

Key messages from Market Shaping phase

Demand Creation: Social Acceptance & Adaptation

Goals:

1. Create incentives for green products
2. Boost public engagement and local acceptance
3. Promote just transition and job creation

Means:

- Use fact-based, inclusive communication and understandable language
- Connect public engagement with permitting process with help of neutral mediator
- Make all environmental benefits clear and transparent

Key Message:

Social acceptance drives hydrogen markets through engagement, transparency, and equitable deployment.

Stakeholders to engage:

Industries, policymakers, communities, media, academia

Regulation: Enabling Operational Environment

Goals:

1. Reduce regulatory barriers & clarify RFNBO rules
2. Ensure regulatory stability & transparent permitting
3. Balance emissions targets with competitiveness
4. Respect indigenous rights & fair land use

Means:

- Introduce incentives for green products
- Introduce tariffs on fossil products
- Create clarity, simplicity & continuity

Key Message:

Clear, stable, and aligned regulations unlock hydrogen investments and ensure social and environmental justice.

Stakeholders to engage:

Governments, regulatory bodies, industry, SMEs, civil society

Value Chains & Networks: Industry Synergies & Standards

Goals:

1. Strengthen value chains & hydrogen infrastructure
2. Ensure system efficiency by sector coupling & power grid integration
3. Ensure access to critical minerals
4. Enable EU competitiveness

Means:

- Enable technological innovation
- Align industry standards & harmonize units
- Boost interaction across industries

Key Message:

Strong value chains, standardized infrastructure and system flexibility drive hydrogen innovation, market resilience, and sustainability.

Stakeholders to engage:

EU member states, industry consortia, TSOs, tech developers, research networks

Key messages from Insight Harvesting phase

1. **Hydrogen will play a vital role across multiple sectors by 2050.** It is essential not only as an energy carrier but also as a building block for products like ammonia and methanol, requiring expanded innovation and strategic planning.
2. **Hydrogen use should be prioritized in markets with immediate demand.** Policymakers need to incentivize hydrogen applications that are currently viable and support emerging uses through market mechanisms and policy initiatives.
3. **Europe's regulatory landscape for CCU remains fragmented.** Coordinated policy efforts are necessary to streamline regulations and foster a sustainable hydrogen-CCU value chain.
4. **Financing the hydrogen economy presents significant challenges.** Transparent electricity pricing and innovative financing mechanisms are crucial to support infrastructure development and reduce dependency on external markets.
5. **Hydrogen enhances grid flexibility and system resilience.** As a storage solution, it can offset the intermittency of renewable energy sources and support diverse applications across the energy system.
6. **Developing regional hydrogen ecosystems is essential for sustainable growth.** Local conditions, such as grids and available resources, should be leveraged to support community resilience and equitable economic benefits.
7. **Social acceptance is critical for the success of hydrogen and CCU projects.** Early communication and community engagement are vital in addressing public concerns about infrastructure and biodiversity impacts.
8. **Industrial symbiosis enhances public support for hydrogen projects.** Sharing resources among industries can lead to greater efficiency and community buy-in, aligning with broader sustainability objectives.
9. **Equitable distribution of benefits and burdens is necessary in the hydrogen transition.** Regions should receive adequate support in the form of jobs and tax benefits to avoid disparities and ensure sustainable development.
10. **A long-term vision for integrating hydrogen and CCU is necessary.** Stakeholders should be unified around a comprehensive strategy that addresses technical and societal challenges for a sustainable hydrogen-2-X system.