



# Organizational Readiness for Social Acceptance

## Webinar

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SINTEF Industry

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Co-funded by  
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# Agenda



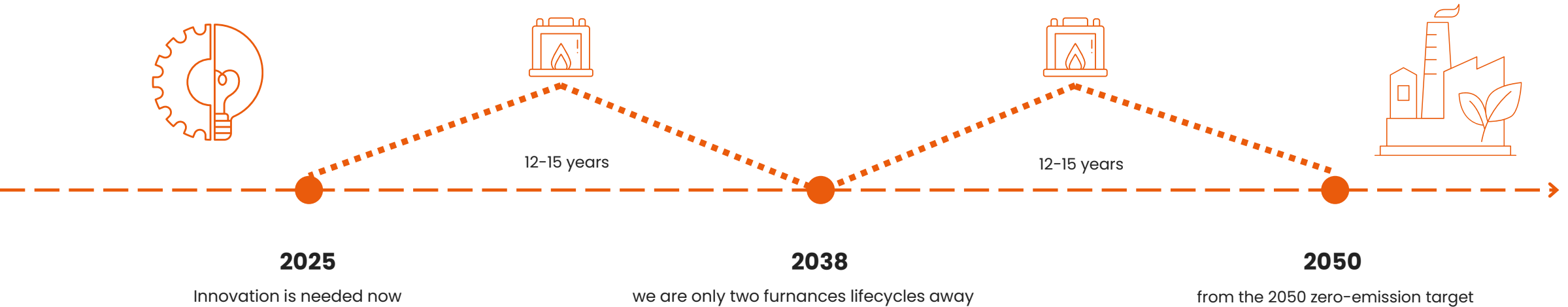
- Introduction to H2GLASS
- Organizational readiness
- Research and findings
- Key takeaways and next steps

# The Glass Decarbonisation Challenge

## Objectives

As an energy intensive process, glass and metal production poses challenges in achieving the EU's ambitious targets of net zero by 2050. The lifetime of a glass furnace is around 12–15 years, which underlines the urgency for innovation, considering that 2050 is only **two furnaces away**.

H2GLASS aims to **develop solutions** that glass manufacturers need to meet **climate targets** and make their sector sustainable by replacing fossil fuels with **100% hydrogen**, ensuring the required **product quality** and manage this **safely**.



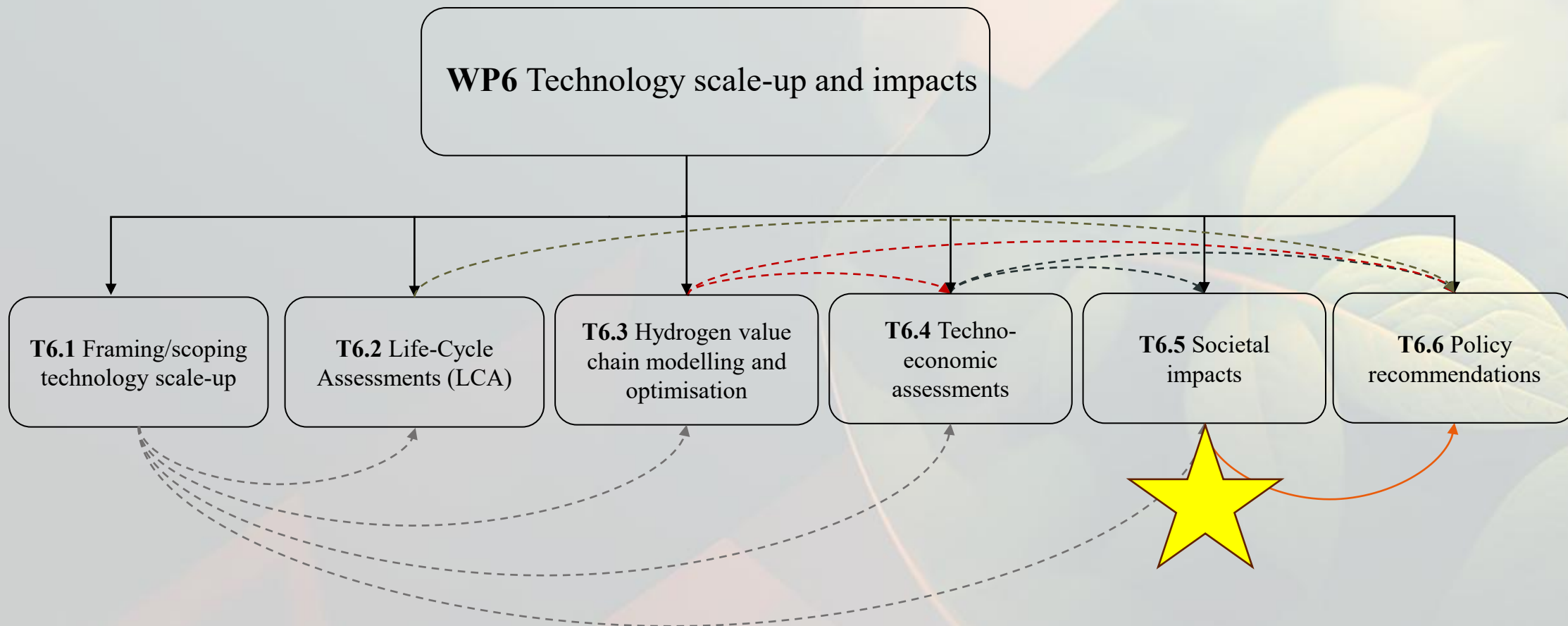
**Coordinated by SINTEF Energy**

**23 partners across 8 European countries**

**5 industrial demonstrators**



[H2GLASS Home](#)



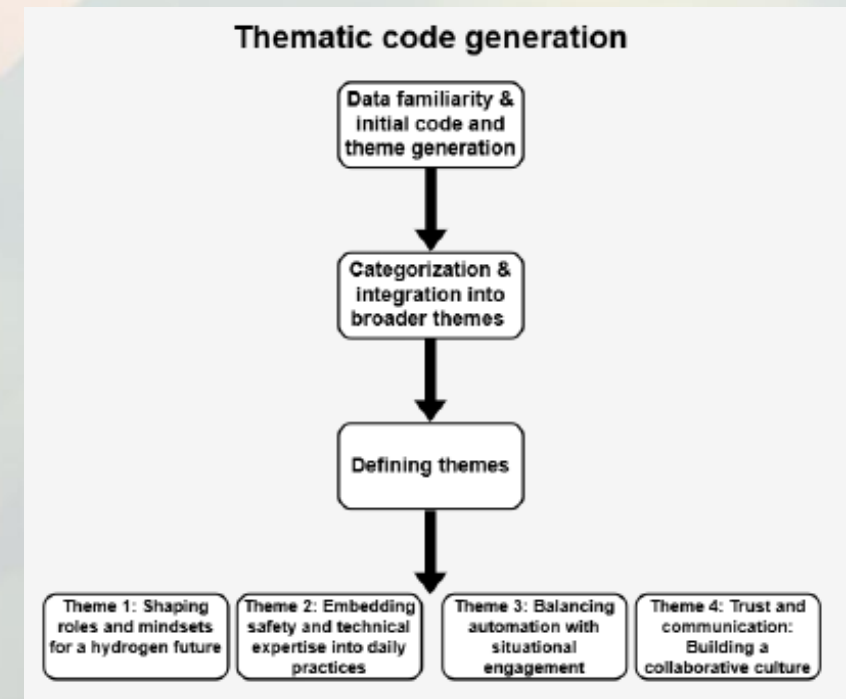
# Organizational readiness



- The ability for organizations to prepare for, adapt to, and successfully implement **change**.
- Ensures people, processes, and systems are aligned for upcoming initiatives.
- Reduces resistance and increases likelihood of project success.
- Focuses on **capability** (skills) and **willingness** (mindset).

**Qualitative case-study** assessing **human and organizational factors** in the **pre-implementation** phase of H2 integration in the metal industry.

- **6 interviews** across **3 organizations**.
- Thematic analysis used to organize and describe data.
- **Themes** developed through iterative comparison and refinement:
  - **Role adaptation and mindset shifts**
  - **Automation impact**
  - **Safety and technical expertise**
  - **Trust and communication**



# Perceived enablers

- Developing new skills, updating roles, and planning resources proactively drives **motivation** and **engagement**.
  - Sufficient staffing, targeted training, and time for learning to support resilient and safe operations.
- Continuous **attention to safety** in everyday work practices.
  - Embedded into daily routines through technical competence, hands-on training, ongoing knowledge sharing, and risk assessments/mitigation strategies.
- **Automation** as a key stabilizer in managing high-risk processes.
  - Control and release systems, safety valves, and Programmable Logic Controller (PLC) processes to stabilize H<sub>2</sub> supply and manage volatility.

“From an operational standpoint, the goal should really be that it does not affect much at all. It should not change daily routines and operations... If it is going to work, it cannot affect the daily routine.”

# Perceived barriers

- Uncertainty surrounding **metal quality** and **process stability**.
  - Early-stage efforts focus on integrating H<sub>2</sub> with minimal disruption, limiting deeper process adjustments.
  - Concerns about H<sub>2</sub> dissolving into metal and potentially affecting product quality.
- Difficulty translating **high-level** industry guidance into **site-specific** safety procedures.
  - Considerable time and resources required for safe implementation.
  - Need for proactive risk assessments and training as the project evolves.
- Tension between **economic constraints** and **environmental ambitions**—financial viability influencing H<sub>2</sub> adoption.

“... that is just the ‘brutal truth’ in the world we live in; money rules. So, unless it is economically positive, it will not happen in a way. So that is just a reality. . .”

“It is like electric cars versus conventional engines.. I feel like sometimes with hydrogen, we are back to this debate.”

# Key takeaways

- Visible investment in training and competencies builds **confidence** in the transition.
- Collaborative practices strengthen alignment between **strategic goals** and **local operational realities**.
  - Knowledge-sharing reduces uncertainty.
- Organizational readiness feeds directly into **social readiness**.
  - The more aligned the organization is, the more employees support and trust H2 solutions.
- Social acceptance begins **inside** the organization
  - Visible safety competence shapes external perception.

# Next steps



- Project now in the testing phase.
  - Experiences before vs. during implementation.
- Developing a policy framework to support future hydrogen integration.

Mitcheltree, C. M., Bly, K., & Silva, T. L. (2026). Advancing situational awareness for decarbonization: A case study on hydrogen integration in an energy-intensive industry. Manuscript under review at the Journal of Innovation and Entrepreneurship.

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