



Deliverable 7.2
Project Website
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Project Partners

No	Name	Short name	Country
1	ELES DOO SISTEMSKI OPERATOR PRENOSNEGA ELEKTROENERGETSKEGA OMREZJA	ELES, d.o.o.	Slovenia
2	AUSTRIAN POWER GRID AG	APG	Austria
3	MAVIR MAGYAR VILLAMOSENERGIA-IPARI ATVITELI RENDSZERIRANYITO ZARTKORUEN MUKODO RESZVENYTARSASAG	MAVIR ZRT	Hungary
4	COMPANIA NATIONALA DE TRANSPORT ALENERGIEI ELECTRICE TRANSELECTRICA SA	TRANS	Romania
5	ELEKTROINSTITUT MILAN VIDMAR	EIMV	Slovenia
6	ELEKTROENERGETSKI KOORDINACIONI CENTAR DOO	EKC	Serbia
7	ELEKTRO ENERGIJA, PODJETJE ZA PRODAJO ELEKTRIKE IN DRUGIH ENERAGENTOV, SVETOVANJE IN STORITVE, D.O.O.	EE	Slovenia
8	GEN-I, TRGOVANJE IN PRODAJA ELEKTRICNE ENERGIJE, D.O.O.	GEN-I,d.o.o.	Slovenia
9	SAP SE	SAP SE	Germany
10	CYBERGRID GMBH	CYBERGRID	
11	GEMALTO SA	GTO	France
12	3E NV	3E	Belgium



1 Introduction

1.1 About FutureFlow

Four European TSOs of Central-Eastern Europe (Austria, Hungary, Romania, Slovenia), associated with power system experts, electricity retailers, IT providers and renewable electricity providers, propose to design a unique regional cooperation scheme: it aims at opening Balancing and Redispatching markets to new sources of flexibility and supporting such sources to act on such markets competitively. By means of a prototype aggregation solution and renewable generation forecasting techniques, flexibility providers – distributed generators (DG) and commercial and industrial (C&I) consumers providing demand response (DR) – are enabled, to provide competitive offers for Frequency Restoration Reserve (including secondary control activated with a response time between 30 seconds and 15 minutes). Retailers act as flexibility aggregators and pool the resource in order to provide the products required by the TSO. A comprehensive techno-economic model for the cross-border integration of such services involves a common activation function (CAF) tailored to deal with congested borders and optimized to overcome critical intra-regional barriers. The resulting CAF is implemented into a prototype Regional Balancing and Redispatching Platform, securely integrated within the four TSOs' IT systems: this makes research activities about cross-border integration flexible while linking with the aggregation solution. Use cases of growing complexity are pilot-tested, going from the involvement of DR and DG into national balancing markets to cross-border competition between flexibility providers. Based on past experience with tertiary reserve, participating C&I consumers and DG are expected to provide close to 40 MW of secondary reserve. Impact analyses of the pilot tests together with dissemination activities towards all the stakeholders of the electricity value chain will recommend business models and deployment roadmaps for the most promising use cases, which, in turn, contribute to the practical implementation of the European Balancing Target Model by 2020.

1.2 This deliverable

This report, i.e. the FutureFlow Deliverable 7.2, describes the website created for external communication about and on the project. This deliverable relates to the FutureFlow work package (WP) 7 'Communication and dissemination of the project results' which includes the objectives

- To develop a communication and dissemination plan guaranteeing the technical, market and public coverage of the project results,
- To support the exploitation of the project outputs by consolidating the project visibility among stakeholders at EU level and towards users through a project website and additional dissemination and communication tools and materials, and
- To enable smooth communication and knowledge sharing among the targeted stakeholders at EU level.

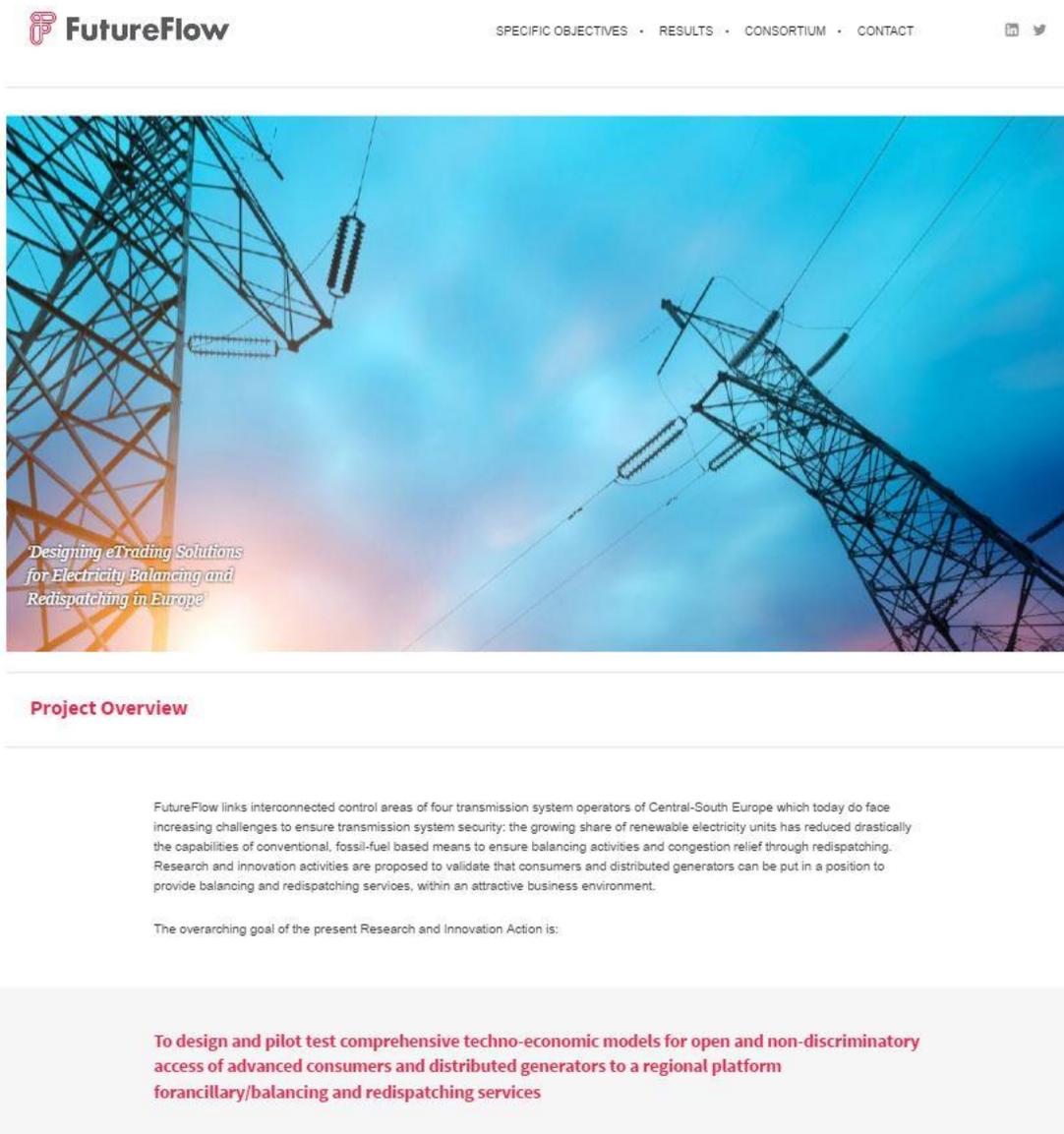
2 The project website structure

The website of the H2020 FutureFlow project is available at www.futureflow.eu and is responsive to the browser, making it also readable from mobile devices.

All sections of the website have on top the FutureFlow logo and on the bottom a reference to the Horizon 2020 funding by the European Union. Also a link to the main home page and the other tabs is included and accessible from all sub-pages.

2.1 Main page

The main page presents the FutureFlow project at a glance, explaining the main objectives of the project and showing an overview graph of the aimed technical interactions between the new balancing providers and the FutureFlow's prototype platform for cross-boundary balancing.



The figure below illustrates the functional interactions between the prototype flexibility aggregation platforms and the prototype regional

Figure 1. Screenshot of the FutureFlow website's home page.

2.2 Main menu

The FutureFlow's web page contains five specific tab pages:

- The first page is the general home page of the FutureFlow website and denotes a basic project overview as described above.
- The second page denotes the specific objectives of the FutureFlow project, structured per workpackage.

- The third page elaborates on the news and results of the FutureFlow project, linking to all deliverables.
- A fourth page presents the project consortium, and
- A last page provides the reader with the contact details for the FutureFlow project.

2.2.1 Project overview

As shown in Figure 1, the home page gives a general project overview of the project, summarizing the overarching goal of the present Research and Innovation Action as:

To design and pilot test comprehensive techno-economic models for open and non-discriminatory access of advanced consumers and distributed generators to a regional platform for ancillary / balancing and redispatching services.

including a synthetic illustration of interactions between the new balancing providers and the FutureFlow project's prototype platforms and their synergetic effects.

2.2.2 Specific objectives

As shown in Figure 2, the second tab of the FutureFlow website elaborates in-depth on the specific objectives of the H2020 project. For each of the defined work packages, the main research questions and goals are described at two levels:

- A short condense description of each of the work packages, and
- A longer explanation of the main objectives of each of the work packages when clicked on the 'more info' button next to each of the short descriptions.

Specific objectives

The main objective of the project can be split into several specific objectives:

01 To design and configure cross-border balancing and redispatching mechanisms, based on a harmonized set of requirements for demand response and distributed generation in automatic frequency restoration reserve markets

more info 

02 To prototype the demand response and distributed generation flexibility aggregation platforms for frequency restoration reserve.

more info 

03 To prototype a regional balancing and redispatching platform embedding a common activation function

A virtual ICT environment, the regional balancing and redispatching platform, is prototyped so that each balancing and redispatching service provider is able to provide cross-border balancing and redispatching services to control zones outside its member state borders, including automatic frequency restoration reserve services. It embeds a common activation function, compatible with the requirements of several network codes. Each transmission system operator connected to this regional platform is then able to perform its activities by using the offers from generators and consumers possibly located in the control area of another transmission system operator also connected to the regional balancing and redispatching platform.

less info 

04 To pilot test the prototype flexibility aggregation platforms and the prototype regional balancing

Figure 2. Screenshot of the FutureFlow website's tab page on the specific project objectives. Each of the mentioned objectives are expandable to show more information.

2.2.3 News & results

Organized per work package, the third tab on news and results elaborates on the achieved results of the FutureFlow package, presenting all the expected deliverables and linking to the deliverables that yet have been finished.

The same page will be used to present news items. In order to keep the website attractive for external users, all partners are requested to report to EKC (zoran.vujasinovic@ekc-ltd.com) any potential news related to the project that could be added.

Results

On this page you will find all deliverables of the FutureFlow project, sorted per workpackage one to six. If the hyperlink to one of the deliverables is not yet set public, it means that the document has not yet been delivered and/or approved for publication.

01 **Cross-border integration of automatic frequency restoration reserve markets with demand response and distributed generation**

[more info](#) 

02 **Prototype demand response and distributed generation flexibility aggregation platforms for automatic frequency restoration reserve**

In the second work package, novel automatic frequency restoration reserve functionalities will be specified, developed, prototyped and validated, according to the needs and expectations of the transmission system operators and the retailers/aggregators. It focus so that flexibility aggregation platforms of independent companies are advanced to support the automatic frequency restoration reserve services as well as the interfaces to the regional balancing and redispatching Platform prototype and provide state of the art services to the commercial and industrial consumers and distributed generators.

2.1 Specification of the automatic frequency restoration reserve functionalities of quantify the technology and economic impacts of the pilot tests performed by the consortium flexibility aggregation platforms

2.2a Initial novel automatic frequency restoration reserve software suite

2.2b Novel automatic frequency restoration reserve software suite including experience feedback from pilot tests

2.3 Validation report of prototyped automatic frequency restoration reserve software suite

2.4 Report on trustful ICT connections between national automatic frequency restoration reserve systems

[less info](#) 

03 **Prototype regional platform with common activation function for automatic frequency**

Figure 3. Screenshot of the FutureFlow website's tab page on the results. Each of the mentioned work package are expandable to show more information and providing links to all finished deliverables.

2.2.4 Consortium

The consortium tab briefly presents all partners in the FutureFlow project. Also here, the website presents two levels of detail:

- A overview of the partners organized per country, and
- A longer explanation of the partners when clicked on the 'more info' button next to each of the short descriptions.

Consortium

The consortium has all key competences along the value chain of the balancing markets, demand response, distributed generation, modelling

- Four interconnected European TSOs (ELES, APG, TRANSELECTRICA and MAVIR), operating rather small power systems (peak consumption between 2 GW and 11 GW) with various production portfolios,
- Two research centres (EIMV, EKC) working closely with TSOs with key competences in electricity market design, modelling and simulation, including cross-border balancing and demand-side response,
- Two European retailers operating within the control areas of the TSOs (ELEKTRO ENERGIJA, GEN-I),
- One major IT solution provider (SAP),
- One innovative company specialised in demand response management (cyberGRID),
- One leading expert company in digital security (Gemalto),
- One firm specialized in software solutions for sustainable energy projects (3E).

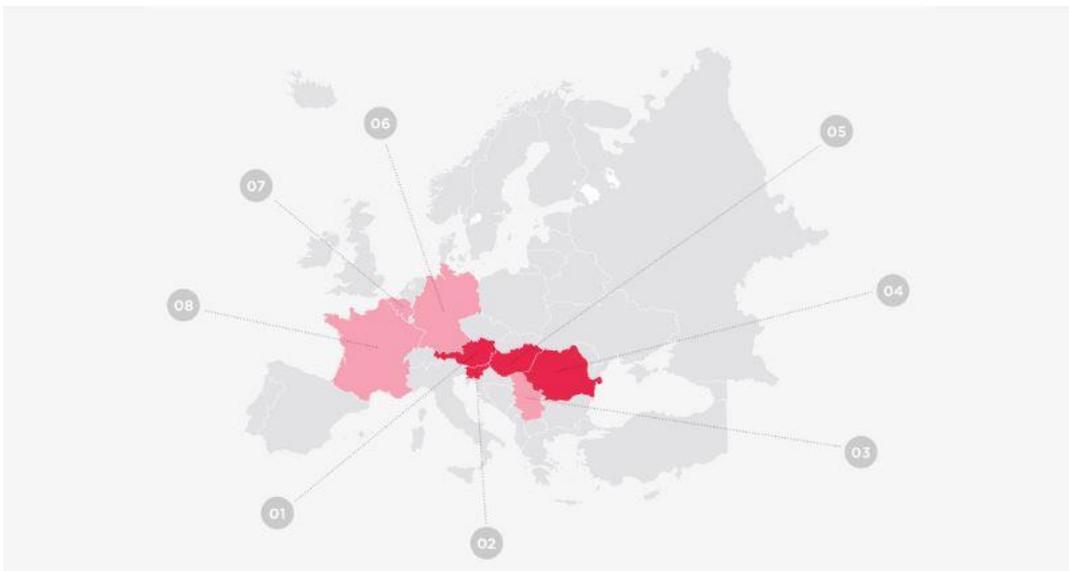


Figure 4. Screenshot of the FutureFlow website's tab page on the project consortium.

2.2.5 Contact

At last, a contact page is added leading the external visitors of the FutureFlow web page to the project coordinator, i.e. ELES.

2.3 Means to achieve good referencing of the website

Links to the official website of each partner have been added. Similarly, all partners will be asked to link back to the FutureFlow web page.

Actualities are created as often as possible, i.e. at the moment, mainly by adding public deliverables,

articles about FutureFlow produced by partners in their country, information about events where the H2020 FutureFlow project was presented.

Email will be sent on a regular basis to all partners in order to collect news from them to keep the website up to date and of interest for the project's stakeholders.

Partners are requested to create short descriptions of the project on their home organizations website and to link from there to the official FutureFlow project web page.