

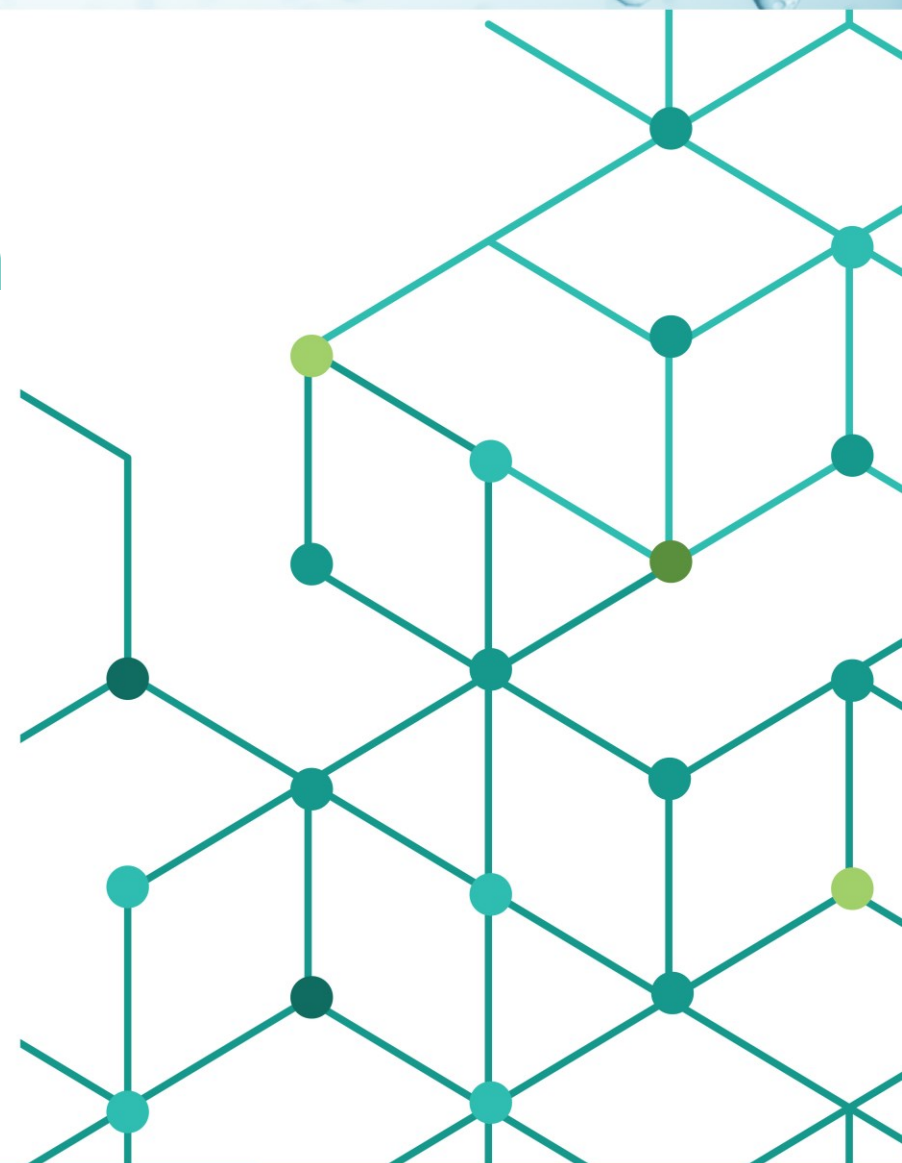


The European standardization roadmap along the whole hydrogen value chain

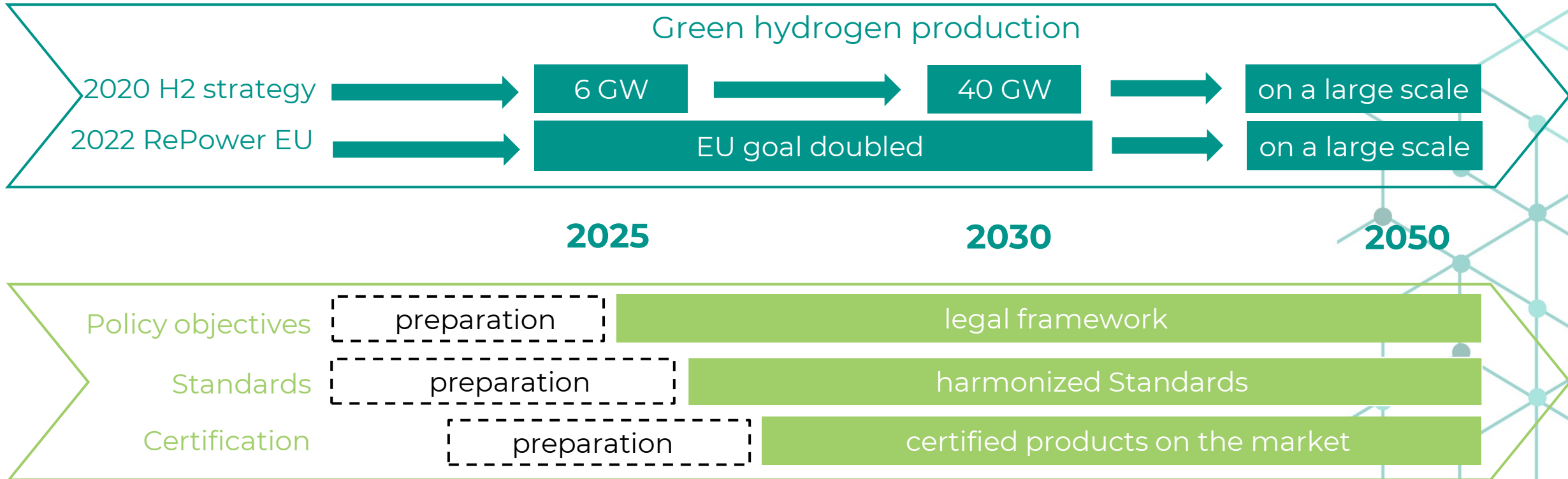
European Clean Hydrogen Alliance

Sabine Pintaske (Siemens AG)

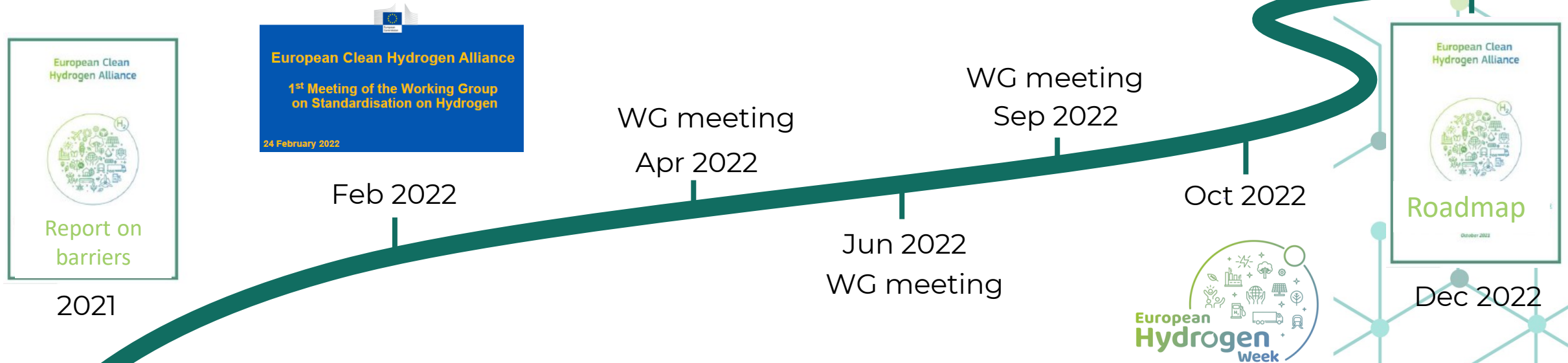
2022-10-26



Why do we need hydrogen standards?



Hydrogen Alliance working group on standardization - timeframe



Identification of lack of hydrogen standards as an important barrier to the roll out of hydrogen technologies and applications.

Objectives and structure

Objectives:

- Collect standardization needs along the whole value chain
- Identify pre-normative and ongoing standardization activities
- Merge all standardization issues and identify priorities/ gaps
- Prepare a Hydrogen standardization roadmap along the whole value chain
- The objective is not to develop standards

Structure:

- Chair: EU Commission
- Members: standardization experts / representatives of companies/ members of the Clean Hydrogen Alliance
- Observers: standardization bodies

Taken into account:

- Work of SFEM/WG on Hydrogen
- Work of CEN/CENELEC Technical committees
- Preliminary CEN/CENELEC Hydrogen standardization request list
- Sector specific activities: maritime, aviation ...

Challenges and needs

Challenges:

- large scope
- diversity of standardization requirements
- traditional and new topics
- regulatory framework have to be taken into account
- application specific aspects
- horizontal standardization needs along the value chain

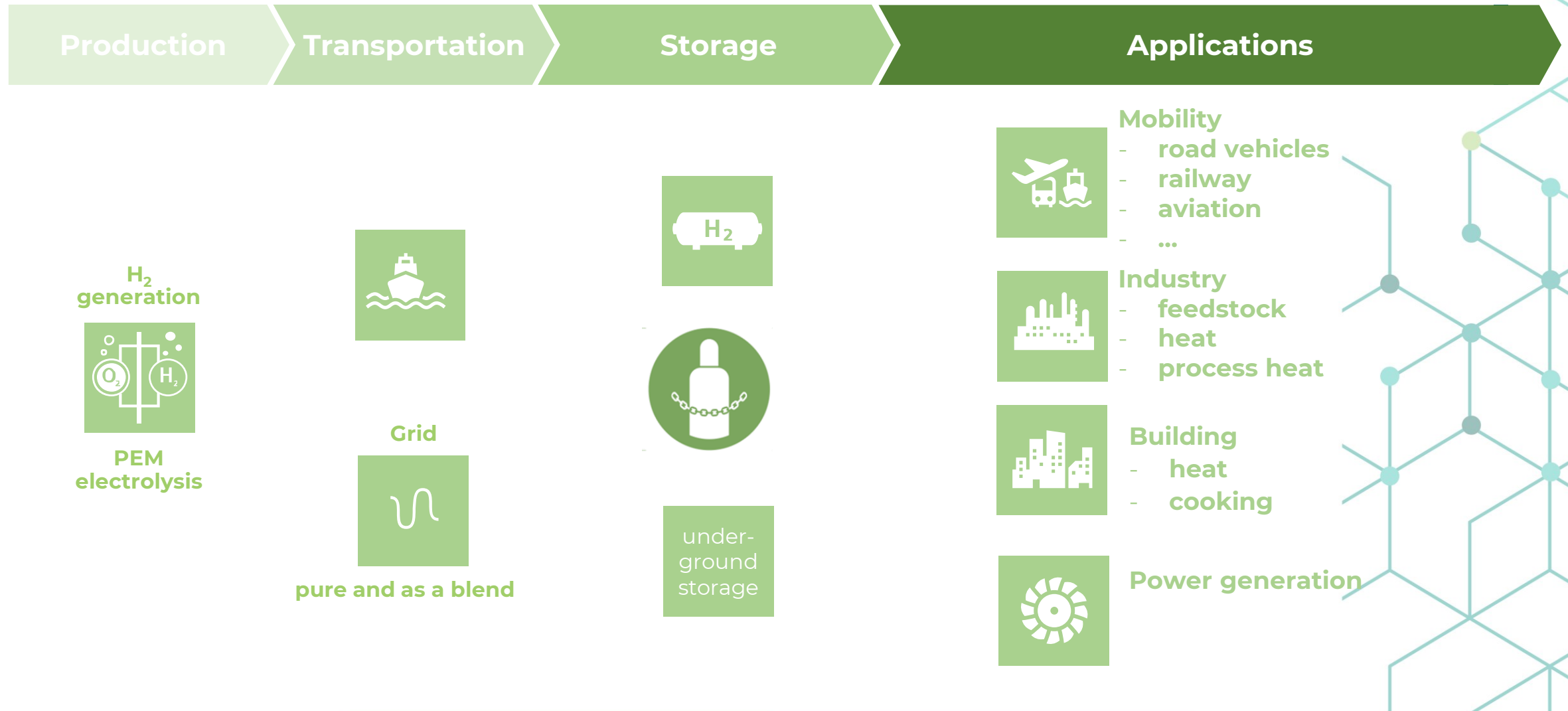
Standardization is a process

- consensus approach
- resources needed

Needs:

- Overview on:
 - ongoing standardization activities
 - further standardization needs
 - pre-standardization needs
- strategic approach
 - prioritization and clustering of horizontal standardization aspects
 - coherence and coordination of standardization activities

Hydrogen standardization topics along the value chain



Interim results and next steps

Interim results:

- more than 300 standardization topics and according stages identified by several sectors
- horizontal aspects highlighted
- regulatory and standardization framework identified

Horizontal aspects:

- terminology
- hydrogen quality
- safety aspects
- environmental aspects
- ...

Next steps:

- Clustering / prioritization
- Finalization of the roadmap expected: 05.12.2022
- Feed the roadmap into the standard-setting process at EU level (CEN/ CENELEC) in cooperation with the International level (ISO/IEC) – EC standardization request
- Get all stakeholders involved in the standard-setting process
- EC support for pre-normative research including funding

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