Energy community management kit

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Pillar Energy – Spoke 7 – WP 1 GRES

SAMOTHRACE 2nd Year:
Experimental Prototypes Demo Showcase

SAMOTHRACE PROJECT ECS00000022

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Context and Scope

Implement an **energy management system** specifically for energy communities (EC).

An EC consists of an association of citizens, local public administrations, and small/medium enterprises who are part of an energy community as **members** or **community managers.**

The EC **market** is rapidly growing, especially in Europe. In Italy, there were **168 active energy communities***

The solution in brief
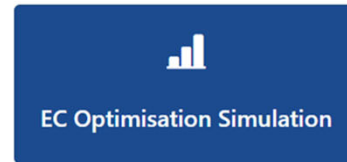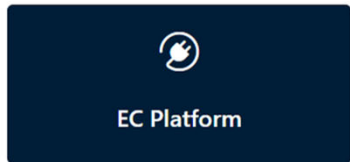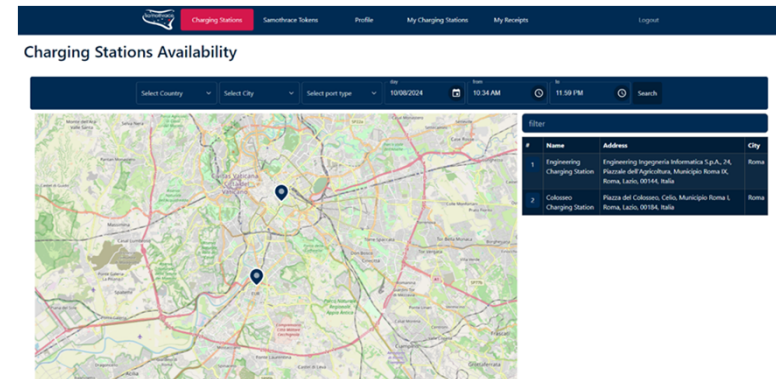

- Simulations of different EC configurations to maximize GSE incentives

- Dynamic booking of electric vehicle charging stations.

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Development Plan

The EC Management Kit is based on **existing artifacts** and **available technologies**

Key progress milestones:

- **ML7**: State of the Art; Requirements Analysis & Definition; Identification of main functionalities.

- **ML9**: ML algorithms selection; System development; Overall software architecture.

- **ML11**: Interfaces definition; Executive design of the software solution.

- **ML13**: Solution development and deployment in a test environment.
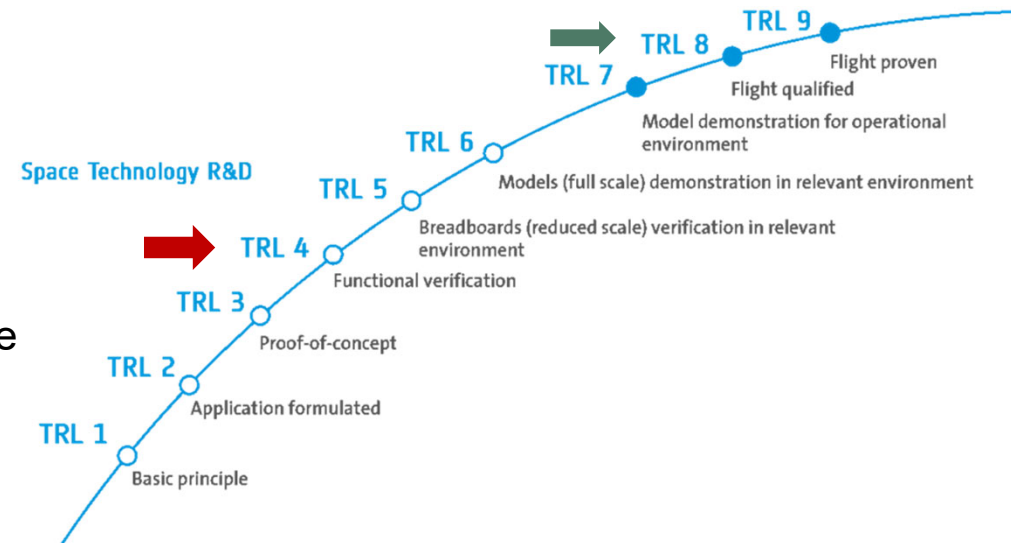
Space Technology R&D

TRL 9 — Flight proven
TRL 8 — Flight qualified
TRL 7 — Model demonstration for operational environment
TRL 6 — Models (full scale) demonstration in relevant environment
TRL 5 — Breadboards (reduced scale) verification in relevant environment
TRL 4 — Functional verification
TRL 3 — Proof-of-concept
TRL 2 — Application formulated
TRL 1 — Basic principle

Next Step

- **ML15:** Final release of the technologies, including the integration of the optimizer with the EC platform to enhance its performance.
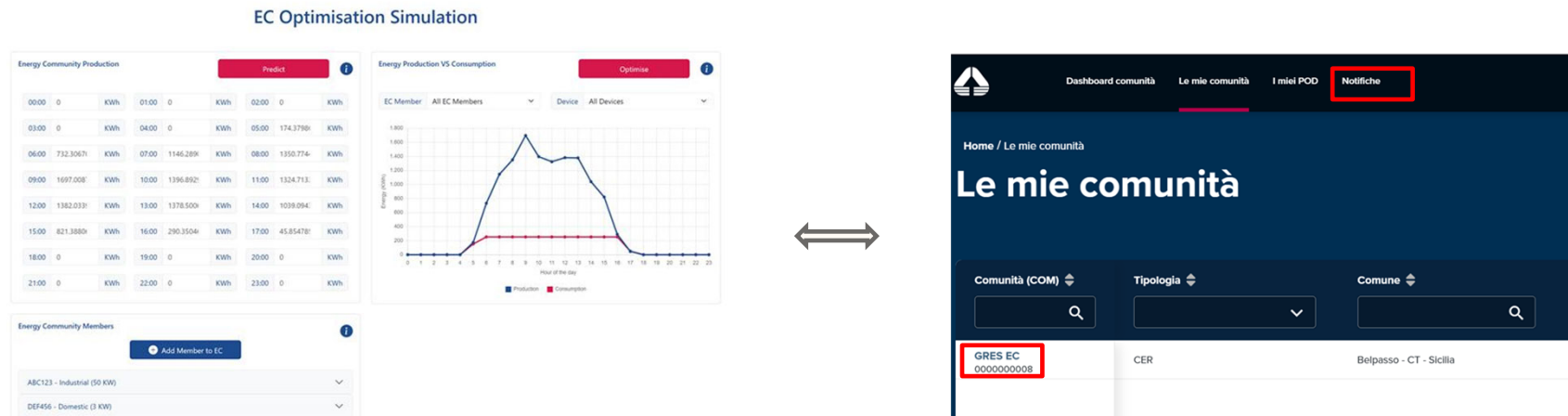
- The model will anticipate daily generation patterns and adjust the devices scheduling accordingly.

- The members will receive a notification about the consumption scheduling

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THANK YOU

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