VANGUARD INITIATIVE
New growth through smart specialisation

Pilot Mid-Term Review Pitch 2026

Hydrogen Pilot Project

September 25, 2026

Pilot Approach

1. Societal & Industrial Challenge(s) To Be Addressed

- **Local Grid Congestion & Intermittency:** Managing price volatility and local power distribution bottlenecks driven by high renewable integration.
- **Industrial Decarbonization:** Eliminating high fossil fuel dependence in energy-intensive industries (e.g., glass manufacturing) and maritime logistics.
- **SME De-Risking:** Overcoming high market entry barriers, administrative complexity, and regulatory friction for regional SMEs across borders.

2. Pilot Objectives in 2026

- **Targeted Value Chain Building:** Shifting from broad discussions to targeted matchmaking between technology providers, off-takers, and research infrastructures.
- **Technical & Operational Frameworks:** Validating decentralized "Small Hydrogen Valleys" via modular building blocks (HyPro) and automated flexibility trading (OFFSET).
- **High-Level Mobilization & Policy Alignment:** Strengthening Vanguard visibility, engaging EU policymakers, and aligning demo cases with EU funding streams (e.g., VInnovate, Horizon Europe, I3).

3. Pilot Governance

- **Active Coordination Management:** Expanded role for the Coordinating Manager to drive targeted brokerage and proactive stakeholder alignment.
- **Pillar-Based Execution:** Operational alignment linking regional leads (Slovenia, Lombardy, FVG, Małopolska) directly to strategic demo case execution.

Pilot Activities

1. **Mapping of Activities within Pilot Methodology:**

- Advanced technical evaluations for key demo cases, including the H2LEC "Small Hydrogen Valley" blueprint and OFFSET flexibility dispatch logic.
- Supported progress across regional demo cases (e.g., H2 in Shipping proposal stage, H2ERE Network platform, H2GLASS).
- Structured stakeholder database updates and initial interregional online matchmaking sessions.
- Targeted bilateral and multilateral exchanges to build concrete cross-regional value chains.

2. **Highlights of 2026**

- Organizing the Hydrogen Pilot Summit on October 26, 2026, hosted at the Slovenian Permanent Representation to the EU in Brussels.
- Successfully integrated an Italian SME "Success Story" to showcase how VInnovate simplifies cross-border innovation funding and lowers entry barriers.

Assessment of Pilot Progress

1. Pilot Engagement

- Transitioned from generic mapping to targeted matchmaking linking regional clusters (e.g., KC STV, LE2C, Mare FVG) to research institutions, technology providers, and SMEs.

- Learnings:

(1) Regional outreach must target pre-filtered industrial archetypes using specific diagnostic criteria; replacing general inquiries with precise technical profiling saves time and secures immediate partner focus.

(2) Technical validation of decentralized models like H2LEC requires modular, standardized building blocks ("HyPro") and clear operational software (OFFSET) to allow regional hardware/software SMEs to plug into value chains easily.

2. Key Advances

- Concrete Demo Case Progression: currently the H2LEC into a "Smart Systems" demo case with KC STV leadership, validating the "HyPro„ (Hydrogen Prosumer) modules and the automated trading logic.

- Direct brokerage expansion to onboard key industrial off-takers and regional SME leads into value chain discussions.

Elements to use for VI Communication

1. **Link to Policy level**
   - Hosting the flagship Hydrogen Pilot Summit (October 26, Brussels) at the Slovenian Permanent Representation to connect regional leads directly with EU policy managers.
   - Utilizing the H2LEC "HyPro" demo case to demonstrate automated flexibility trading as a concrete policy tool for mitigating local grid congestion and price volatility.

2. **Industrial Strategy and Innovation Implementation**
   - Decarbonizing Hard-to-Abate Sectors: Driving industrial transformation through targeted demo cases, such as direct fossil fuel substitution in glass manufacturing (H2GLASS / Steklarna Hrastnik) and maritime transport (H2 in Shipping in FVG).
   - Interregional Value Chain Building: Fostering regional specialization by linking tech providers, cluster leads, and industrial off-takers across Slovenia, Lombardy, FVG, and Małopolska.
   - Cross-Border Infrastructure: Standardizing hydrogen pipeline and vessel transport infrastructure via the HYDROCOMP demo case to ensure interoperable regional supply chains.

Hydrogen Pilot Summit 2026

Event Overview

- **Title:** *"Building Robust, Autonomous & Connected Regional Hydrogen Ecosystems"*
- **Date & Time:** October 26, 2026 | 09:00 – 14:00 (Followed by Networking Lunch)
- **Venue:** Permanent Representation of the Republic of Slovenia to the EU (Rue Joseph II 14, 1000 Brussels)
- **Open Invitation:** All attendees, European policymakers, regional authorities, industry leads, and innovation stakeholders are warmly invited to participate and join our matchmaking sessions.

Program & Strategic Highlights

- **Keynote & EU Policy:** High-level policy perspectives from Valérie Bouillon-Delporte (Executive Director, Clean Hydrogen Partnership) and Marion Malafosse (Policy Officer, DG ENER).
- **Session 1: Hydrogen Valleys & Mega-Corridors:** Cross-border infrastructure, port integration (Bilbao), and Central European regional clusters.
- **Session 2: Materials & Technical Innovation:** Electrolyser manufacturing, academic R&D, and industrial pilot centers (Kisovec Centre).
- **Session 3: Smart Local Systems & Autonomy:** System integration, North Adriatic Hydrogen Valley implementation, and the H2LEC digital twin framework.