



Interreg
Alpine Space



Co-funded by
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H2MA

The evolution of **CLEAN** **HYDROGEN**

Perspectives from
production to use
in mobility and
industry

29th of October 2025
Venezia Heritage Tower
(Marghera, Venice)



Welcome to the H2MA Final Event

Guido Piccoli – Partner ALOT
Event's chariman



Welcome to the H2MA Final Event



Good morning and welcome to the Venezia Heritage Tower for the final event of the Interreg Alpine Space Project H2MA — examining the evolution of clean hydrogen across production, mobility, and industrial applications.

It's a genuine pleasure to convene here alongside partners, institutions, and experts who have dedicated years to transforming hydrogen from a futuristic concept into a tangible pillar of today's energy transition.

Guido Piccoli – CEO & Partner of ALOT
Transport Economics
Senior EU Project developer and manager
Moderator



The Quantum Paradox

Like Schrödinger's cat — simultaneously alive and dead until observed — hydrogen today exists in a state of superposition.



Promise vs Reality

Heralded as the key to decarbonization, yet constantly questioned: Does it truly work? Is it affordable? Is it ready for deployment?



The Uncertainty Box

We must observe clearly hydrogen's role as a driver of our clean future demands honest and, if I may, unbiased assessment.

- Aside from the “flat-earthers” who still deny **climate change** — those metaphorical musicians playing as the ship heads straight for the iceberg — the rest of civilization can no longer look away.
- The **climate crisis** and its cascading impacts are here, now: **visible, measurable, and increasingly costly** for societies across the world.
- Continuous growth based on fossil fuels and the transfer of CO₂ from the underground to the atmosphere is not evolution — **it is involution.**





620

Exajoules

Global energy consumption in 2024
reached a record level

2.2%

Overall Growth

Year-on-year increase in total
energy demand

4%+

Electricity Growth

Power consumption surged even
faster than total energy

Not About Depletion

Interestingly, today's challenge isn't the *availability* of fossil fuels — reserves remain substantial and accessible.

About Transformation

The question is **how to replace them wisely within an increasingly complex, interconnected energy system.**

The energy transition isn't a beauty contest between technologies — hydrogen versus electric, nuclear versus renewables. This binary thinking misses the fundamental point.



The Real Question

How do we **combine different solutions** — all sustainable from economic, social, and environmental perspectives — in ways that meet humanity's energy needs fairly and efficiently?

An Integrated Mix

We require a balanced portfolio where each energy vector — hydrogen included — plays its optimal role at the **appropriate scale and technological maturity**.

Geopolitical Balance

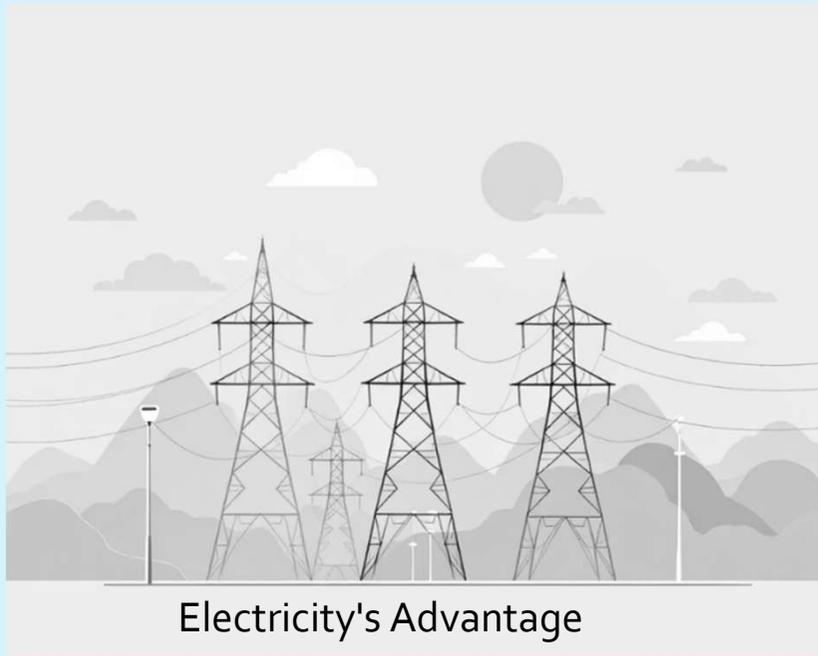
This energy mix must be **fair, secure, and geopolitically balanced** — free from new dependencies and from the old, hypocritical logic that claimed to build progress while exploiting others. **True sustainability means sovereignty, dignity, and shared responsibility** — not shifting the cost of our comfort onto someone else's horizon: in time (next generations) or in space (other regions).



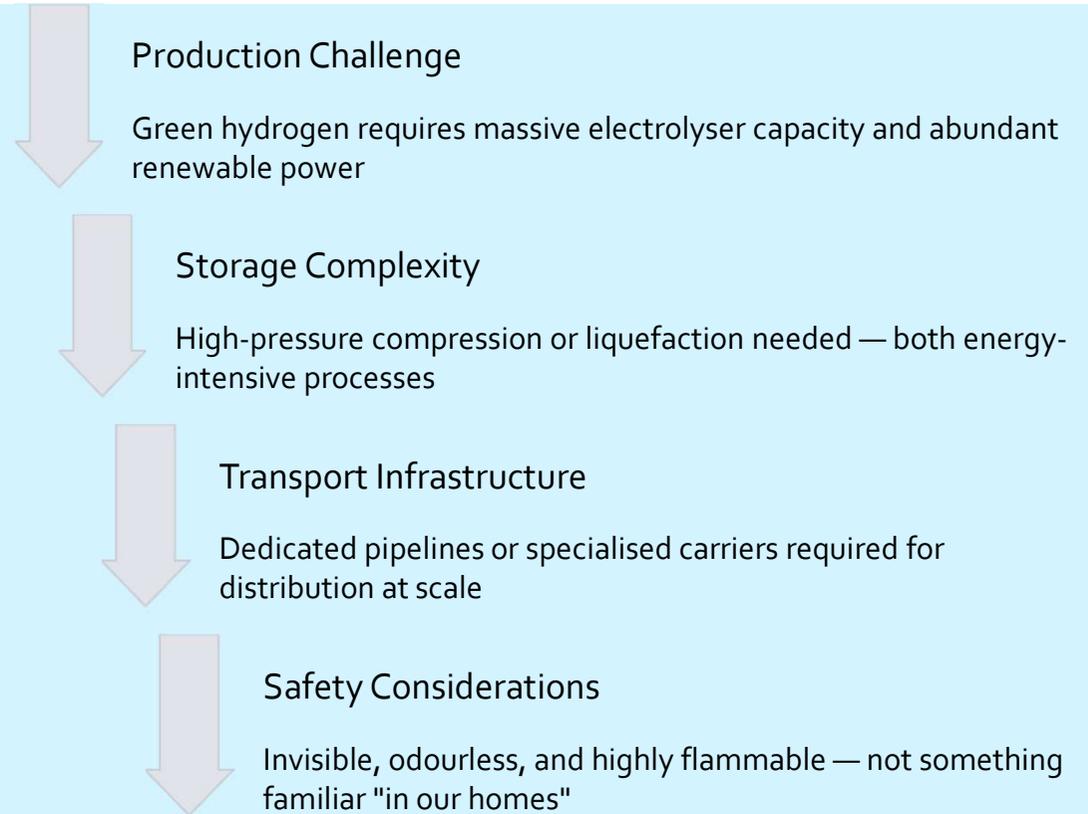
History teaches us that **energy density, infrastructure readiness, and scale** determine which technologies succeed — not necessarily which were invented first.



Hydrogen's Steeper Mountain to Climb – Mobility case



Already produced, distributed through mature grids, and safely used everywhere — from homes to hospitals.



Hydrogen still needs a **complete, safe ecosystem** — from production facilities to refuelling stations — before achieving mainstream adoption.

Yes, Green Hydrogen Is Expensive

Electrolysis demands substantial capital investment, lengthy permitting processes, and complex infrastructure for transport and refuelling networks.

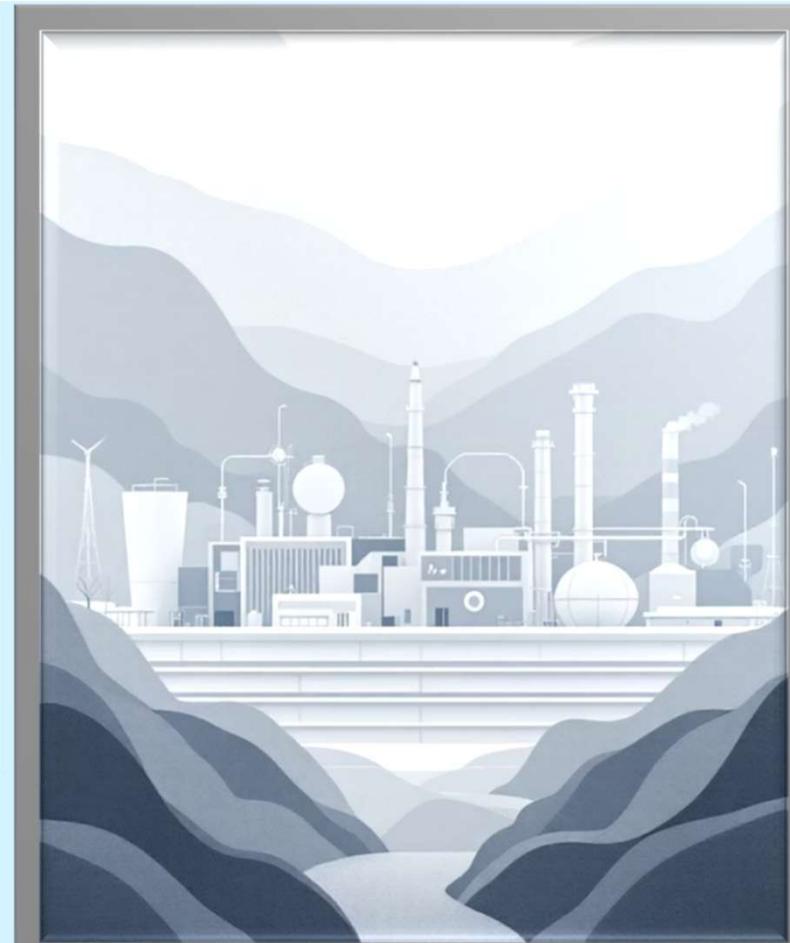
But in Hard-to-Abate Sectors

Steel production, heavy industry, aviation, and shipping face a stark reality: **there are no other viable decarbonisation options** at the required scale.

Not a Choice — A Necessity

For these industries, hydrogen isn't one option amongst many. It's the *only* pathway to achieving net-zero emissions targets.

The question shifts from "Can we afford hydrogen?" to "**Can we afford *not* to develop it for these critical sectors?**"



That's why we are here today:
to bring clarity — and maybe a bit of "healthy realism" — into the discussion;
To go beyond slogans, to show what works, what still doesn't, and what can be done next.

Our event today will follow three roudtables:

- I. **A European and national perspective** : To understand policies, strategies, and the technological landscape of hydrogen
- II. **The heart of our H2MA project**: Presenting results, tools, and experiences from the Alpine Space partners' Regions.
- III. **Concrete cases from the field in Veneto**: From buses to ports, from production plants to industries

So, thank you to all the speakers, to our interpreters, all participants, to the Interreg Alpine Space Programme and ERDF for funding, and above all to Fondazione Venezia Capitale della Sostenibilità and Codognotto Group for hosting us in this wonderful setting.

Let's open the box — and see if hydrogen is alive and kicking!

Proving, as they say in Young Frankenstein: "It can be done!"





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Thank you for ...
your passion

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