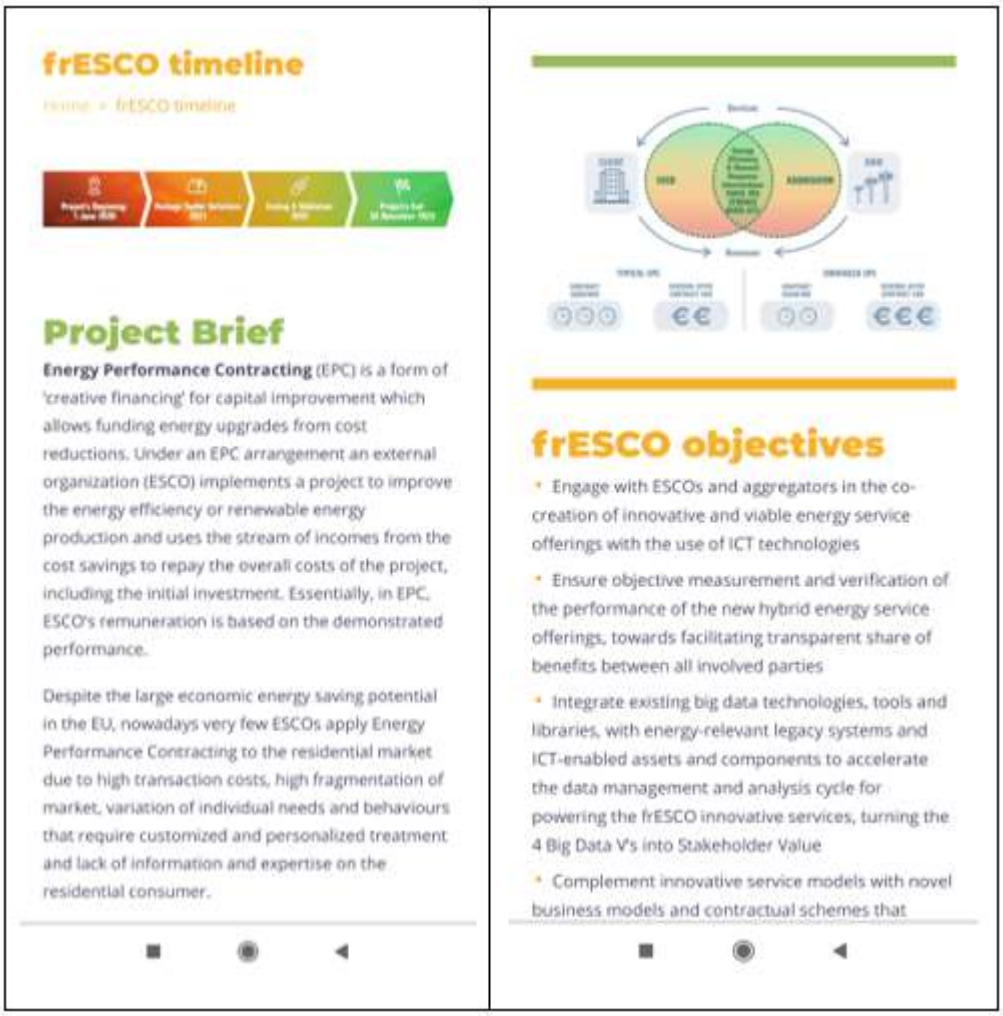
7.1 Annex 1 Mobile Screenshots

7.1.1 Home page





7.1.2 Project Brief



frESCO timeline

Home > frESCO timeline

Project Brief

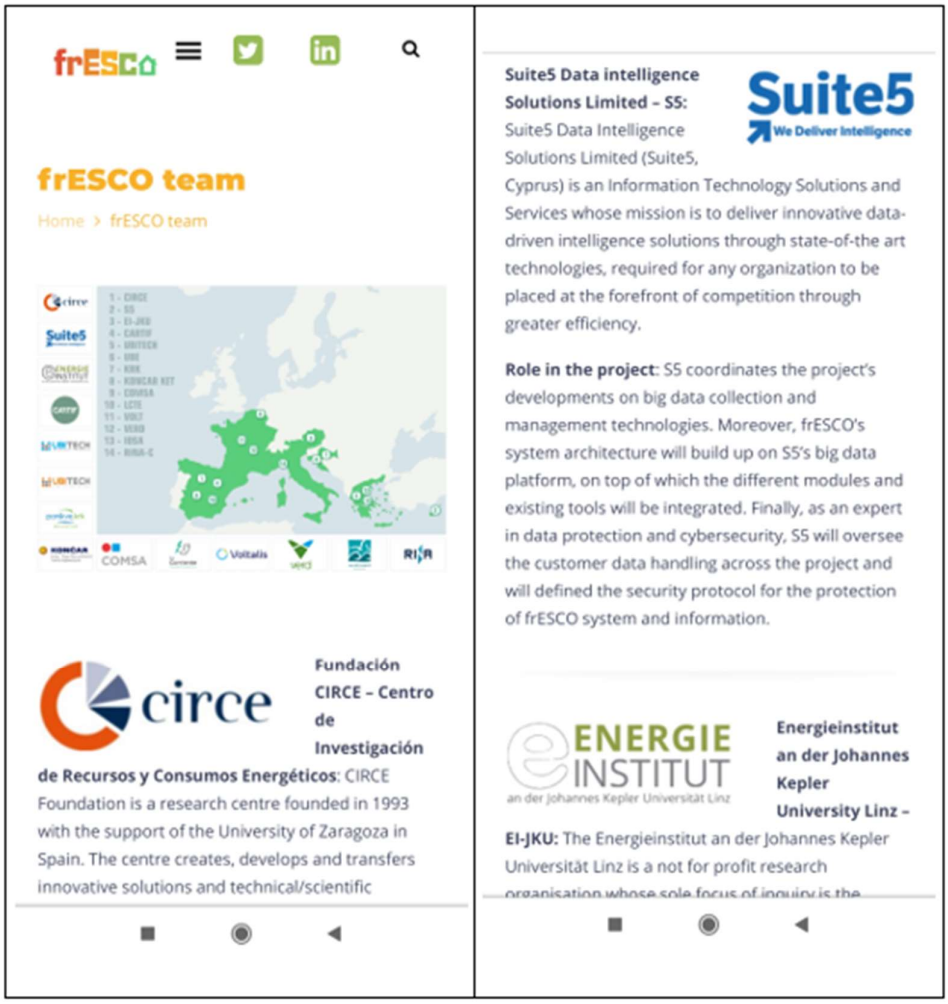
Energy Performance Contracting (EPC) is a form of 'creative financing' for capital improvement which allows funding energy upgrades from cost reductions. Under an EPC arrangement an external organization (ESCO) implements a project to improve the energy efficiency or renewable energy production and uses the stream of incomes from the cost savings to repay the overall costs of the project, including the initial investment. Essentially, in EPC, ESCO's remuneration is based on the demonstrated performance.

Despite the large economic energy saving potential in the EU, nowadays very few ESCOs apply Energy Performance Contracting to the residential market due to high transaction costs, high fragmentation of market, variation of individual needs and behaviours that require customized and personalized treatment and lack of information and expertise on the residential consumer.

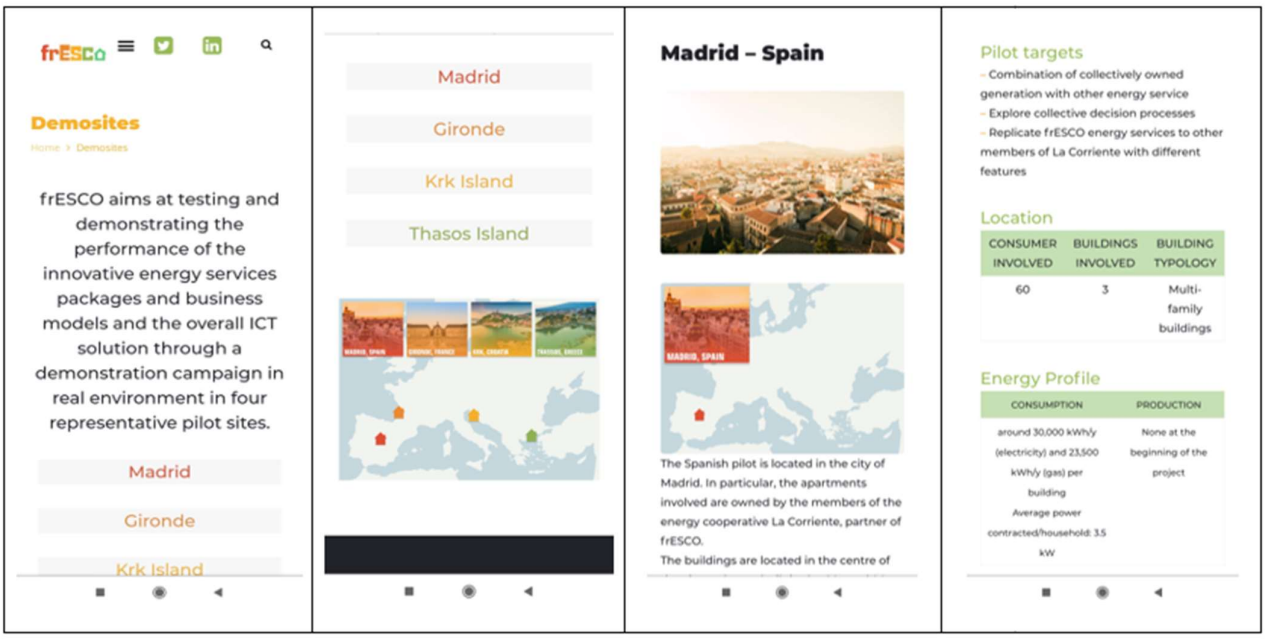
frESCO objectives

- Engage with ESCOs and aggregators in the co-creation of innovative and viable energy service offerings with the use of ICT technologies
- Ensure objective measurement and verification of the performance of the new hybrid energy service offerings, towards facilitating transparent share of benefits between all involved parties
- Integrate existing big data technologies, tools and libraries, with energy-relevant legacy systems and ICT-enabled assets and components to accelerate the data management and analysis cycle for powering the frESCO innovative services, turning the 4 Big Data V's into Stakeholder Value
- Complement innovative service models with novel business models and contractual schemes that

7.1.3 frESCO Team

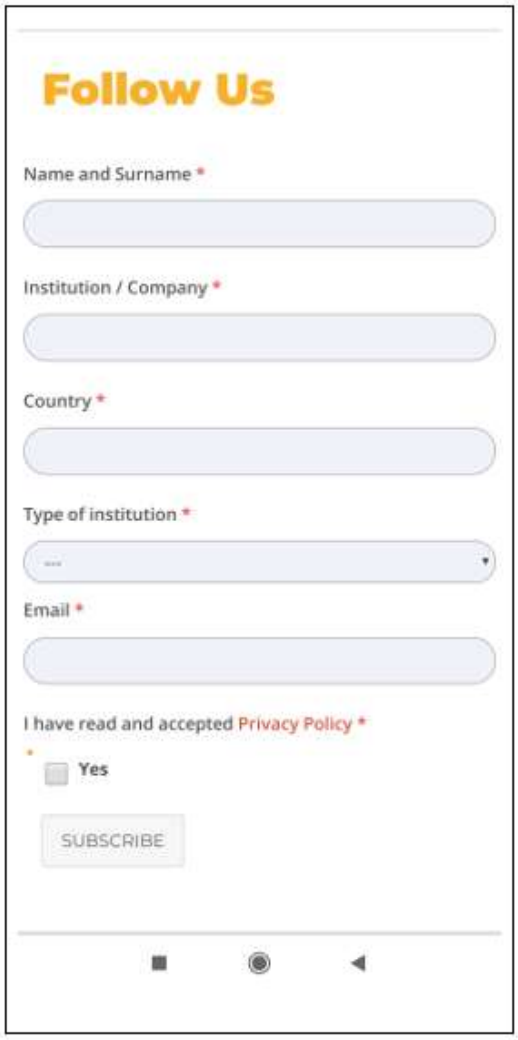


7.1.4 Demosites



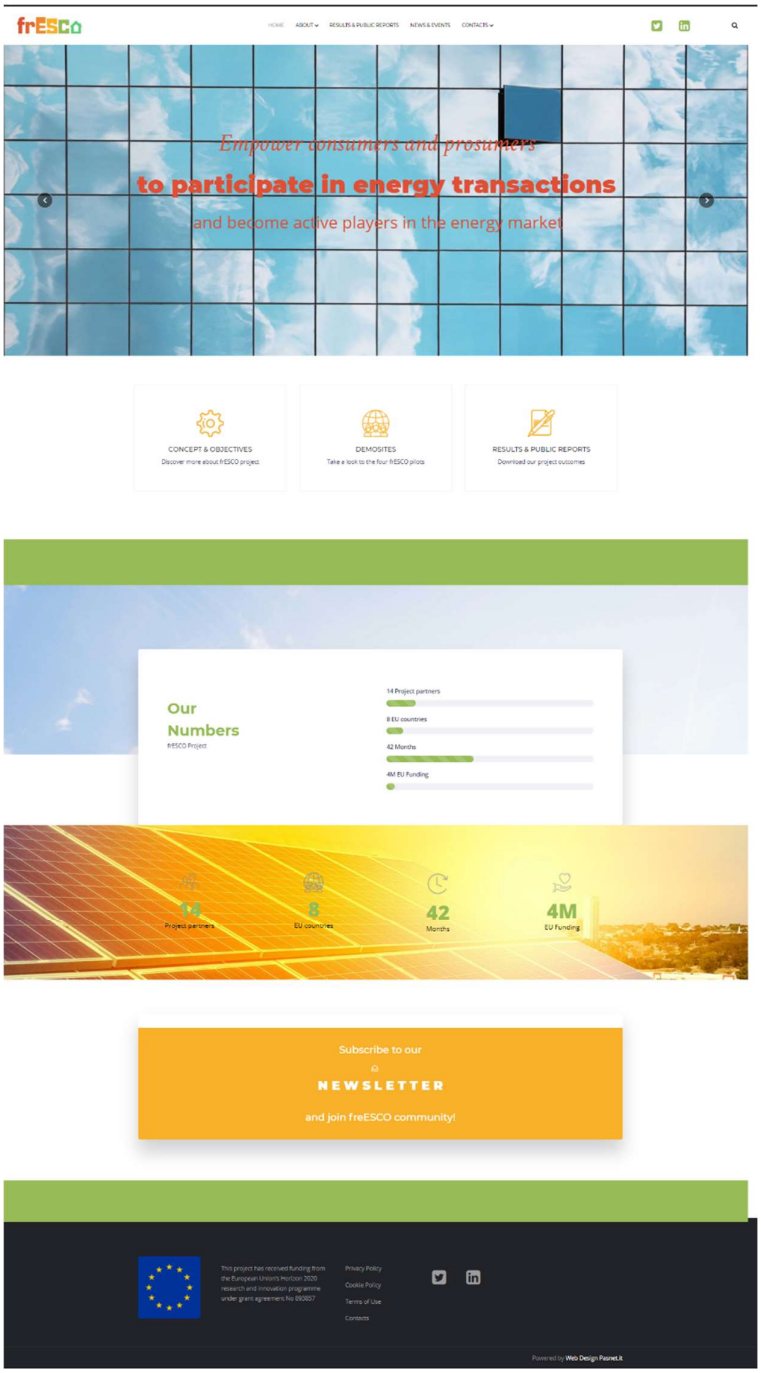
7.1.5 News & Events

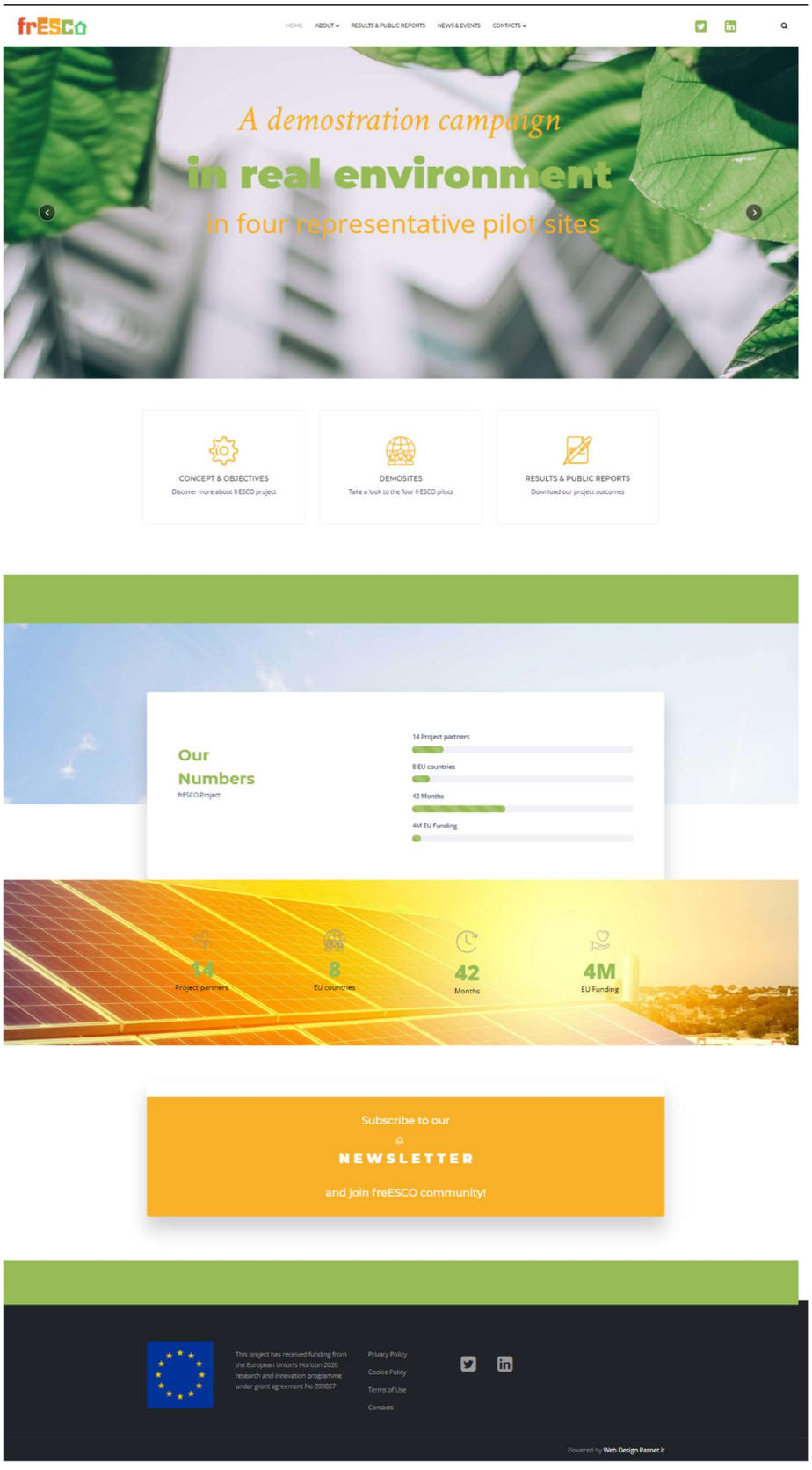
7.1.6 Newsletter



7.2 Annex 2 Website Full Pages Desktop Screenshots

7.2.1 Home page

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RESULTS & PUBLIC REPORTS
NEWS & EVENTS
CONTACTS
A demostration campaign
in real environment
in four representative pilot sites
CONCEPT & OBJECTIVES
Discover more about frESCO project
DEMOSITES
Take a look to the four frESCO pilots
RESULTS & PUBLIC REPORTS
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Our
Numbers
frESCO Project
14 Project partners
8 EU countries
42 Months
4M EU Funding
14
Project partners
8
EU countries
42
Months
4M
EU Funding
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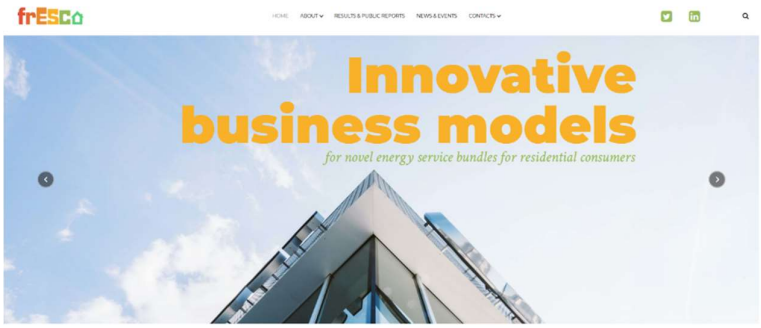
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HOME
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RESULTS & PUBLIC REPORTS
NEWS & EVENTS
CONTACTS
Innovative business models
for novel energy service bundles for residential consumers


CONCEPT & OBJECTIVES
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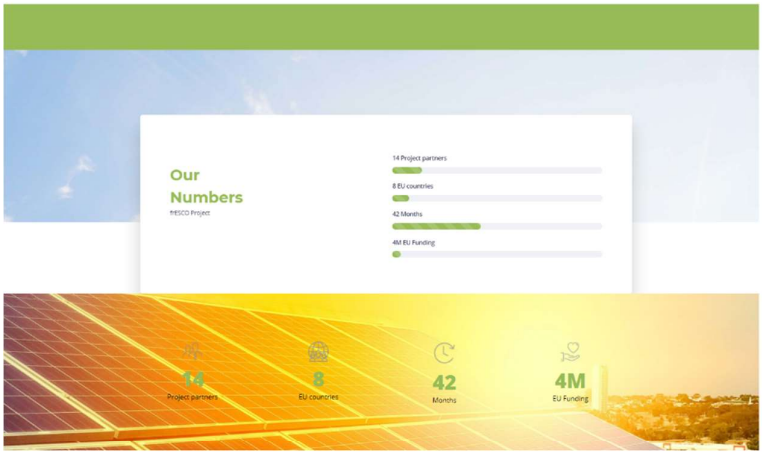
DEMOSITES
Take a look to the four frESCO plots
RESULTS & PUBLIC REPORTS
Download our project outcomes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Months
4M
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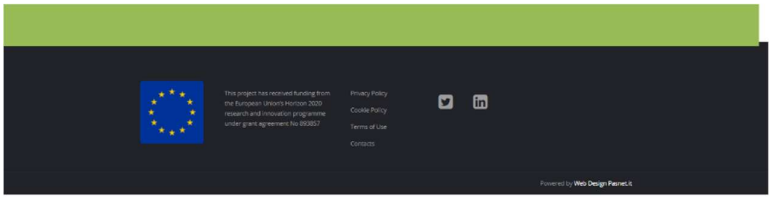
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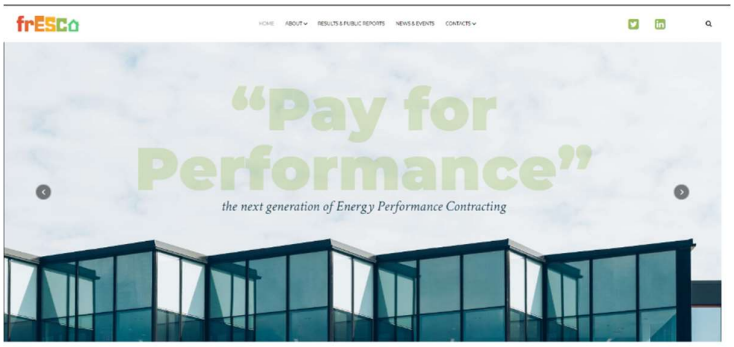
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NEWS & EVENTS
CONTACTS
"Pay for Performance"
the next generation of Energy Performance Contracting


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Discover more about frESCO project
DEMOSITES
Take a look to the four frESCO pilots
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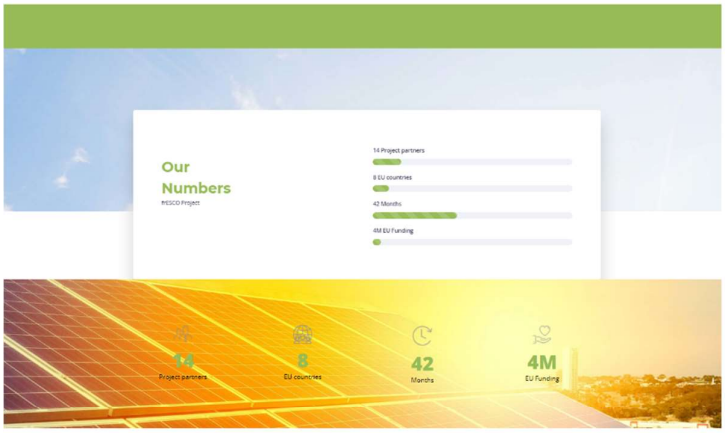
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14 Project partners
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4M EU Funding
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Project partners
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EU countries
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Months
4M
EU Funding


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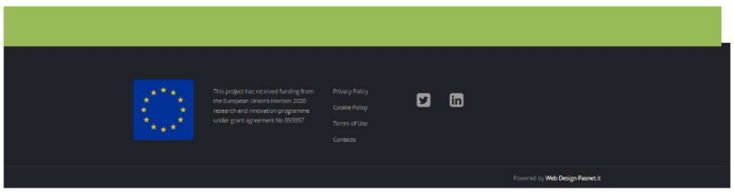
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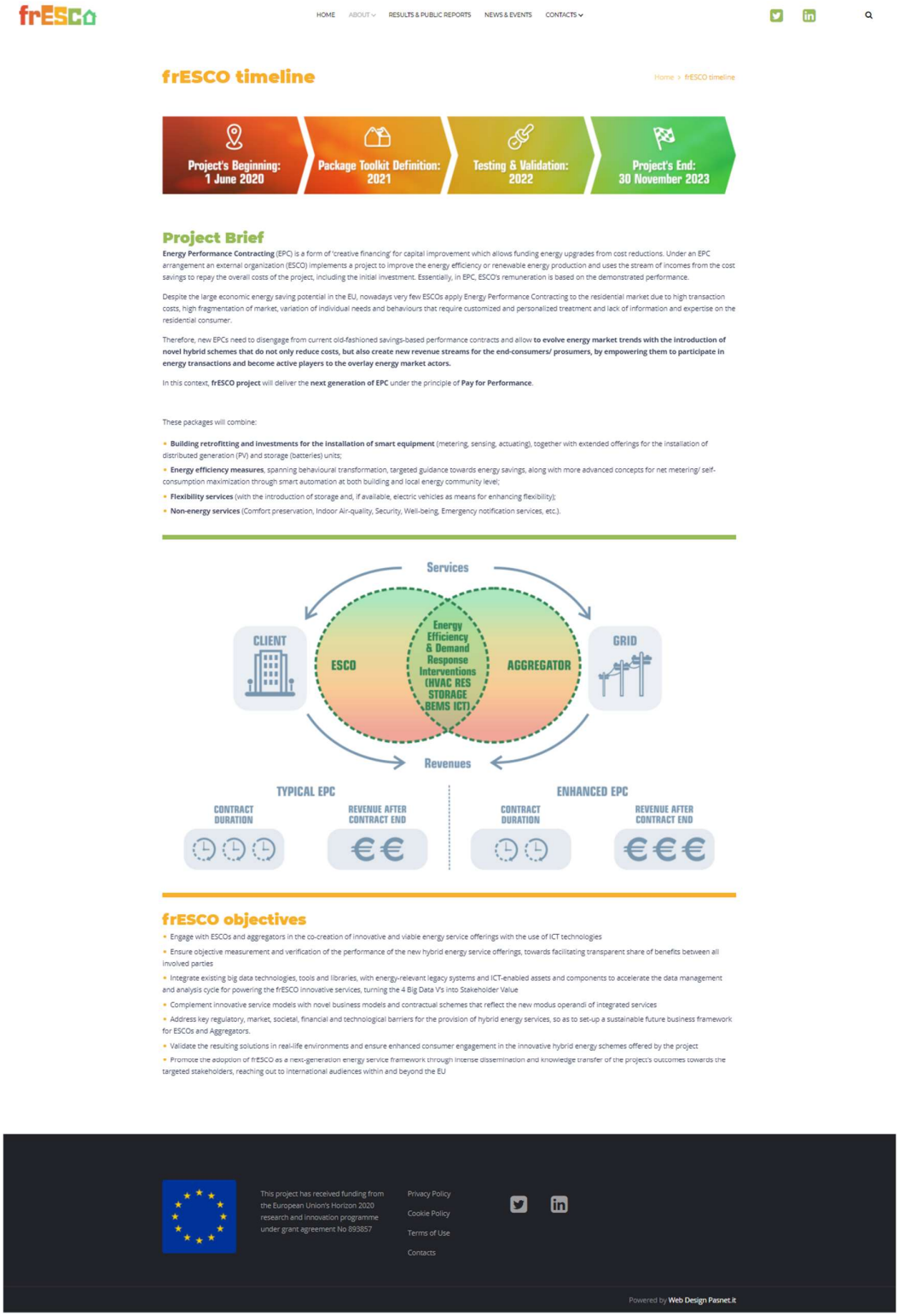
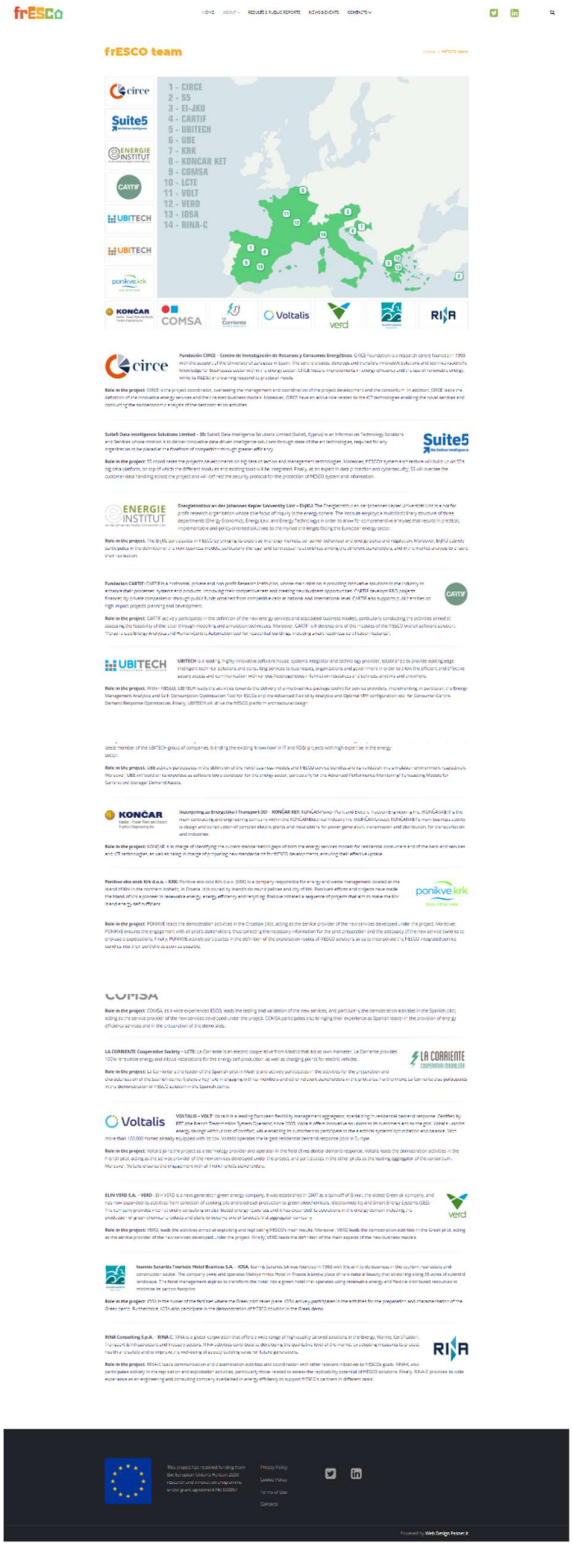
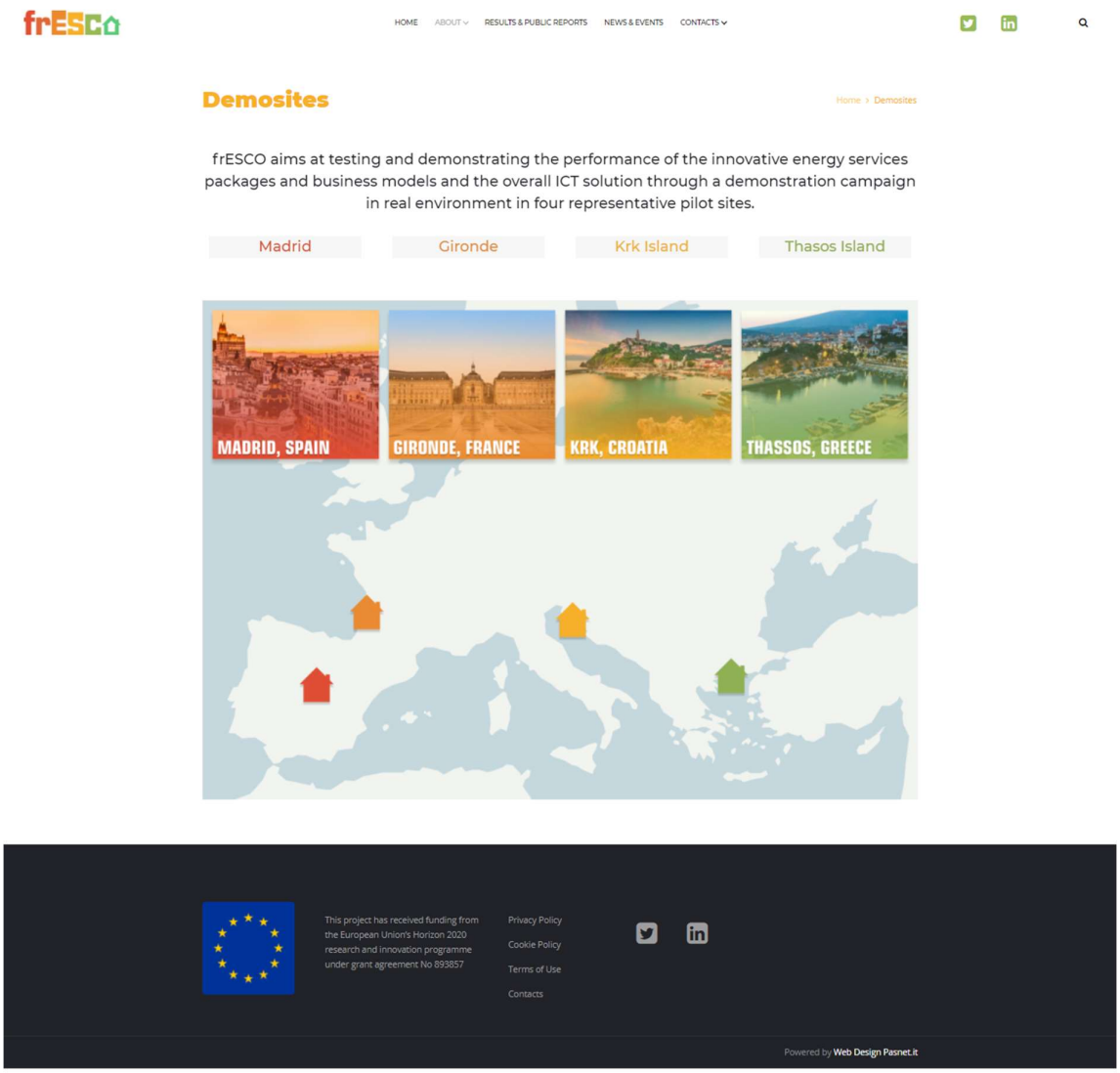
7.2.2 Project Brief



7.2.3 frESCO Team



7.2.4 Demosites

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Thasos Island
frESCO aims at testing and demonstrating the performance of the innovative energy services packages and business models and the overall ICT solution through a demonstration campaign in real environment in four representative pilot sites.
Makryammos Bungalows Hotel in the island of Thasos – Greece
THASSOS, GREECE
Makryammos Bungalows lies on the northern part of the island.
It is a place of rare natural beauty, dwelling on a pine-covered hillside that finally subsides into a scenic cove overlooking the Aegean Sea.
The hotel is built on a 35 acres site, with more than 30 detached bungalows and a number of central main facilities / buildings.
Pilot targets
- Understanding of seasonality and variety in load and generation profiling through monitoring of energy production and use in a touristic resort with variable energy usage
- Design of energy services for commercial customers with high sensitivity and variability of customer interaction.
- Facilitate the transformation to an environmentally friendly hotel
- Optimization of the self-consumption rate on the bungalows
Location
CONSUMER INVOLVED
BUILDINGS INVOLVED
BUILDING TYPOLOGY
Up to 400
30
Rental Bungalows
Three of the bungalows have been recently equipped with photovoltaic plants.
The hotel is in a transformation process in becoming a "green hotel" and will offer its facilities for the Greek pilot and local expertise in the management of its energy infrastructure.
Energy Profile
CONSUMPTION
PRODUCTION
450kW maximum demand
80,000 kWh/yr (electricity)
3 PV units totalling circa 50kW
65,000 kWh (electricity)
56 SunPower photovoltaic modules 250Wp each
54 SunPower photovoltaic modules 250Wp each
36 SunPower photovoltaic modules 250Wp each
One Fronius Symo 12kW on grid inverter
One Fronius Symo 12kW on grid inverter
One Fronius Symo 12kW on grid inverter
One Fronius Symo 5kw hybrid inverter
One Fronius Symo 5kw hybrid inverter
One Fronius Symo 5kw hybrid inverter
One BYD HVM 8.3 lithium ion battery.
One BYD HVM 8.3 lithium ion battery.
One BYD HVM 8.3 lithium ion battery.
Activities conducted in the pilot
Enhanced FPC services proposed by frESCO will look into maximising the energy savings at the Greek pilot by sharing consumption in different loads and potentially aggregating flexibility for providing further services and maximising the benefits of the infrastructure. In particular, frESCO will explore the business case behind integrated energy services bundles including, at least, optimal self-consumption (PV + batteries), automation and flexibility services – since the Greek market has started its first steps to open residential demand response, placing comfort at the centre of the offer.
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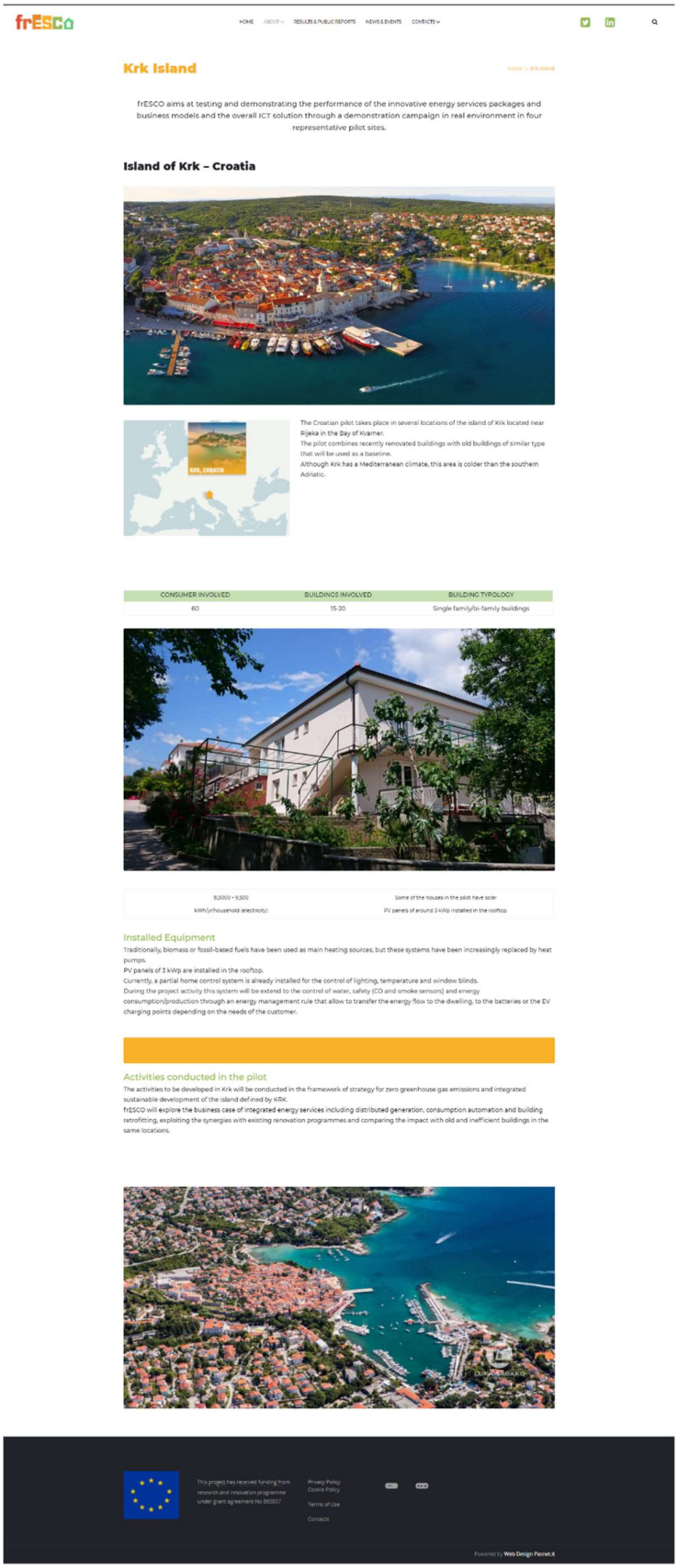
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Krk Island
frESCO aims at testing and demonstrating the performance of the innovative energy services packages and business models and the overall ICT solution through a demonstration campaign in real environment in four representative pilot sites.
Island of Krk – Croatia
KRK, CROATIA
The Croatian pilot takes place in several locations of the island of Krk located near Rijeka in the Bay of Kvarner.
The pilot combines recently renovated buildings with old buildings of similar type that will be used as a baseline.
Although Krk has a Mediterranean climate, this area is colder than the southern Adriatic.
CONSUMER INVOLVED
BUILDINGS INVOLVED
BUILDING TYPOLOGY
60
15-20
Single family/bi-family buildings
8,5000 ÷ 9,500 kWh/(household electricity)
Some of the houses in the pilot have solar PV panes of around 3 kWp installed in the rooftop.
Installed Equipment
Traditionally, biomass or fossil-based fuels have been used as main heating sources, but these systems have been increasingly replaced by heat pumps.
PV panels of 3 kWp are installed in the rooftop.
Currently, a partial home control system is already installed for the control of lighting, temperature and window blinds.
During the project activity this system will be extend to the control of water, safety (CO and smoke sensors) and energy consumption/production through an energy management rule that allow to transfer the energy flow to the dwelling, to the batteries or the EV charging points depending on the needs of the customer.
Activities conducted in the pilot
The activities to be developed in Krk will be conducted in the framework of strategy for zero greenhouse gas emissions and integrated sustainable development of the island defined by KRK.
frESCO will explore the business case of integrated energy services including distributed generation, consumption automation and building retrofitting, exploiting the synergies with existing renovation programmes and comparing the impact with old and inefficient buildings in the same locations.
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Madrid

frESCO aims at testing and demonstrating the performance of the innovative energy services packages and business models and the overall ICT solution through a demonstration campaign in real environment in four representative pilot sites.

Madrid – Spain

The Spanish pilot is located in the city of Madrid. In particular, the apartments involved are owned by the members of the energy cooperative La Corriente, partner of frESCO.
The buildings are located in the centre of the city and were built in the 80s and 90s.
The climate in the city is Mediterranean-Continental, with very hot summers and cold winters.

- Explore collective decision processes
- Replicate frESCO energy services to other members of La Corriente with different features

Location

CONSUMER INVOLVED	BUILDINGS INVOLVED	BUILDING TYPOLOGY
60	3	Multi-family buildings

Energy Profile

CONSUMPTION	PRODUCTION
around 30,000 kWh/y (electricity) and 23,500 kWh/y (gas) per building Average power contracted/household: 3.5 kW	None at the beginning of the project

Installed Equipment

The apartments heating system is based on gas boilers (central heating), whereas heat pumps are also installed individually for cooling in summer.

Activities conducted in the pilot

The main goals of the project in Madrid's pilot are to maximize PV production, reduce consumption and test the flexibility of energy demand, coupled with the rehabilitation of the building envelope, is a great challenge that will show costs, savings and potential of the frESCO tools.
More specifically, the interest is focused in exploring an integrated service package including the installation of collectively owned PV panels (in the building rooftop) and batteries – taking advantage of recent Spanish legislation that finally opened the possibility of shared owned distributed energy assets – with automation and non-energy services.
Flexibility through demand response, although not yet possible in Spain, will be studied through simulation.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 893857

Gironde

frESCO aims at testing and demonstrating the performance of the innovative energy services packages and business models and the overall ICT solution through a demonstration campaign in real environment in four representative pilot sites.

Gironde – France

The French pilot takes place in suburban areas of the Gironde Department, at the South West cost of France in the region of Nouvelle Aquitaine. Gironde is the largest department in metropolitan France, with an area of 10,000 km2 and a population over 1.5 million people.
The region has oceanic climate, with an average temperature of 6 degrees in winter and 20 degrees in summer.

Pilot targets

- Demonstration of the approaches from the novel energy services
- Minimise the energy consumption from consumers while maintaining comfort conditions

60	20	Single-family buildings

Energy Profile

CONSUMPTION	PRODUCTION
8,379 kWh/yr/household (electricity) Average peak load: 3.6 kW	Non applicable

Installed Equipment

The buildings are a mixed of older and newer single-family houses, with medium to good isolation and electric heating.

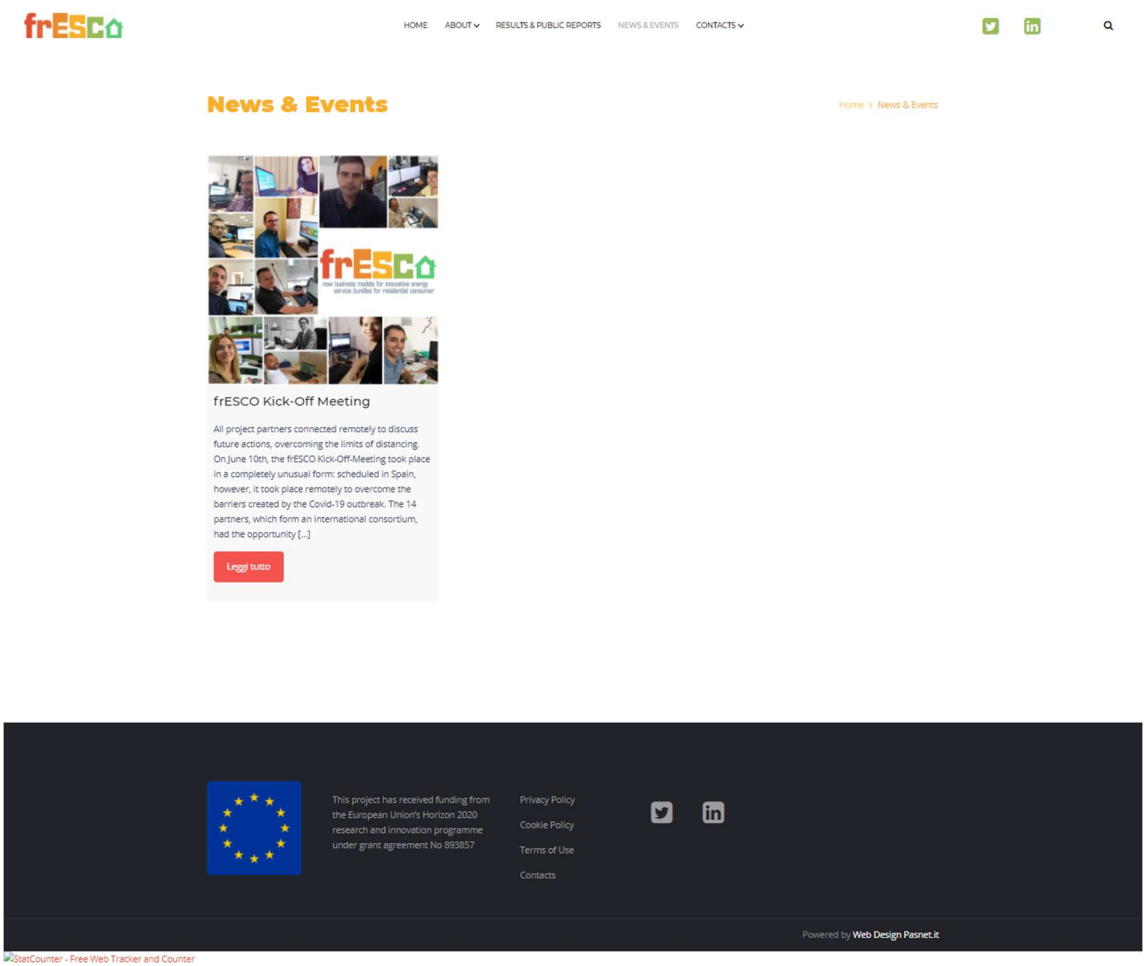
Activities conducted in the pilot

frESCO's integrated service bundles in the French pilot will mainly focus on the combination of flexibility services (being France the most advanced market in this field) with automation, behavioural shifts in the consumer and non-energy services.
Finding the right compromise and balance in the value stream will be the main challenge in this pilot phase. frESCO will have to determinate what is the appropriate value repartition that has to be distributed between the end-user (energy savings, self-consumption optimisation, cash retribution) and the operator (profitability of the offer) for a large-scale dissemination of the solution.
Other challenges include:

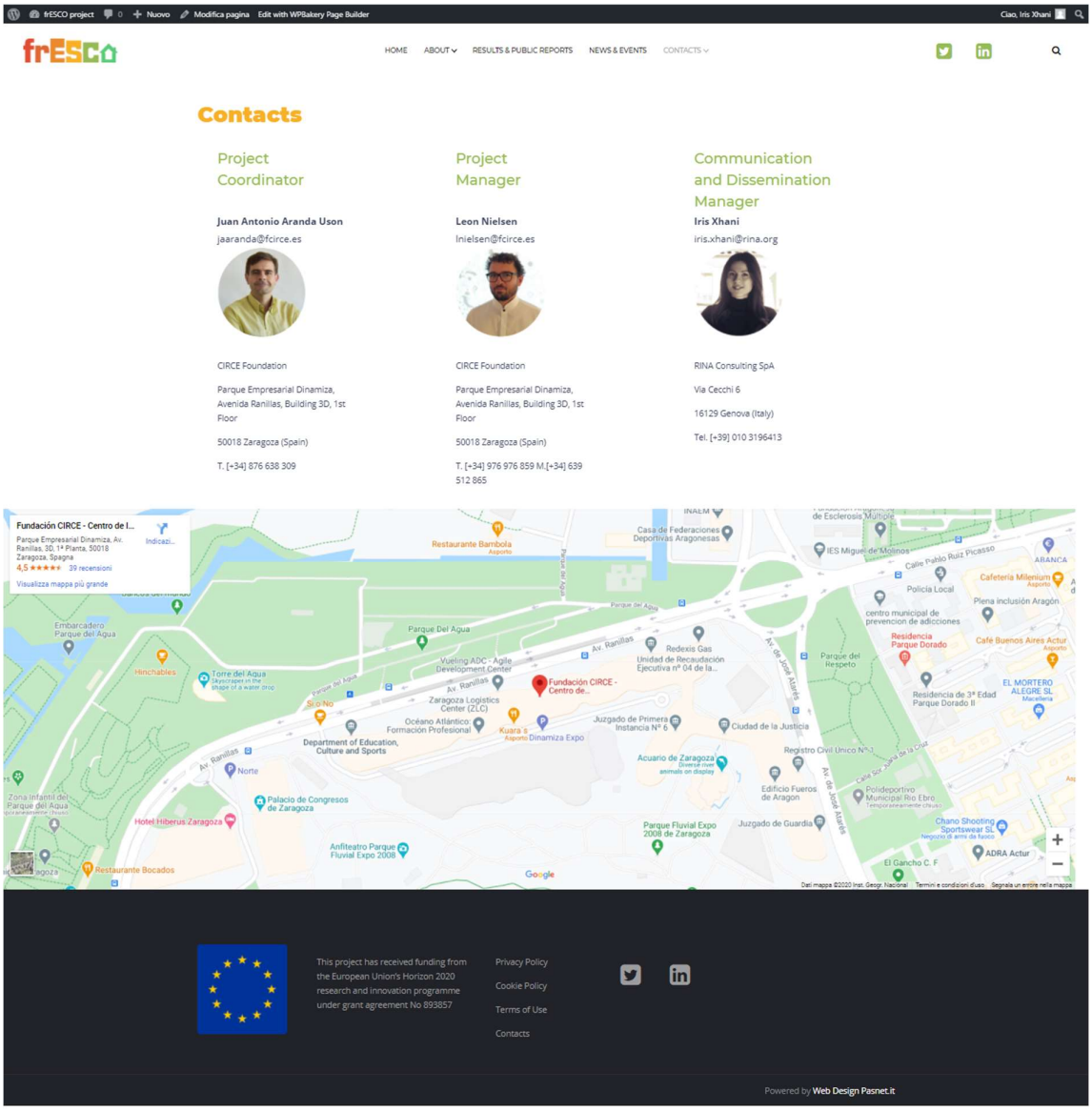
- The changes required in the current regulatory framework to unlock the design of such solutions
- The possible need to "stack" revenues
- The appetite of end users for innovative and engaging offers

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 893857

7.2.5 News & Events



7.2.6 Contact us



7.2.7 Newsletter