

## REFORMERS PRESS RELEASE – MARCH 2024

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### The research project “REFORMERS: Regional Ecosystems FOR Multiple-Energy Resilient Systems” launches its activities in November 2023

#### What are “Renewable Energy Valleys” and how can they impact our future?

Thanks to the joint effort of 28 partners from 10 European countries, a large testbed facility in Boekelermeer business park will prove how “Renewable Energy Valleys” can represent the optimal energy system for small to medium industrial sites close to residential sites.

In Alkmaar's "Renewable Energy Valley," a diverse mix of more than 300 businesses and 3,000 households is currently connected to a shared energy grid. This supply system not only enables the community to produce and use their own renewable energy, but also to store and share it, to mitigate potential energy imbalances and cover the energy demand. This is made possible by advanced and smart energy management, focused on the diversification and valorization of sustainable energy sources.

The Horizon Europe funded project “REFORMERS – Renewable Energy Valleys” is an Innovation Action, co-funded by the Swiss Secretariat for Education, Research and Innovation (SERI), started in 2023 and will be running for the next five years, coordinated by Professor Thierry Coosemans from the Vrije Universiteit Brussel and NEC - New Energy Coalition, the Flagship Valley Coordinator. The research team will combine and integrate existing technologies for the generation, storage, and distribution of renewable energy, such as renewable electricity and green hydrogen, with the support of novel algorithms and a digital twin.

On November 22<sup>nd</sup>, 2023, Alkmaar's deputy mayor Christian C. Schouten, welcomed the research team in a rather uncommon setting: the meeting started at the AZ Alkmaar Stadion, followed by a Flagship Valley tour. Alkmaar municipality has already been involved in research projects such as [POCYTIF](#), which engaged local businesses, institutions, and citizens in energy efficiency interventions. During the walking tour representatives from local businesses showcased existing innovations to prevent energy losses and lower energy costs, such as heat recovery systems and smart energy management (EMS). The community is now ready to move forward and become a large-scale pilot for REFORMERS.

The REFORMERS' Flagship Valley in Alkmaar is characterised by the presence of existing natural gas infrastructure, a bio-energy plant, and the presence of the Energy Innovation Park Alkmaar to foster renewable energy innovations.

The REFORMERS' project goal is to diversify renewable energy supplies and maximise efficiency. By ramping up green energy production through the combination of consolidated technological solutions with the most innovative energy management systems, the Energy Valley shall be able to cover more than 100% of its energy demand through local renewable energy production and reach 75% of self-consumption through demand side management



by the end of the project. Finally, this should lead to lower energy costs for end customers, compared to current and forecasted market prices.

The REFORMERS' research team will develop, test, and exploit a toolbox and a digital twin to identify the best solutions and constantly improve towards self-sustaining Energy Valleys. The ambition is to completely replace fossil fuel use from residential customers by delivering heat produced from bio-waste and heat recovery. Together with green-hydrogen, wind, solar and bio-waste energy production, the project will help hit Alkmaar's 100% renewable energy target by 2050. The developments within the Dutch Flagship Valley will be meticulously followed by six satellite valleys spread around Europe. These valleys will take advantage of the lessons learned and replicate successful strategies to create their own Renewable Energy Valley and contribute altogether to the #REPowerEU goals.

**Project Coordinator – Prof. Thierry Coosemans ([Vrije Universiteit Brussel – Electromobility Research Centre](#))**

*By endeavoring to develop self-sustaining carbon carbon-neutral energy valleys the REFORMERS project will provide an essential cornerstone for the realization of RepowerEU targets. Not only will the project foster Europe's independence on fossil fuel imports, but moreover it will offer solutions and tools that strongly support the targets on the reduction of greenhouse gas emissions projected in the EU's Green Deal. The VUB is proud to be the coordinator of such an ambitious project involving a strong and motivated consortium of frontrunners in so much needed energy transition.*

**Flagship Valley Coordinator - Joep Sanderink ([New Energy Coalition](#))**

*As a project manager at New Energy Coalition, I have had the opportunity to get acquainted with several European funded Positive Energy Districts and Hydrogen Valley projects. What makes REFORMERS special is its focus on the integration and optimization of multiple renewable energy carriers over the entire chain of (renewable) energy generation, storage, conversion, distribution and end-usage. New Energy Coalition is proud and honored to contribute to the development, realization and replication of Europe's first Renewable Energy Valleys.*



Figure 1 - The research team in Alkmaar's Flagship Valley at INVESTA's premises – November 2023



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Figure 2 - A drone capture of Alkmaar's Flagship Valley including industrial and residential areas

## USEFUL MATERIALS, LINKS AND CONTACTS

### Hashtags

#EnergyValleys #EnergyHub #MultiEnergySystem #GreenHydrogen #SelfSufficient  
 #PioneeringTransition

### Links

Visit the project website at [www.reformers-energyvalleys.eu](http://www.reformers-energyvalleys.eu) and follow our social media page on LinkedIn for the latest updates, or get in contact at [info@reformers-energyvalleys.eu](mailto:info@reformers-energyvalleys.eu)

### Link to image folders

#	Short name	Link to high quality version of the image	Credits/ Author
#1	Research team in Alkmaar's Flagship Valley	<a href="https://drive.google.com/file/d/1HtzO8ZEVxQ4oNen-6wya-hl46Oshrk/view?usp=drive_link">https://drive.google.com/file/d/1HtzO8ZEVxQ4oNen-6wya-hl46Oshrk/view?usp=drive_link</a>	<b>Copyright:</b> REFORMERS 2024 – <b>Author:</b> Rebecca Hueting
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