Smart mountain of tomorrow

OCOVA 2026

3 February 2026

Les Orres

CLEAN, ACCESSIBLE AND SECURE ENERGY FOR ALL

Introducing the CRETE VALLEY project

CRETE VALLEY

Co-funded by the European Union under grant agreement no. 101136139. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

WHAT IS CRETE VALLEY?

Accelerating the energy transition

CRETE VALLEY is a project that will turn Crete into a **sustainable**, **decentralised energy system**, enabling the island to meet its energy needs through renewable sources

- **41** partners
- **4** Community Energy Labs (CELs)
- **6** Renewable Energy Sources
- **320+** Facilities and households benefiting
- **5Y** duration

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OUR VISION FOR A SUSTAINABLE FUTURE

Establish Crete as a pioneering **Renewable Energy Valley**, combining ICT technology, interoperable digital solutions, social innovation processes and economically viable business models.

Composed of four **Community Energy Labs (CELs)** across Crete, the REV-Lab will contribute to the **European green transition** and foster **energy democracy**.

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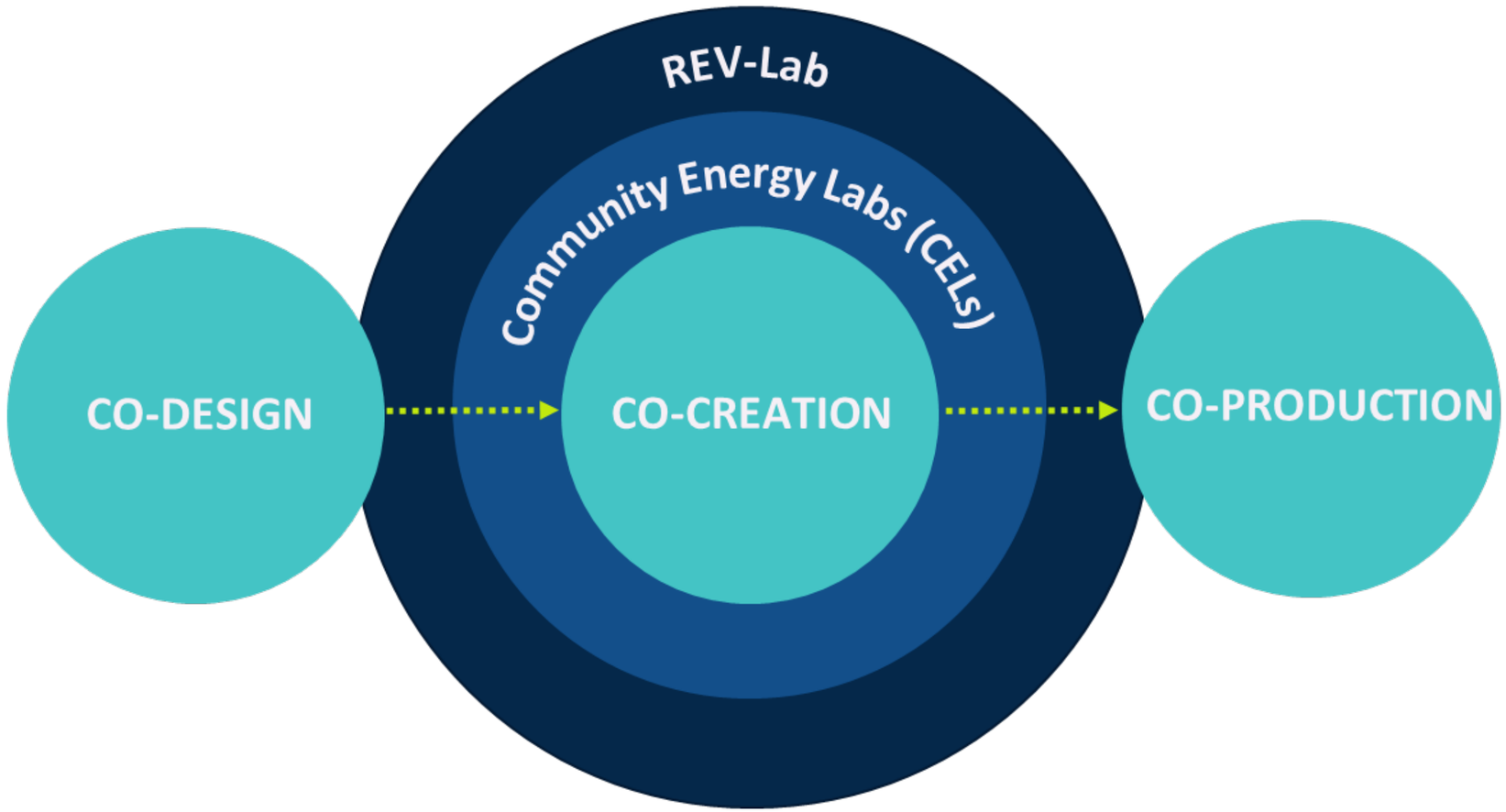
SOCIAL ENGAGEMENT



Mapping resources and identifying needs and opportunities

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CRETE REV-LAB FRAMEWORK

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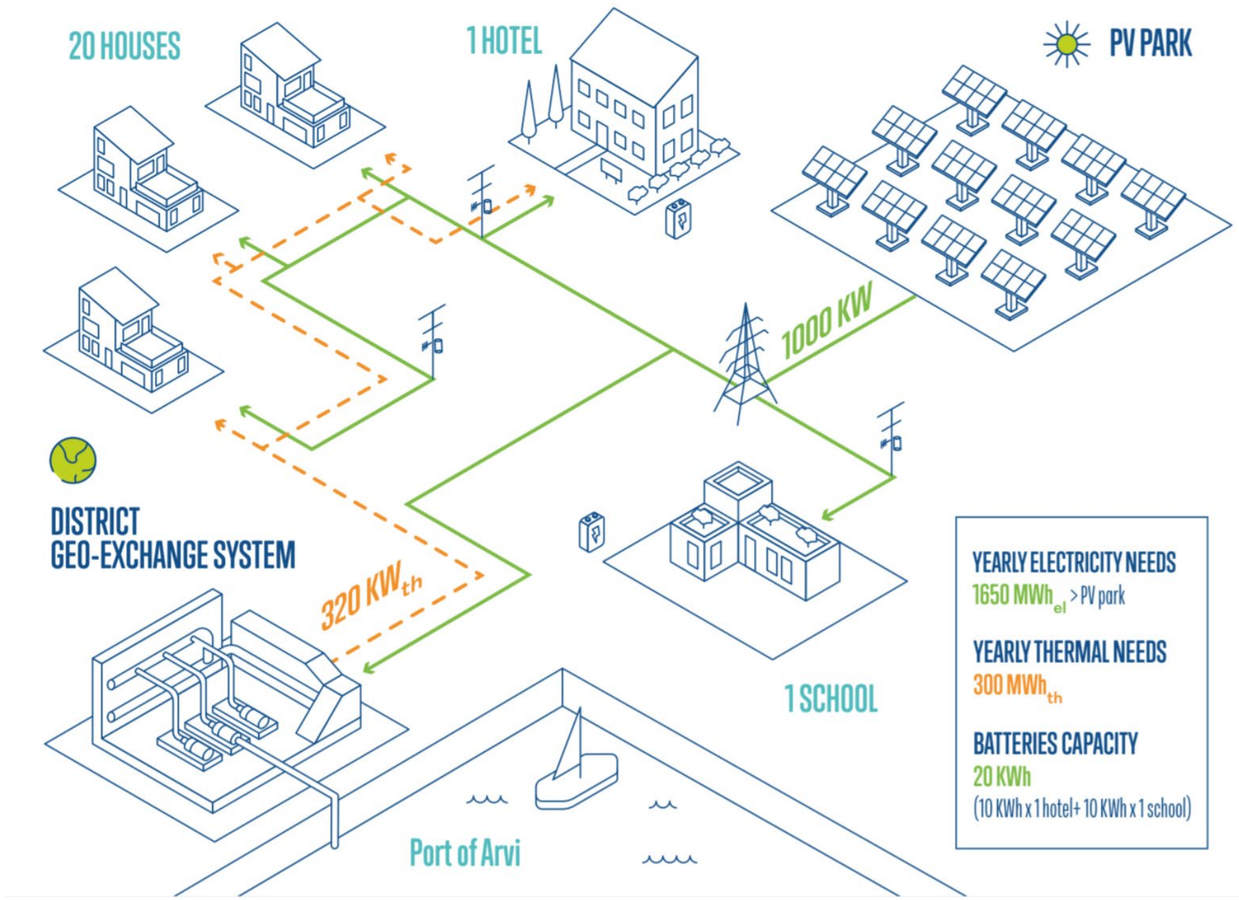
CEL 1

Arvi

- 20m altitude, coastal village
- Warm climate, indoor space cooling for 9 months
- 500 permanent residents



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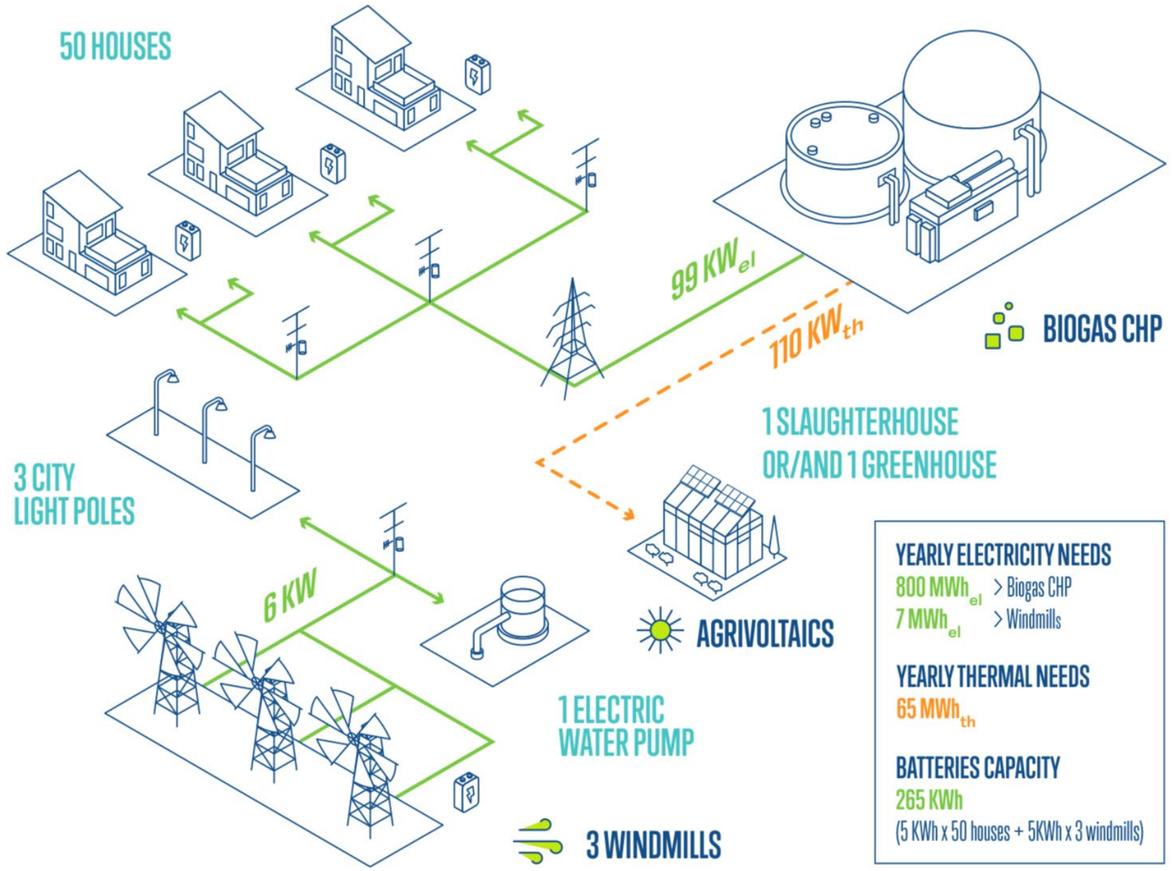
CEL 2

Lasithi Plateau

- 900m altitude
- Cold climate, indoor space heating for 9 months
- 2400 permanent residents



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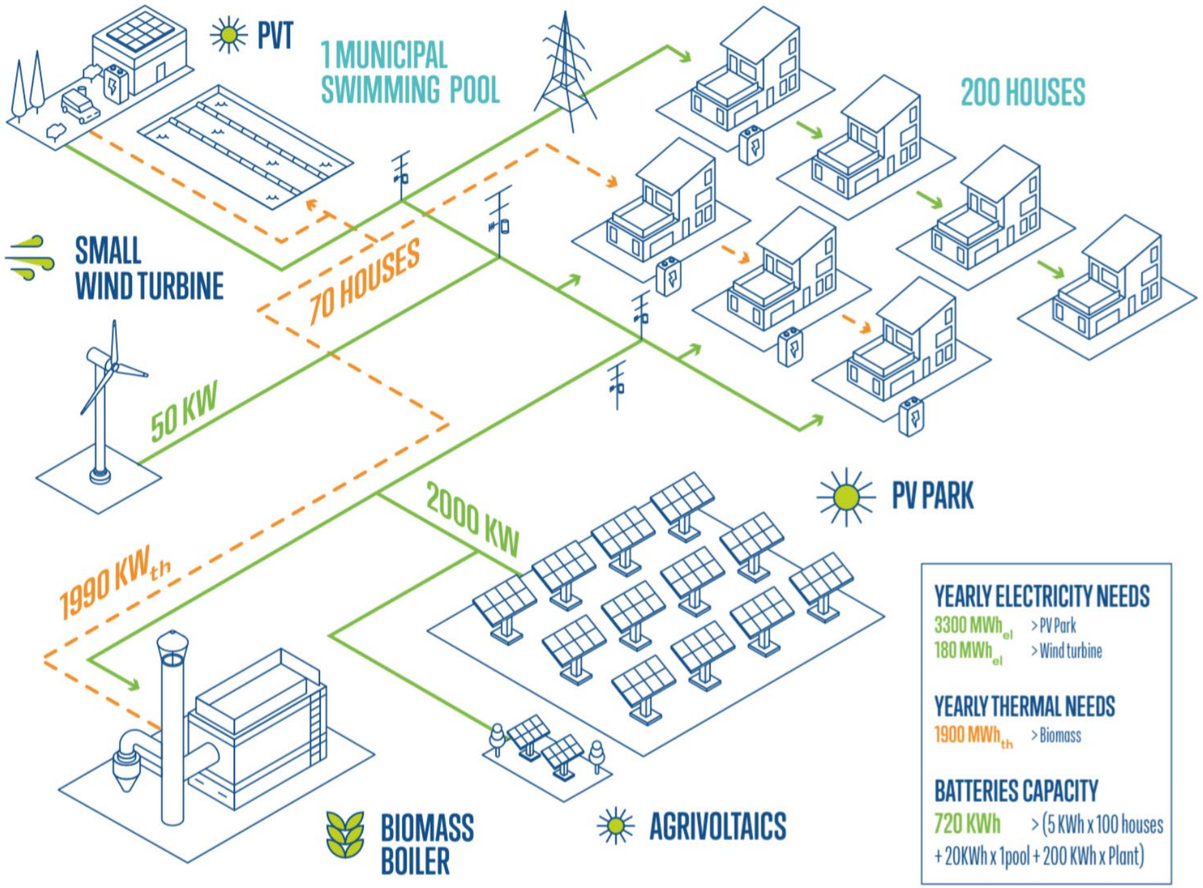
CEL 3

Arkalochori

- 300m altitude, central Crete
- Indoor heating during winter
- 5000 permanent residents



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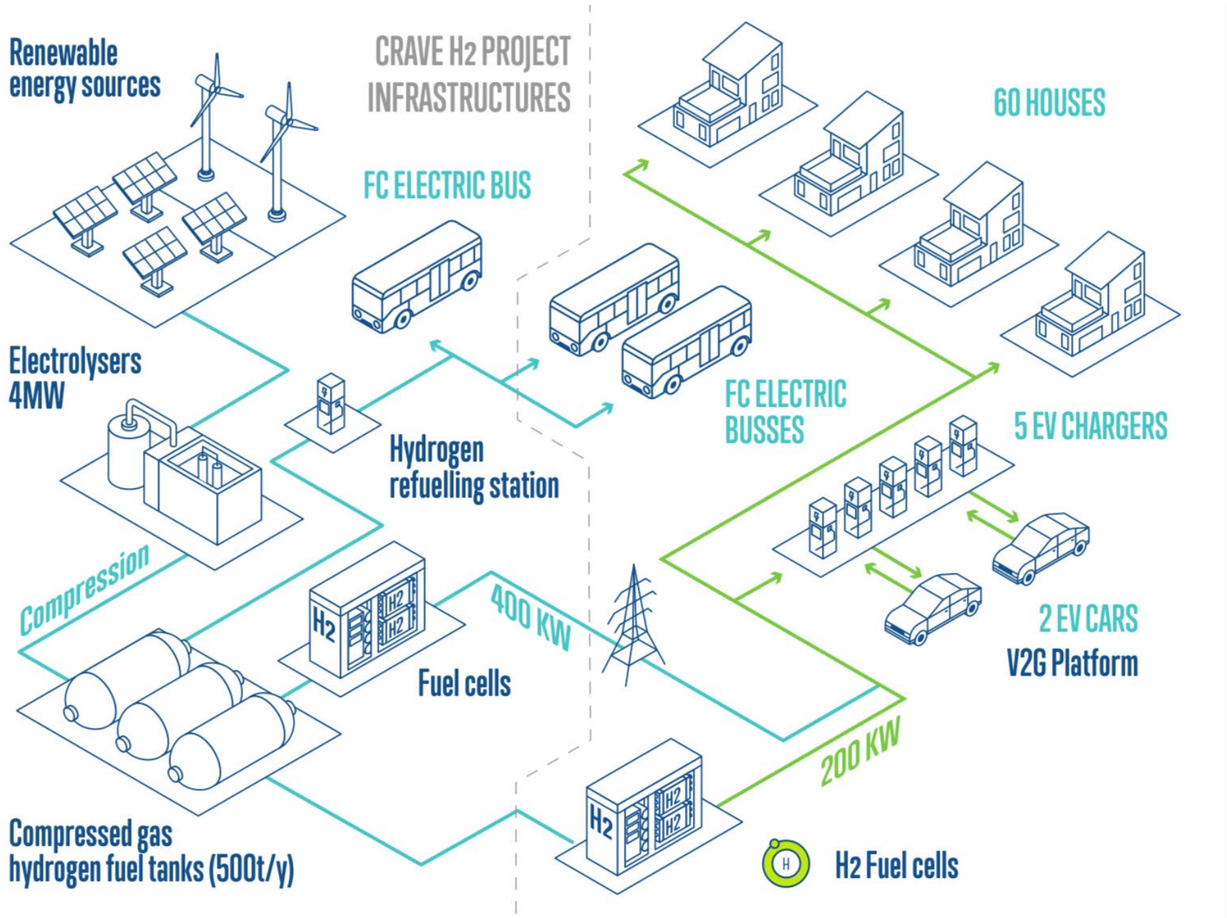
CEL 4

Mires

- 20m altitude, coastal village
- Warm climate, indoor space cooling for 9 months
- 500 permanent residents



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CRETE VALLEY DIGITAL TWIN

Who are the end-users?

End Users	Functionalities
Transmission System Operators (TSOs)	Network monitoring, forecasting grid behaviour
Distribution System Operators (DSOs)	Network monitoring, optimisation of distribution efficiency
Community Managers	Production and load analytics, flexibility potential, maintainance scheduling

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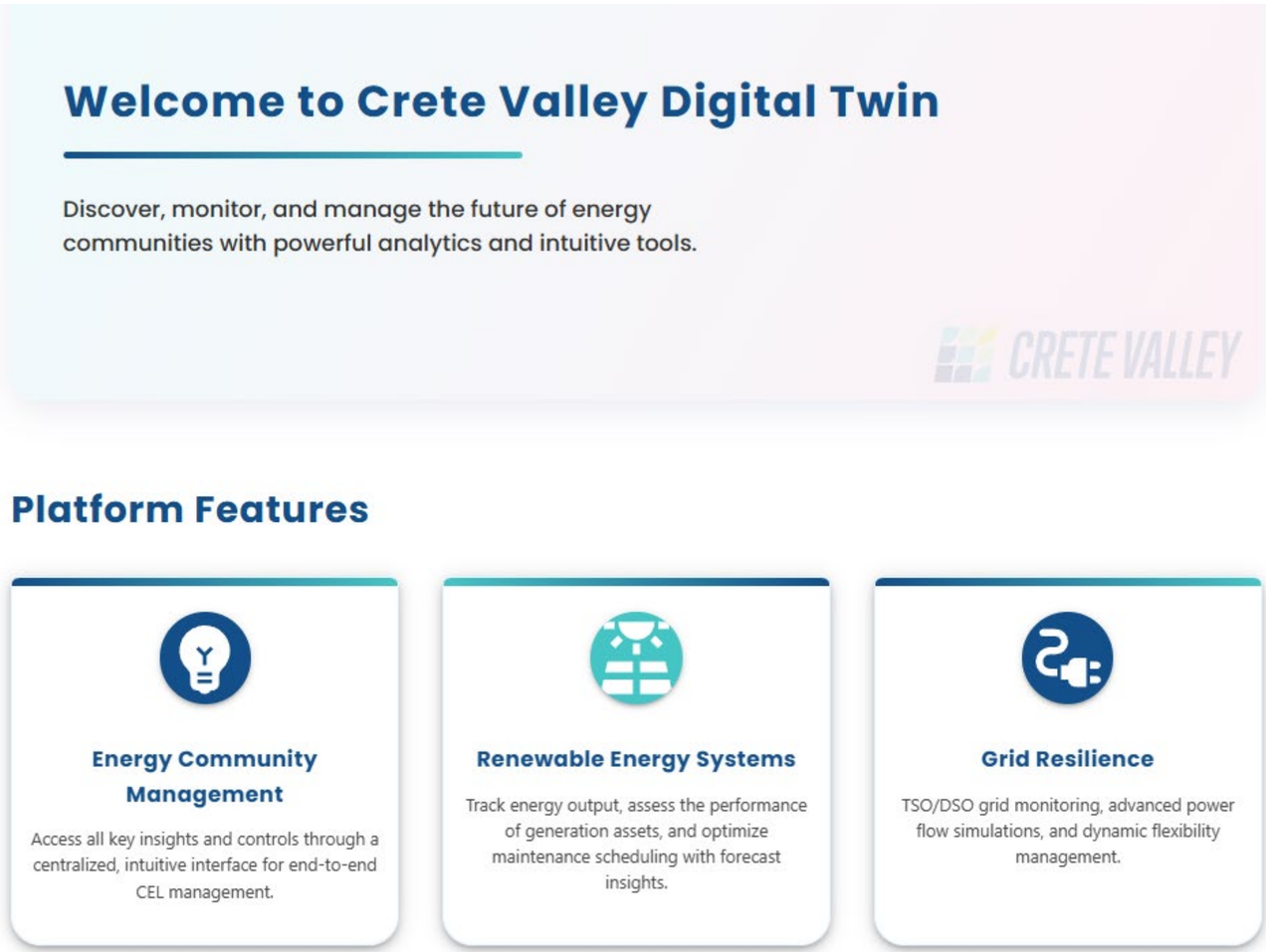
CRETE VALLEY DIGITAL TWIN

Main Features



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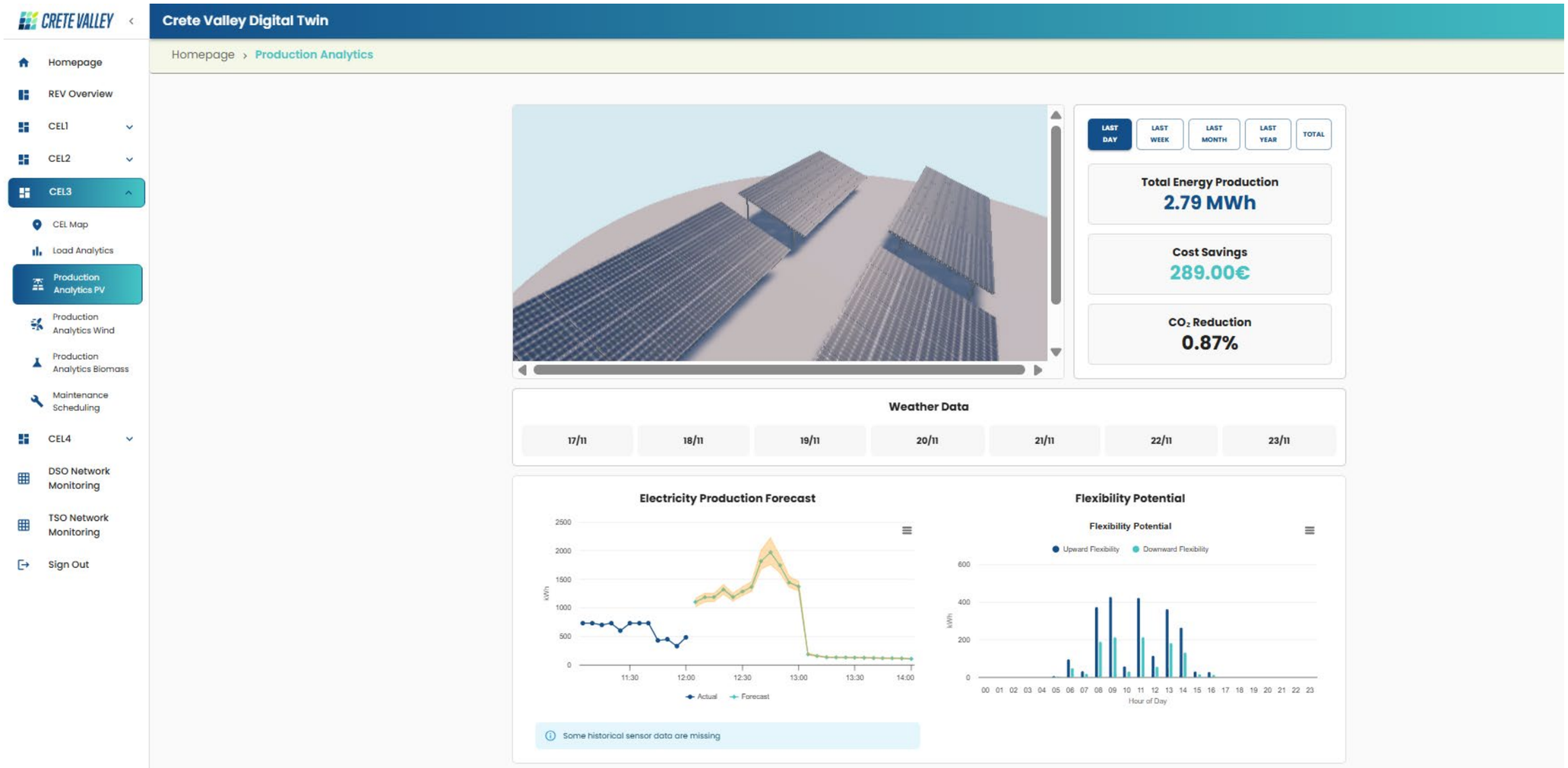
Production Analytics



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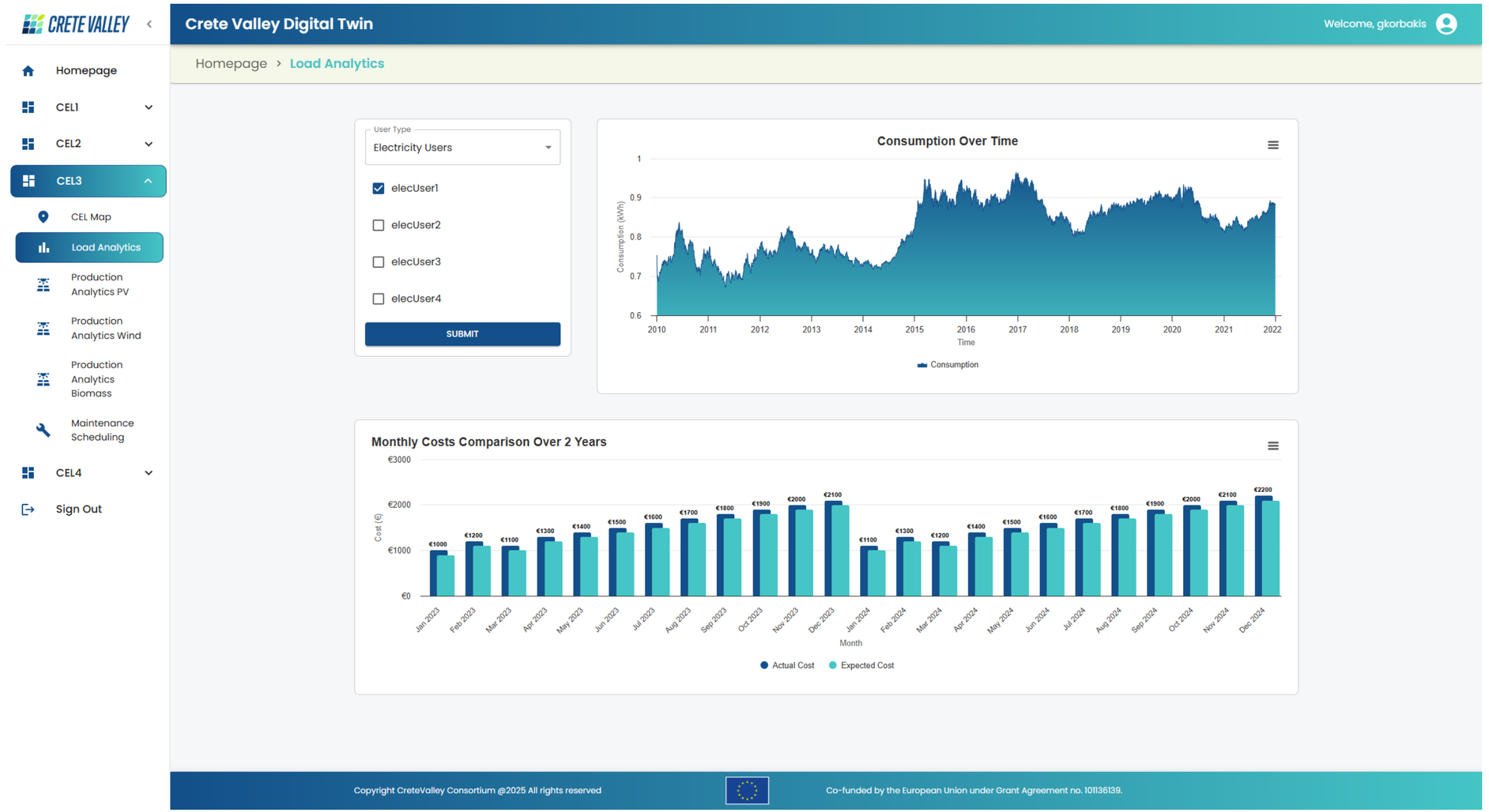
Load Analytics



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MERCI POUR VOTRE ATTENTION !
THANK YOU FOR YOUR ATTENTION!

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