JRC support to the Clean Hydrogen JU’s activities

P. Moretto
European Commission
The scope of the JRC - JU Collaboration

Knowledge Management
- Programme targets (MAWP-SRIA)
- Annual Programme assessment
- TIM Tool for Innovation Monitoring

Sustainability
- Methods Guidelines
- Datasets

Regulations Standards
- Strategy
- Tests harmonisation
- HIAD Database

Safety
Knowledge Management

MAWP objectives

Key Performance Indicators

Target setting

State of the Art  Future Target

Target monitoring

Annual Programme Assessment

Guidelines for Programme-level Target Setting

SRIA update
Sustainability

The first overview report on findings, with conclusion consented among a broad group of stakeholders.

Input to the study on CRM for electrolysers and fuel cells.
Energy and Industry Geography Lab

Hydrogen infrastructure

Hydrogen production facilities

- Current hydrogen production facilities
  - Alkaline electrolysis
  - Proton exchange membrane electrolysis
  - Solid oxide electrolysis cells
  - Fossil based hydrogen + CCS
  - Power to Gas
  - Other or unknown
  - < 1 MW
  - > 1 - 10 MW
  - > 10 - 100 MW
  - > 100 MW

Data from HE

Energy and Industry Geography Lab (europa.eu)
Max annual water consumption, 2023 (m³/y)
Max annual water consumption, 2050 (m$^3$/y)
Sustainability & Circularity

- Review **project LCA deliverables** and develop a **checklist** to help projects
- Investigate environmental and social impact **H₂ delivery**
- Develop **FCH inventories** for the Life Cycle Data Network
- Summarise outcomes workshop on **H₂ emissions**
Harmonisation of water electrolysis tests

Testing hardware
Hydrogen safety - why an incidents database?

The three human faculties of memorising:

- storing
- encoding
- retrieving
HIAD database - upgrade September 2023

HIAD 2.1 is available as EXCEL dataset, downloadable from: https://minerva.jrc.ec.europa.eu/en/shorturl/capri/hiadpt

For questions, special requests and input of new events:
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Every European institution can apply:
We have already served tank manufactures, fuel cells system developers and membrane researchers:

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Thank you!

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