

# Finland Powers EU Transition With Green Energy

*Case: Oulu Region, Northern Solutions*



**Finland carbon neutral 2035**  
**Potential: 10-15% of EU's needs**  
**Oulu Region #1 in EU**

[See the video](#)

# **95%** *of Finland's electricity is fossil-free*

- Wind power makes up 20% today and Finland plan to double it by 2030.
- Solar power is growing fast-2 terawatt-hours per year more by 2025.
- Finland could supply 10-15% of Europe's clean hydrogen in the future.





# Hydrogen projects in Finland\*

First projects to be commissioned during year 2025. Most of the produced hydrogen will be refined into E-fuels or other products and utilised in industry.

~60

hydrogen projects planned or already under construction in Finland

>13 000 MW

power

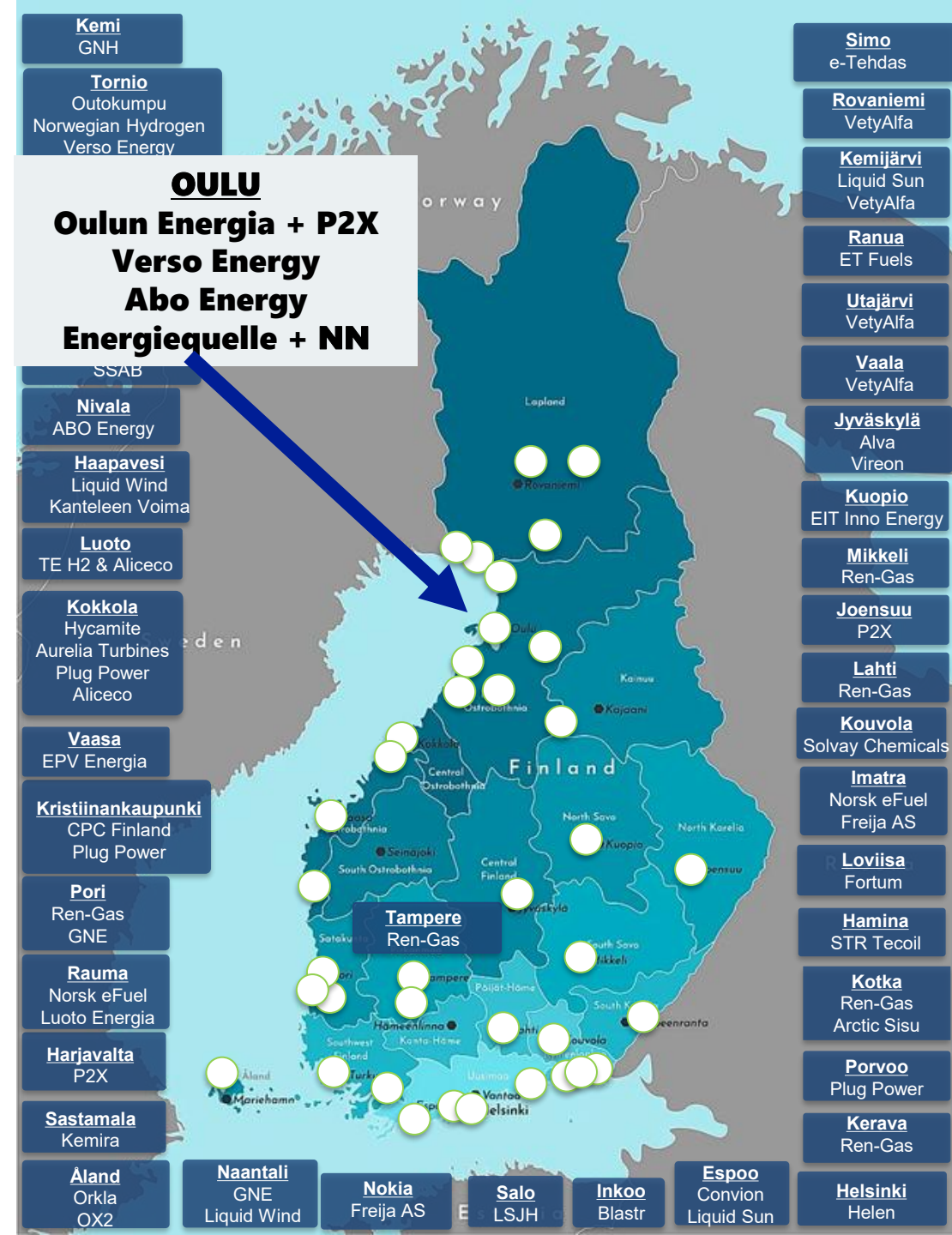
~30 B€

investments

>1 500 000 t/a

annual H2 production of planned projects

**The Nordic Hydrogen Route** is an initiative to build a cross-border hydrogen infrastructure in the Bothnian Bay region and an open hydrogen market by 2030. The project has been approved by the European Parliament and the Council for PCI status. Construction will begin 2026.



# The Most Extensive Hydrogen Hub

## Plug in Oulu:

5+ GW of electrolyzer capacity and  
The Nordic Hydrogen Route

SEA  
LAPLAND

### NUOTTASAARI

Access to  
biogenic CO<sub>2</sub>

### OULU NORTH, 10 km<sup>2</sup>

1500 MW by  
Energiequelle,  
ABO Energy  
P2X Solutions

### OULU CITY

100 MW by Oulun  
Energia & P2X  
Solutions.  
Access to  
biogenic CO<sub>2</sub>

### OULU EAST

New industry  
site

### MUHOS

### UTA- JÄRVI

### VAALA

### OULU SOUTH HYDROGEN VALLEY

### PORT OF OULU

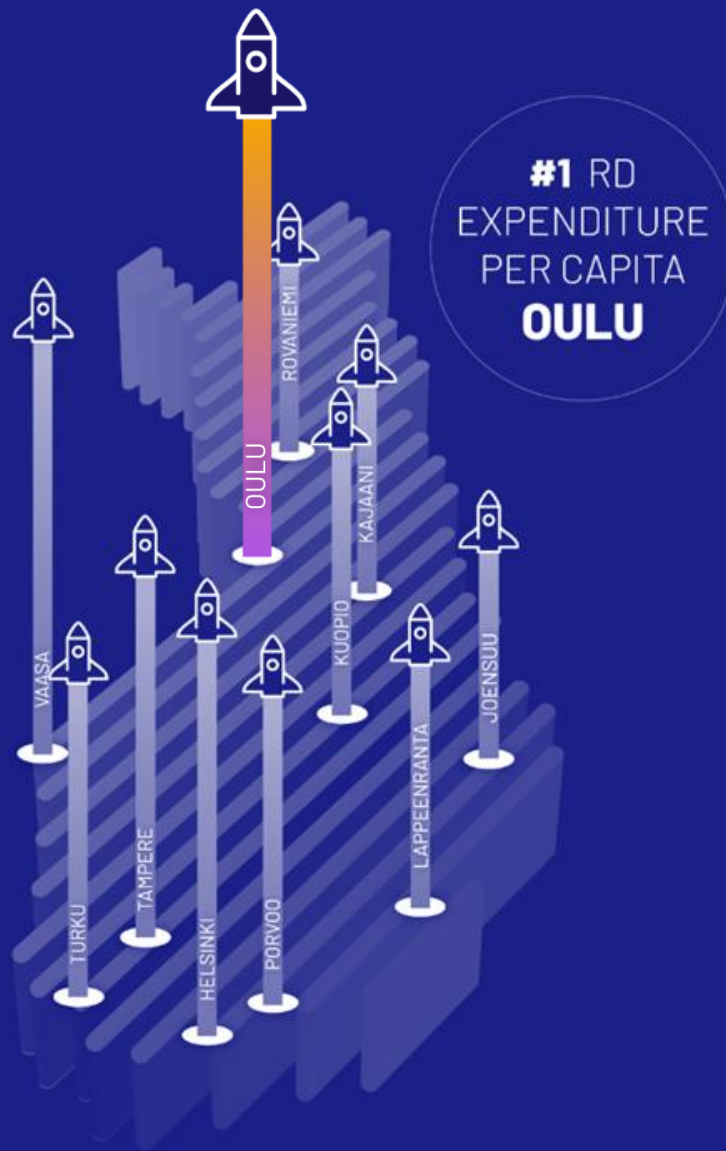
Oritkari: 350 MW by  
Verso Energy  
Vihreäsaari: 250  
MW NN (Nov. 2025)

## Why Oulu Region?



- ✓ **Three new hydrogen plants** to Pyryväinen  
(April 2025)
- ✓ **Oulun Energia** and **P2X Solutions** going to build  
100MW hydrogen plant  
in Laanila  
(February 2024)
- ✓ **French Verso Energy**  
plans a hydrogen plant  
in Port of Oulu  
(November 2024)

# RDI INVESTMENTS PER CAPITA IN FINLAND 2023



<b>OULU*</b>	<b>3515</b>
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Vaasa	2879
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Helsinki	2488
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Tampere	2351
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Finland in average	1506
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Euros / capita. Source: Statistics Finland

**Share of the investments:**  
**75% private companies**  
**20% universities**  
**5% public sector**



# Hycamite

We produce low-carbon hydrogen and high-quality carbon products by splitting methane

## What sets Hycamite apart?

- Compared to steam methane reforming (SMR), we produce no CO<sub>2</sub> emissions.
- A highly energy-efficient process, utilizing only 13% of the energy needed in electrolysis.
- Carbon is captured in solid form and can be used as high-quality carbon products such as battery-grade graphite.

## Benefit 1: Price

Competitive pricing due to two revenue streams, hydrogen and solid carbon. The end user doesn't have to pay a premium on low-carbon hydrogen.

## Benefit 2: Life cycle emissions

Our ultra-low carbon hydrogen typically has the smallest carbon footprint, even with natural gas as feedstock, compared to other technologies.

## Benefit 3: Products

Customized carbon products and production volumes according to the customer's needs. We produce a wide range of carbon products for various applications.

Batteries



Concrete



Steel



Polymers

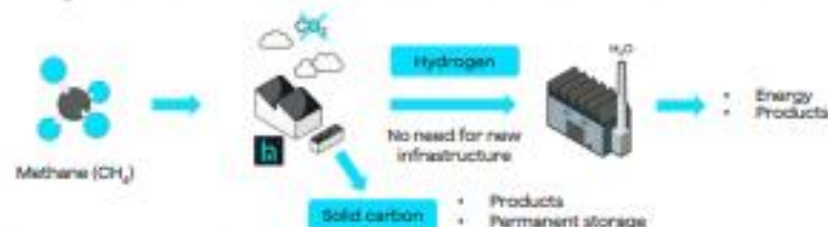


Supercapacitors



## Our solution

A plug-and-play solution to decarbonize industries that use natural gas, utilizing existing infrastructure and can benefit from the waste heat of the customer.



## Entering industrial scale

We are now commissioning our Customer Sample Facility (CSF), which is the largest methane-splitting plant in Europe. Once fully operational, the plant will produce 2 000 tons of low-carbon hydrogen and 6 000 tons of high-value carbon annually. The plant's annual decarbonization capacity is up to 18 000 tons of CO<sub>2</sub>.



**2 kt**

CSF's annual hydrogen production capacity

**6 kt**

CSF's annual carbon production capacity

**70+**

Employees in the organization

**20+**

Years of research behind our technology

Contact us:



Hycamite.com



Hycamite

# Hydrogen from the Sun. Anywhere on Earth.

*Directly, locally, and emission-free.*



*Call it the Sun Age.*

## ► Our Technology:

Our photocatalysis-based technology enables off-grid and self-sustaining hydrogen production, providing renewable fuel wherever the sun shines — for industries, societies, and developing regions.

*Operational since 2025, early-stage development underway.*



### Sunlight-powered

Energy from renewable resources: water and sunlight.



### Grid-independent

Operates in off-grid locations.



### Direct fuel production

Clean H<sub>2</sub> without electricity conversion.



### Research-driven

Spin-off from the University of Oulu, grounded in Solar H<sub>2</sub> research.

Let's connect to shape the Sun Age together:

Veera Tapionkaski, CEO · [veera@zun-h.com](mailto:veera@zun-h.com)

# German Companies Already Trust Oulu



**BOSCH**

 **energiequelle**  
TULEVAISUUDEN ENERGIAA.

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 **ABO  
ENERGY**

**Who's the next?**



Nordic Hydrogen Week is a three-day event featuring science, research, site visits, networking and business – bringing the entire hydrogen value chain together!



**B2B Matchmaking & Networking**

**Site Visits & Research Day**

**Exhibition & Business Forum**

**Register & Read more**



[See the video of 2025 edition](#)