

DE-RISK the adoption of Local Flexibility Markets to unlock the safe and reliable mass deployment of Renewable Energy Systems

Project Acronym: DE-RISK

HORIZON EUROPE PROGRAMME; Coordination and support action (CSA call)

Call Topic: HORIZON-CL5-2021-D3-02-03 Market Uptake Measures of renewable energy systems

Granting Authority: European Climate, Infrastructure and Environment Executive Agency (CINEA)

Duration: 36 months

Budget: € 1.999.711 (100% funding)

Project Start Date: 01/10/2022

Project End Date: 30/09/2025

Project URL: www.deriskproject.eu

Social media accounts



deriskproject



DERISKProject



DERISK Project



DE-RISK Project



The Challenge

- Europe's energy transition set a binding target for Renewable Energy Sources (RES) of 32% by 2030.
- Amendment under revision in the "Fit-to-55%" EU Package aims at increasing the target to 40%.
- Studies forecast that 60% of installed RES will be wind (40%) and solar (20%).
- Wind and Solar are Variable Renewable Energy (VRE) that are not dispatchable due to their fluctuating nature.
- 60% of wind and solar are expected to be installed at the distribution grid level posing high pressure and need for balancing systems for DSOs.



Therefore, EDSO-E, IEA and the EU, recognize the need of increasing flexibility at DSO level to safely, reliably and affordably achieve 2030 EU RES targets.

The LFM Opportunity

- LFM provides an opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage in response to time-based rates or other forms of financial incentives. DR programs are currently being used by some electric system planners and operators, using mainly the flexibility provided by large industrial facilities connected to the high-voltage grid, as resource options for balancing supply and demand.
- Therefore, the new challenge is **to unlock the very high potential of the local flexibility markets in the distribution grid where the main sources of flexibility are residential and tertiary buildings, representing 70% of the total DR potential.**

DE-RISK Consortium



WEglobal (Türkiye) (WG) (Coordinator): *Coordinator, regulatory analyst, user engagement, communication and dissemination*



QUE TECHNOLOGIES KEFALAIOUCHIKI ETAIREIA (Greece) (QUE): *Technology provider and leader of implementation*



TROYA GENC CEVRE DERNEGI (Türkiye) (TRO): *Case study leader, provider of local energy community perspective*



ULUDAĞ ELEKTRİK DAĞITIM ANONİM ŞİRKETİ (Türkiye) (UE): *Case study leader, provider of DSO business perspective*



NATIONAL UNIVERSITY OF IRELAND GALWAY (Ireland) (NUI): *Case study leader, support digital twins development*



UNIVERSIDADE NOVA DE LISBOA (Portugal) (UNL): *Leader of the customer behavior analysis and change journey*



MY ENERGIA ONER SL (Spain) (MIW): *Case study leader, provider of utility business perspective*



R2M SOLUTION SPAIN SL (Spain) (R2M): *Leader of the business model and exploitation. ESCO business perspective, solution exploiter*



SOFIA ENERGY AGENCY ASSOCIATION (Bulgaria) (SEA): *Leader of the regulatory analysis and roadmap development*



ECROWD INVEST PLATAFORMA DE FINANCIACION PARTICIPATIVA SL (Spain) (EC): *Financial schemes analyst and leader of the crowdfunding campaign*



DE-RISK

DE-RISK Scope



WP 1: Project Management and Coordination (*Lead Beneficiary: WG*)



WP 2: Consumer Journey in the Local Flexibility Market (*Lead Beneficiary: UNL*)



WP 3: Regulatory, Policy, Financial state of the art analysis (*Lead Beneficiary: SEA*)



WP 4: Case study preparation, implementation and validation (*Lead Beneficiary: QUE*)



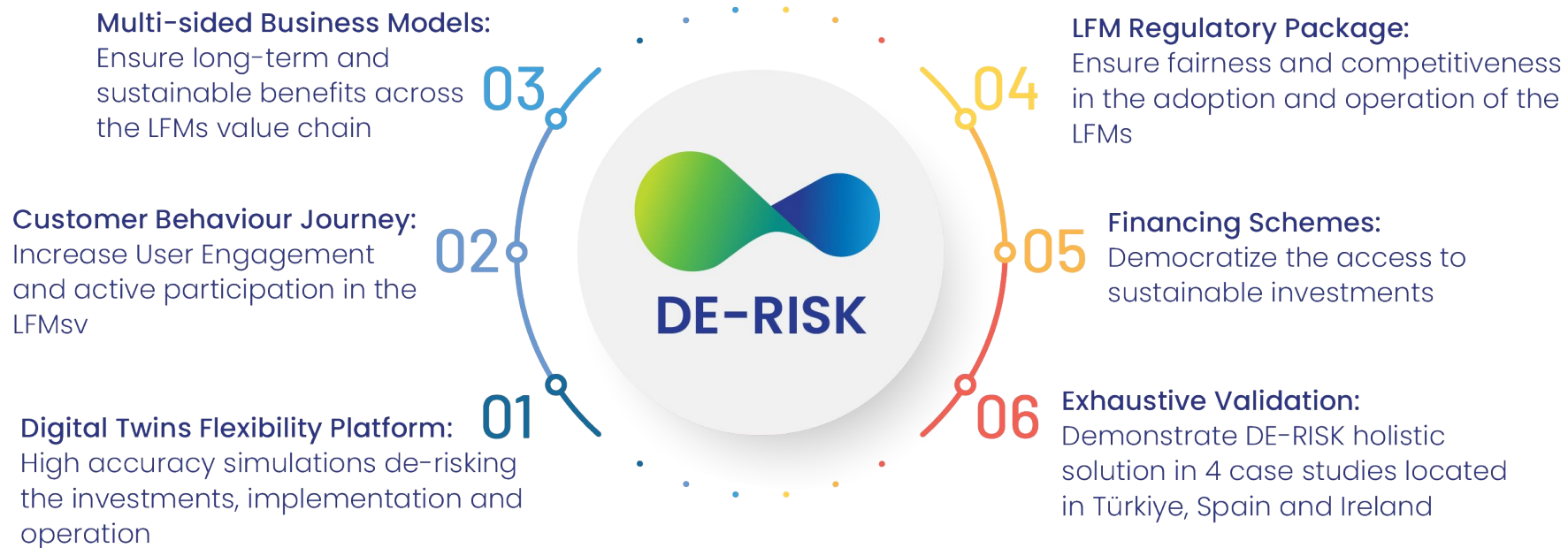
WP 5: Local Flexibility business models, exploitation and replication (*Lead Beneficiary: R2M*)



WP 6: Wide and high impact Communication, Dissemination and Market engagement (*Lead Beneficiary: WG*)

DE-RISK Elements & Objectives

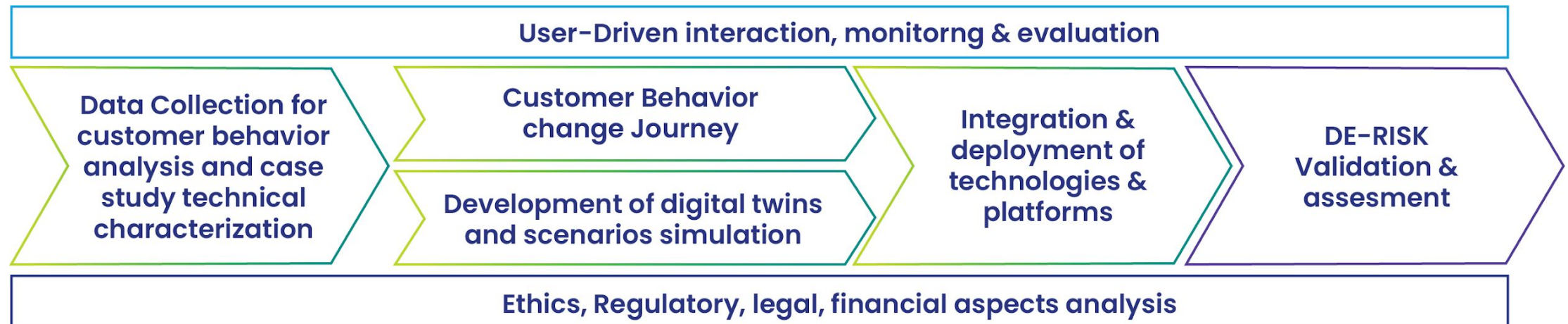
DE-RISK aims at supporting the market uptake of renewable energy systems by fostering the adoption of LFMs and unlocking up to 100GW of flexibility in 2030 which will allow a safe and reliable integration of RES in the grid through its 6 main elements:



DE-RISK METHODOLOGY

DE-RISK methodology is flexible, robust, scalable and ethically compliant. DE-RISK follows a fivefold methodology:

- user-driven;
- business-driven;
- regulatory-driven;
- technology-driven; and
- ethics-driven.



DE-RISK Case Studies

TURKISH CASE STUDY GENERAL INFORMATION

Project pilot name	Canakkale, Turkey
Location	Kepez, Kucukkuyu
Buildings	Condominium
Number of buildings involved in the project demo	15-20 dwellings
Designated partner(s)	TROYA & UEDAS



SPANISH CASE STUDY GENERAL INFORMATION

Project pilot name	Murcia, Spain
Location	Joven Futura, Espinardo
Local Energy Community Buildings	Joven Futura neighbourhood
Number of buildings involved in the project demo	15 residential apartments, distributed in 4 buildings
Designated partner(s)	MIWenergia



IRISH CASE STUDY GENERAL INFORMATION

Project pilot name	National University of Ireland Galway
Location	Galway, Ireland
Local Energy Community Buildings	North Campus Buildings – North Campus District Scheme
Number of buildings involved in the project demo	4
Designated partner(s)	NUIG



NEW SPANISH CASE STUDY GENERAL INFORMATION (replacement case study instead of French case study)

Project pilot name	La Balma (cooperative housing)
Location	Barcelona, Spain
Local Energy Community Buildings	Multi Apartment building
Number of buildings involved in the project demo	1 building, 29 citizens involved
Designated partner(s)	R2M



DE-RISK

DE-RISK Results



- DE-RISK holistic solution to facilitate the adoption of LFM's demonstrated 4 highly replicable case studies from different regions of EU as per geographical, climatic and regulatory conditions.
- +50% customer participation increase compared to the initial situation in each case study.
- +25% variable renewable energy systems hosting capacity through 100 GW of flexibility unlocked.
- All actors in the LFM's value chain get a multisided business model.
- One crowdfunding campaign performed during the project and one set up for after the project completion.
- +10 EU countries get a regulatory analysis and recommendation roadmap for LFM approach.



Ecrowd in the DE-RISK project

WHO?

Ecrowd is a ESMA licensed European crowdfunding service provider (ECSP). Established in Barcelona in 2013, its platform is mainly focused to crowdlending campaigns for positive impact projects and sustainable economic activities.

Through Ecrowd's platform, private organizations (companies, communities, schools, foundations...) request loans not to a bank but to a pool of thousands of individual investors that support their positive impact project or activity, environmental or social.

The function of Ecrowd is to communicate with the project owner, analyze its viability, market the project in the platform and manage loan installments. This way, Ecrowd has financed so far more than €9m in more than 180 collective loans for positive impact investments.

Ecrowd is also an active participant in H2020 projects such EENVEST or DE-RISK with its know-how in collective financing activities.



Ecrowd has two main roles in DE-RISK:

- Describe the current state of the art, available finance models, new financing trends, and specially the need for new financing instruments, and its fitting for LFM investments and related energy communities involved.
- Design and launch a crowdlending campaign for funding hardware for the DE-RISK Spanish pilot in Murcia to unleash and demonstrate the full potential of collective financing for LFMs and energy communities.





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THANK YOU!

