

ABC OTTMARSHEIM

ADEME/NEDO Joint Seminar

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HYNAMICS IN A NUTSHELL

As producer and distributor of low-carbon and renewable hydrogen, Hynamics is:

01

- A wholly owned subsidiary of EDF, created in 2019,
- key player in the Hydrogen Plan,
- major contributor to the Group's raison d'être.



02

A company committed to the decarbonation of the two most CO₂ emitting sectors, mobility and industry, in France, Germany and the UK.



03

An industrial player with an integrated offer: producer, investor, operator and maintainer of production assets.



INDUSTRIALISATION OF THE HYDROGEN VALUE CHAIN BY EDF



"ABC OTTMARSHEIM" PROJECT...

FERTILISER INDUSTRY DECARBONIZATION SOLUTION

Hynamics areas of Expertise



Partners



LAT Nitrogen and Hynamics are developing the ABC Ottmarsheim project:

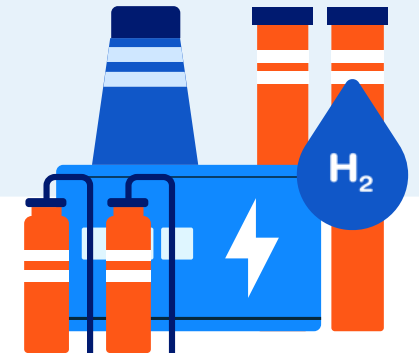
France's first low-carbon ammonia and fertiliser production project

Key figures

- **50 MW** of electrolysis
- **36,000 tonnes of low-carbon ammonia** produced per year
- **340 GWh by year** of natural gas reduction
- **15%** of the site's H₂ needs decarbonised
- **>48,000 tonnes** of CO₂ avoided per year.
- **2026**: target for commissioning

Challenges & prospects

- Reducing dependence on fossil natural gas: sovereignty over low-carbon hydrogen.
- Around 10% of the hydrogen produced is offered to additional offtakers in the vicinity.
- The proximity of Germany and Switzerland also offers opportunities for cross-border collaboration



...WELL-ALIGNED WITH NATIONAL & EUROPEAN H₂ STRATEGIES

In the context of the global energy market disruption caused by Russia's invasion of Ukraine, the crisis reveals a **triple dependency of the agricultural sector to the Russian and Ukrainian commodities**:



- ❖ **Natural gas: 39.2%** from Russia (2021)
 - ❖ **Fertilizers: 46.5%** from Russia/Ukraine and Belarus (2022)
 - ❖ **Wheats: 33.6%** from Russia/Ukraine (2021)
- **REPowerEU Action Plan** (05/2022) includes strong support for accelerating H₂ infrastructures **to improve EU sovereignty**.
- By ensuring a **local production**, fertilizers will be made available for EU farmers and **risk of import shortage will be reduced**

The **French strategy for the development of low-carbon hydrogen** (09/2020) is a priority area of investment for France, given :



1. environmental issues
2. economic issues
3. energy sovereignty issues
4. technological independence issues



Agnès Pannier-Runacher 🇫🇷 🇪🇺
@AgnèsRunacher



A Ottmarsheim, dans le Haut-Rhin, l'entreprise Borealis / LAT Nitrogen produit de l'hydrogène pour décarboner son activité, la production d'engrais.

C'est un projet stratégique que nous soutenons avec [@RolandLescure](#).

Bravo à l'ensemble des équipes pour leur engagement.

[Translate post](#)



Mrs. Pannier-Runacher, publication on X, 30/08/2023

Project highly supported by the French government:

"It was important for me to visit the site to see the progress and the implementation of projects already supported by our country as part of the Major Projects of Common European Interest (PIIEC)"... "With 1.5% of French emissions coming from the ammonia sector, this project is strategic for the decarbonization of French industry and will help to reduce the carbon footprint of agricultural production."

Press release (30/08/2023)



...WITH MULTIPLE POSITIVE EFFECTS FOR THE REGION

01

Around **50 kilotonnes of CO₂ per year will be avoided** thanks to the ABC Ottmarsheim Project

02

Circa 100 jobs created (including indirect jobs), while preserving jobs in the fertilizer and agricultural sectors, characterized by a strong network of SMEs and self-employed workers.

03

Reduce dependence on Russian gas and preserve the sovereignty of fertilizer production in France.

04

With an installed **electrolyser capacity of 50 MW**, the ABC OTTMARSHEIM project covers almost 1% of France's target of 6.5 GW by 2030, and offers a significant opportunity for future "gigafactories"

HYNAMICS

Thanks for your attention

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