

Decarbonisation of the Seine-North Europe Canal via H2

The Seine-North Europe Canal (CSNE): a game-changer

- **Length:** 107 km, connecting Compiègne to Aubencheul-au-Bac.
- **Purpose:** link France's waterway network to the European inland system.
- **Impact:** transform freight logistics, boost economic efficiency, and decarbonize transport.

Regional leadership in renewable hydrogen

Hauts-de-France hydrogen roadmap:

1. **Production & infrastructure:** building robust hydrogen ecosystems.
2. **Mobility:** decarbonizing freight and logistics.
3. **Economic growth:** driving innovation and job creation.

Success factors for 2030

Technological readiness:

- Hydrogen fuel cells and storage for maritime use.
- Efficient integration with canal logistics.

Policy support:

- Regulatory frameworks for hydrogen adoption.
- Financial incentives to promote strategic collaboration.

Strategic collaboration:

- Strengthen public-private partnerships.
- Develop replicable models for hydrogen transport across Europe.

Hydrogen: the future of canal electrification

Hydrogen propulsion offers:

- **Clean energy:** zero-emission alternative to diesel.
- **High scalability:** suitable for long-range, heavy freight operations.
- **Energy synergy:** leverages renewable sources (wind, nuclear, biomass).
- **Modular infrastructure:** strategic refueling points integrated with industrial hubs (e.g., Plastic Omnium in Compiègne).

H2ignite: pioneering hydrogen barges by 2030

Pilot study objectives:

- **Infrastructure needs:** plan hydrogen production, storage, and refuelling.
- **Stakeholder engagement:** align industry and policy efforts.
- **Economic analysis:** prove cost-effectiveness versus diesel.
- **Environmental impact:** assess emissions reduction and quality improvements.

Looking ahead

The Seine-North Europe Canal is poised to become a cornerstone of Europe's energy transition, setting the standard for sustainable waterway transport. Together, we can:

- Achieve carbon neutrality.
- Drive economic innovation.
- Build a cleaner, greener future.