Mobility **E**nvironmentally-friendly, **I**ntegrated and economically **S**ustainable **T**hrough innovative **E**lectromobility **R**echarging infrastructure and new business models

PROJECT OVERVIEW

MEISTER consortium

1. ETRA INVESTIGACION Y DESARROLLO SA (ETRA) - Spain
2. AYUNTAMIENTO DE MALAGA (MLG) - Spain
3. NOVADAYS SL (NOV) - Spain
4. VMZ BERLIN BETREIBERGESELLSCHAFT MBH (VMZ) - Germany
5. INSTITUT FUR KLIMASCHUTZ ENERGIE UND MOBILITAT-RECHT, OKONOMIE UND POLITIK EV (IKEM) – Germany
6. GEWOBAG WOHNUNGSBAUAKTIENGESELLSCHAFT BERLIN (GEW) -Germany
7. ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS (CERTH) - Greece
8. E.ON SOLUTIONS GMBH (EON) - Germany
9. RISE AB (RISE) - Sweden
10. SENATE DEPARTMENT FOR THE ENVIRONMENT, TRANSPORT AND CLIMATE PROTECTION BERLIN (SenUVK) -Germany
11. STOCKHOLMS STAD (STOCK) - Sweden

MEISTER consortium

Public entities

Málaga City Council

Berlin

Stockholms stad

Industry

etra I+D

>novadays

vmz

e·on

Research Center

IKEM

RI. SE

CERTH

Housing company

Gewobag

Project at a glance

36 months
Duration

September 2018
Starting date

Coordinator
etra I+D

H2020
Topic

Challenge

to **change the paradigm in the electromobility market** by providing **interoperable platforms** and **services** for an **easy, convenient and barrier-free access** to charging, billing and smart grid services, including an increase of the **use of RES** and **self-generation to power EVs.**

MOISTER

Pilot sites

- Malaga – Spain
- Stockholm – Sweden
- Berlin – Germany

6 M€
Budget

730 PMs

4 Countries
11 partners

- Spain
- Germany
- Greece
- Sweden

Strategic goals

O1. Innovative and sustainable business models for smart e-mobility

- **Reduce installation and operational costs** for charging infrastructure operators **(increase offer)**
- **Reduce charging prices** for customers (**increase demand**)

O2. Deployment of an e-mobility interoperability platform

- **Role models** for **operator** and **provider** - **independent, non-discriminatory information**, **authentication** and **billing schemas** ensuring **interoperability**
- Integrated **real-time information** and **booking** services
- e-mobility **information platform** for smart cities **with three different interfaces**

O3. Integration of e-mobility in the cities' SUMPs and city planning process

- Planning and use of **e-urban space**
- Planning and use of **e-logistics hubs** and **distribution centers**
- Creation of a **European eMobility Expertise Centre (EeMEC)**

O4. Integration with smart grid services

- **Charge scheduling** to **optimise costs** and **RES use**
- EV as supporting **storage for private use**
- EV as supporting **storage for DSO**

MEISTER products

P1. MEISTER Replication, Market Uptake and Deployment Handbook

Description:

Toolset that gives access to the main **project results**, including:

- **BMs** defined by the project
- **How to use the technological solutions** (P2, 3, 4 & 5)
- **Practical results** from the BMs validation at the project sites
- **Supporting legal, administrative and financial tools**

Added-value services:

- **Key outcomes** of the project for boosting large scale deployment of electromobility
- **Lessons learned** from the real application and validation of solutions and products
- Operational **flexibility and user-friendliness**

P1. MEISTER Replication, Market Uptake and Deployment Handbook

MEISTER products

P2. MEISTER Roaming & Accounting Platform

Description:

Independent platform for e-mobility providers that enables an **easy, non-discriminatory, convenient and barrier-free access** to end users for EV charging billing features:

- wherever Electric Vehicle Supply Equipment (EVSE) is located
- whichever EV is used
- whoever operates the EVSE
- whoever supplies the charging service and electricity

Added-value services:

- **Transparent B2B services** establishing connections between different EVSE operators, e-mobility service providers and the platform
- Adoption of **open standards and most used protocols** for roaming
- **Integration** of already **existing platforms**

P2. MEISTER Roaming and Accounting Platform

MEISTER products

P3. MEISTER Integrated Real-Time Information & Booking Services

Description:

- Smart phone **app** for **EV drivers**
- Mobility display for **housing services**
- Application for **urban logistics companies**
- Smart e-mobility **dashboard for the city management**
- **Backend** (integrated services)

Added-value services:

- Combined **smart parking and charging**
- **Monitoring and real-time information** about public EVSE
- **Searching and routing** to EVSE
- **Booking** of parking slots and charging stations
- **Customized services** for different end-users

P3. MEISTER Integrated Real-Time Information & Booking Services

MEISTER products

P4. MEISTER European eMobility Expertise Centre (EeMEC) and eSUMPS knowledge base

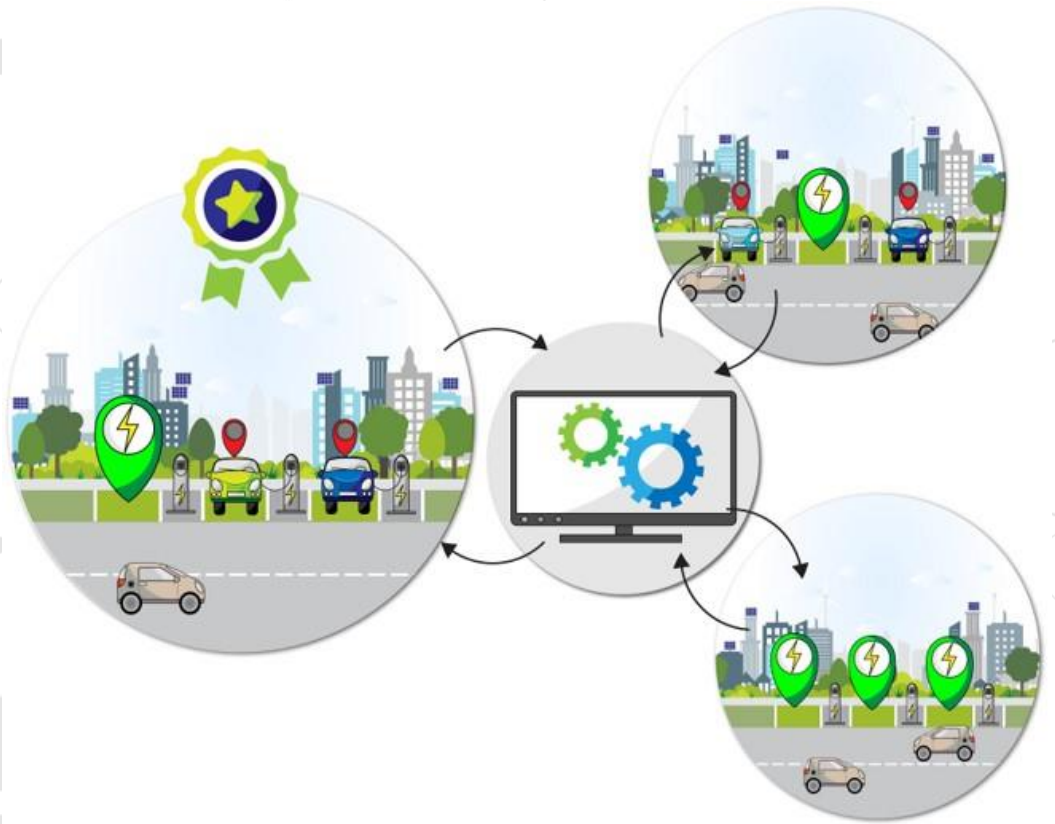
Description:

Technical, legal and financial support centre aimed at facilitating:

- **Transferability of best practices** from MEISTER pilot sites to other cities
- **Assessment to local governments in the eSUMPs process and urban planning** by engineering and consultancy firms

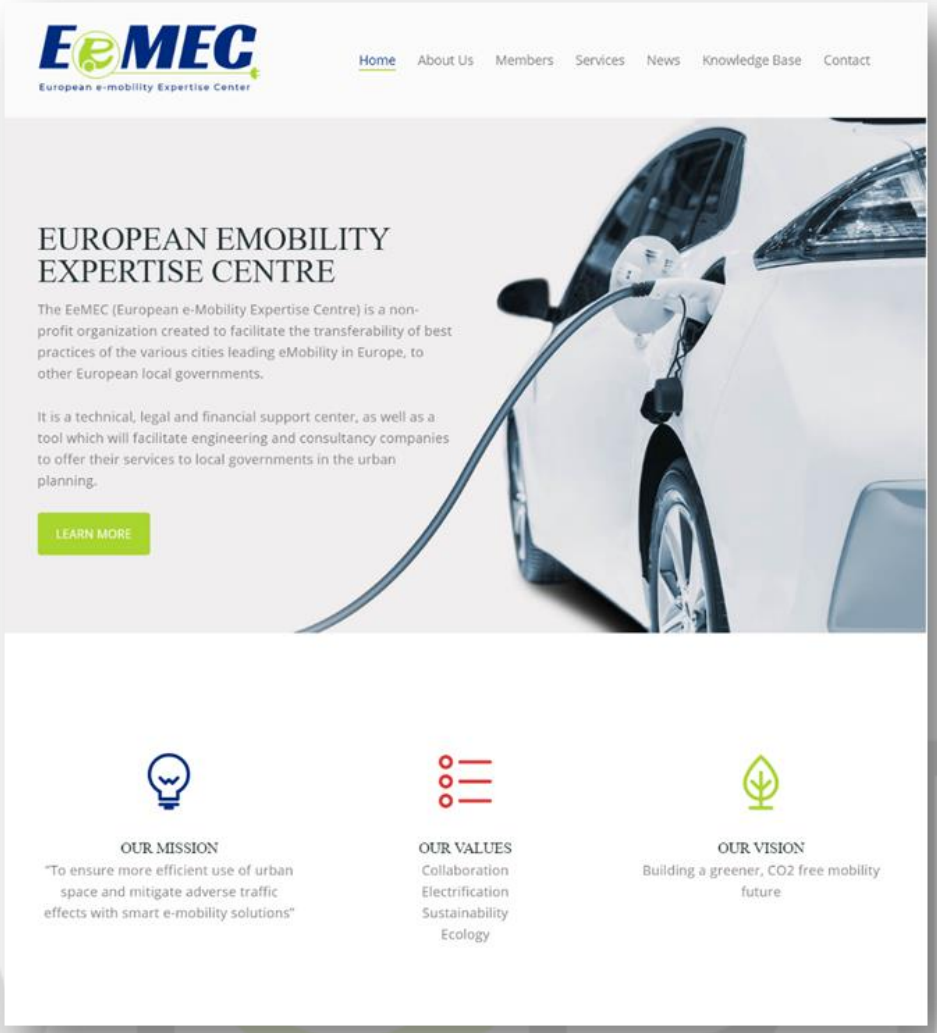
Added-value services:

- **Technical, legal and economic feasibility of alternatives assessment**
- **Transferability of successful solutions for e-mobility implementation**
- **e-mobility services** information available in a **knowledge database for learning purposes**



MEISTER products

P4. MEISTER European eMobility Expertise Centre (EeMEC) and eSUMPS knowledge base: https://www.eemec.eu



MEISTER products

P5. MEISTER Smart Charging and Storage Platform

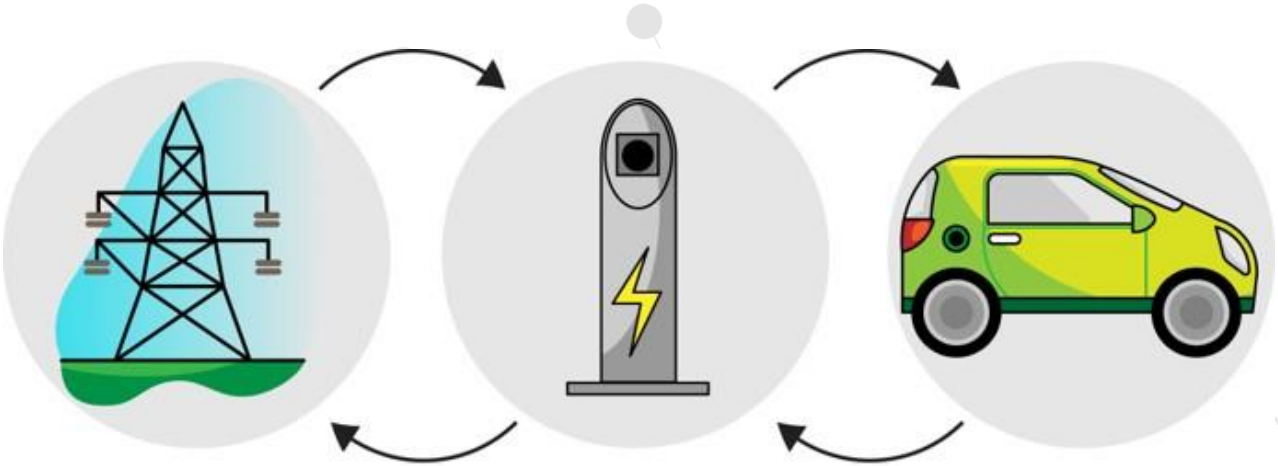
Description:

Platform that allows **vehicle-sharing companies** and **e-fleet managers** to optimize activities related with **smart charging and discharging** of their EVs**:**

- Using **EVs as dynamic distributed storage** devices
- Feeding electricity stored in their batteries back into the local grid when needed **(V2G supply**)

Added-value services:

- Consider the **renewable generation profile**, the **tariffs,** the driver **requirements and preferences**
- Consider different **types of charging**: on-demand, smart charging, V2G
- Allocation of any excess of energy in the distribution network to **stabilize the grid** (demand side management)



P5. MEISTER Smart Charging and Storage Platform

MEISTER Business Models

BM1. e-car sharing as housing service *(Berlin)*

- Provision of e-mobility services for the inhabitants of new buildings and neighbourhoods
- Managed by the housing company

BM2. e-car sharing in municipal fleet *(Malaga)*

- e-car sharing scheme using the city council owned fleet of EVs

BM3. Delivery of home care services with EVs *(Stockholm)*

- Develop procurement criteria which will increase electric vehicles in the private operators' fleet of the service

BM4. City e-logistics enabling ultra-low emissions hubs *(Malaga)*

- Creation of new tools and business models to reduce emissions of logistic operations
- Optimization of the SUMPs and integration of e-mobility services into collaborative urban logistics

BM5. Smart park + charge *(Berlin, Malaga & Stockholm)*

- Integration of smart parkings allowing the charge of EVs
- Facilitates the use of the EV whilst reducing the parking demand with car sharing schemes

BM6. Smart charging *(Berlin, Malaga & Stockholm)*

- EVs integration in the smart grid framework through smart EVSEs
- EV charging/discharging according to grid and environmental requirements (incl. V2G)

MEISTER Pilot sites

BERLIN

Pilot areas: Residential neighborhoods “Mein Falkenberg”, “Wohnpark Mariendorf “ and Lindenstraße

Focus on: business cooperation frameworks and smart mobility services for new urban planning

MALAGA

Pilot areas: City center, Carretera de Cadiz and Humilladero area

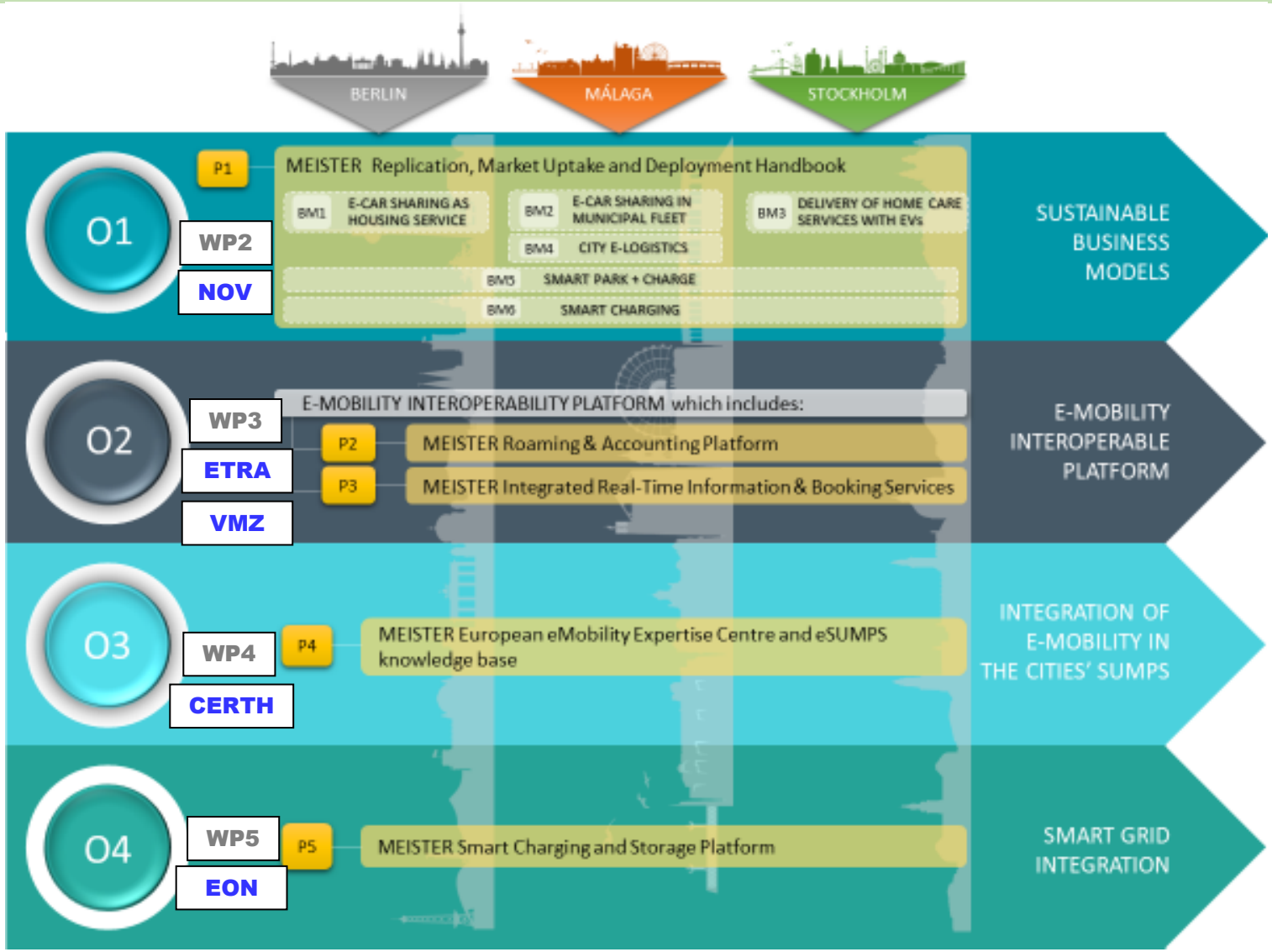
Focus on: e-urban collaborative logistics (last mile distribution) and municipal e-car sharing schemes

STOCKHOLM

Pilot area: The whole city

Focus on: adapting the procurement criteria for fostering the use of EVs for Home Care delivery among private operators

Mapping of MEISTER objectives (O), business models (BMs) and products (P) per pilot site



Associated WP

LEADERSHIP

MEISTER validation

1 BUSINESS MODEL	2 BUSINESS CASES 5 Cases Methodology	3 M13	4 M20	5 M35	6 Validation
BM1: E-car sharing as housing service	BC1: E-car sharing as housing service in BERLIN	SOBC BC1	OBC BC2	FBC BC1	Validation of BM1
BM2: E-car sharing in municipal fleet	BC2: E-car sharing in municipal fleet in MALAGA	SOBC BC2	OBC BC2	FBC BC2	Validation of BM2
BM3: Delivery of home care services with EVs	BC3: Delivery of home care services with EVs in STOCKHOLM	SOBC BC3	OBC BC3	FBC BC3	Validation of BM3
BM4: City e-logistics enabling ultra-low emissions hubs	BC4: City e-logistics enabling ultra-low emissions hubs in MALAGA	SOBC BC4	OBC BC4	FBC BC4	Validation of BM4
BM5: Smart Park and Charge	BC5: Smart park + charge MALAGA	SOBC BC5	OBC BC5	FBC BC5	Validation of BM5
	BC6: Smart park + charge BERLIN	SOBC BC6	OBC BC6	FBC BC6	
	BC7: Smart park + charge STOCKHOLM	SOBC BC7	OBC BC7	FBC BC7	
BM6: Smart Charging	BC8: Smart Charging in MALAGA	SOBC BC8	OBC BC8	FBC BC8	Validation of BM6
	BC9: Smart Charging in BERLIN	SOBC BC9	OBC BC9	FBC BC9	
	BC10: Smart Charging in STOCKHOLM	SOBC BC10	OBC BC10	FBC BC10	

MEISTER BM (1), Business Cases (2) with its 3 phases: SOBC-Strategic Outline Business Case (3), OBC-Outline Business Case (4), FBC-Full Business Case (5), and validation of BM (6)

THANK YOU!
Any Question?

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For more information visit: https://meisterproject.eu/