

# International hydrogen certification and compliance

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*07 July 2022*

**Hydrogen** |  
**Council**

# Hydrogen certification: puzzle solving

**1**

**Keep the pieces  
in order**

**Keep the pieces  
on purpose**

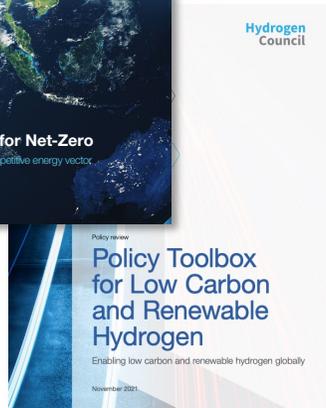
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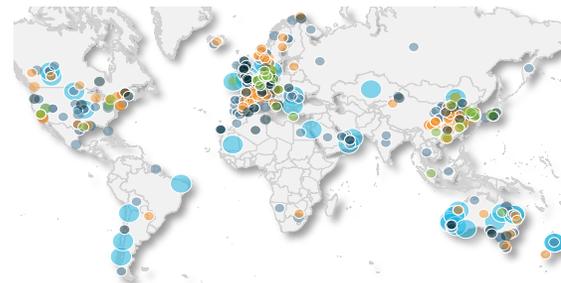
**Build consensus with  
constructive action**

# Who we are

## Thought Leader



## Unique Source of Global Industry Data



## Trusted Partner to Global Organisations



# Unlocking social value of the hydrogen economy

Public-private cooperation will play a key role in unlocking the positive contribution that hydrogen can bring to several UN Sustainable Development Goals, including:



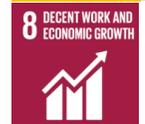
**Good health and well being** ⇒ Reducing air pollution



**Diversity, equity and inclusion** ⇒ Helping unlock diverse talent pool



**Affordable and clean energy** ⇒ A clean and versatile energy vector



**Decent work and economic growth**

- ⇒ Fuelling green growth & deliver sustainable jobs
- ⇒ Creating opportunities for indigenous communities through employment and new business creation



**Industry, innovation and infrastructure**

- ⇒ Fostering decarbonization of the industry, innovation and deployment of clean infrastructure



**Sustainable cities and communities**

- ⇒ Clean transportation and heating
- ⇒ Sustainable jobs for local communities



**Climate action** ⇒ Key solution to decarbonizing economies



# Program Portfolio

## Sustainability Program

- In collaboration with our international partners, facilitate the development of
- International industry standards for assessment of H2 sustainability attributes
  - Robust tradeable certification systems
  - Reporting and disclosure standards

## Industry Evolution Program

- Deliver insights into the evolution of the global industry based on data from >130 industrial leaders in hydrogen
- Provide insights into tangible energy system-wide benefits of hydrogen
- Identify cost-effective patterns for global cross-border trade in hydrogen

## Safety/Regulatory Program

- In collaboration with our international partners, facilitate the development of international safety regulations, codes and standards for the industry
- Foster knowledge sharing and best practice exchange in the industry

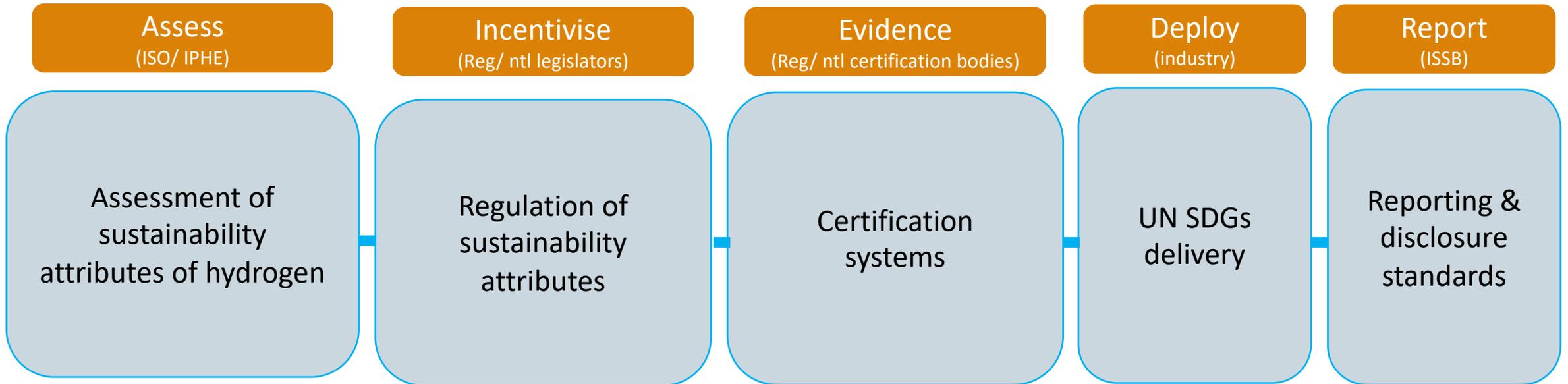
## Finance & Bankability Program

- Address barriers to project financing through collaboration with the Council's Investor Group members
- Foster knowledge sharing and best practice exchange among international investors

# HYDROGEN SUSTAINABILITY PROGRAM:

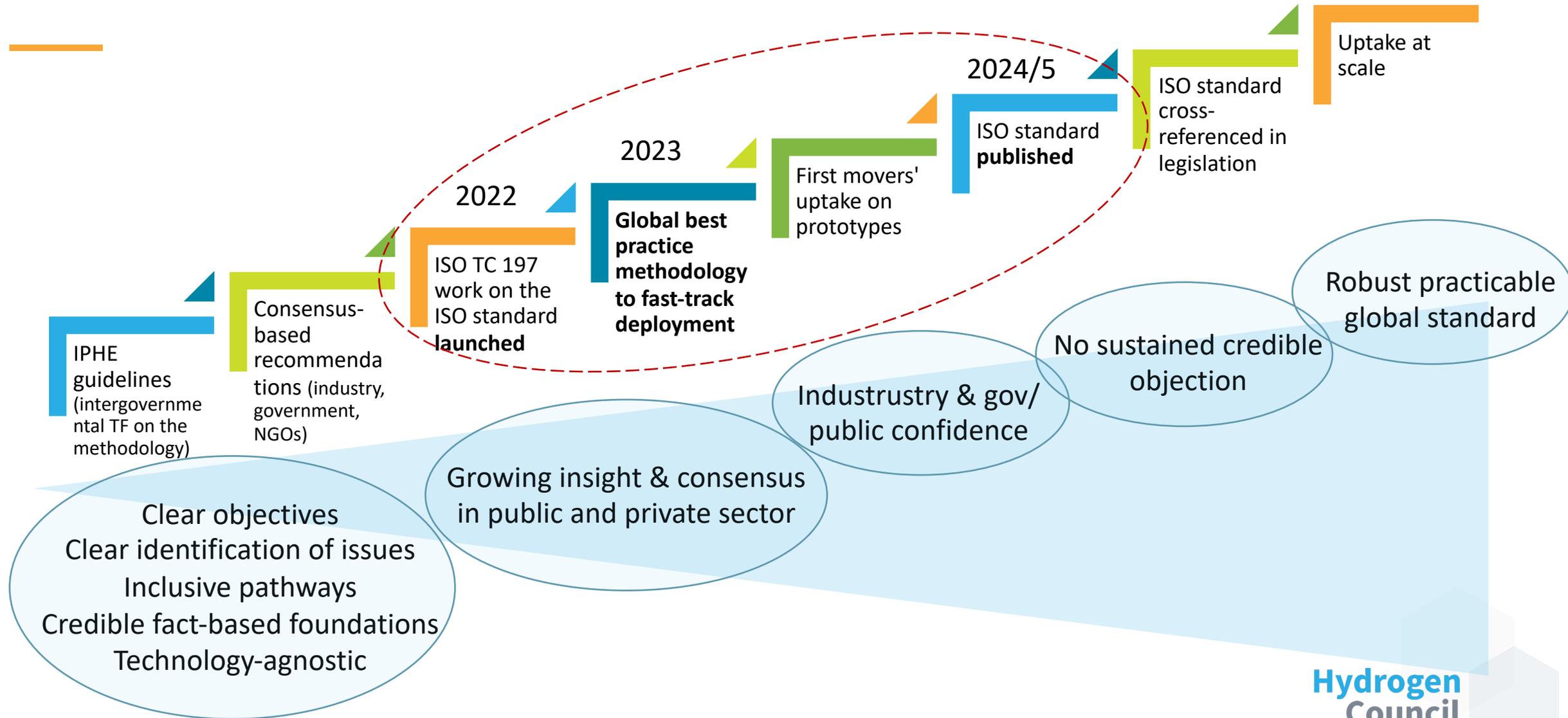
Joining forces with International Partners for global consensus-based standards, robust tradable certification systems and reporting and disclosure standards

## HYDROGEN SUSTAINABILITY PROGRAM



*Cross-cutting topics include guidelines for qualifying hydrogen as low carbon/renewable - e.g. creating a repository of the emerging thresholds, hydrogen definitions and potential 'corridors'*

# Towards an ISO standard methodology for assessment of GHG emissions of H2

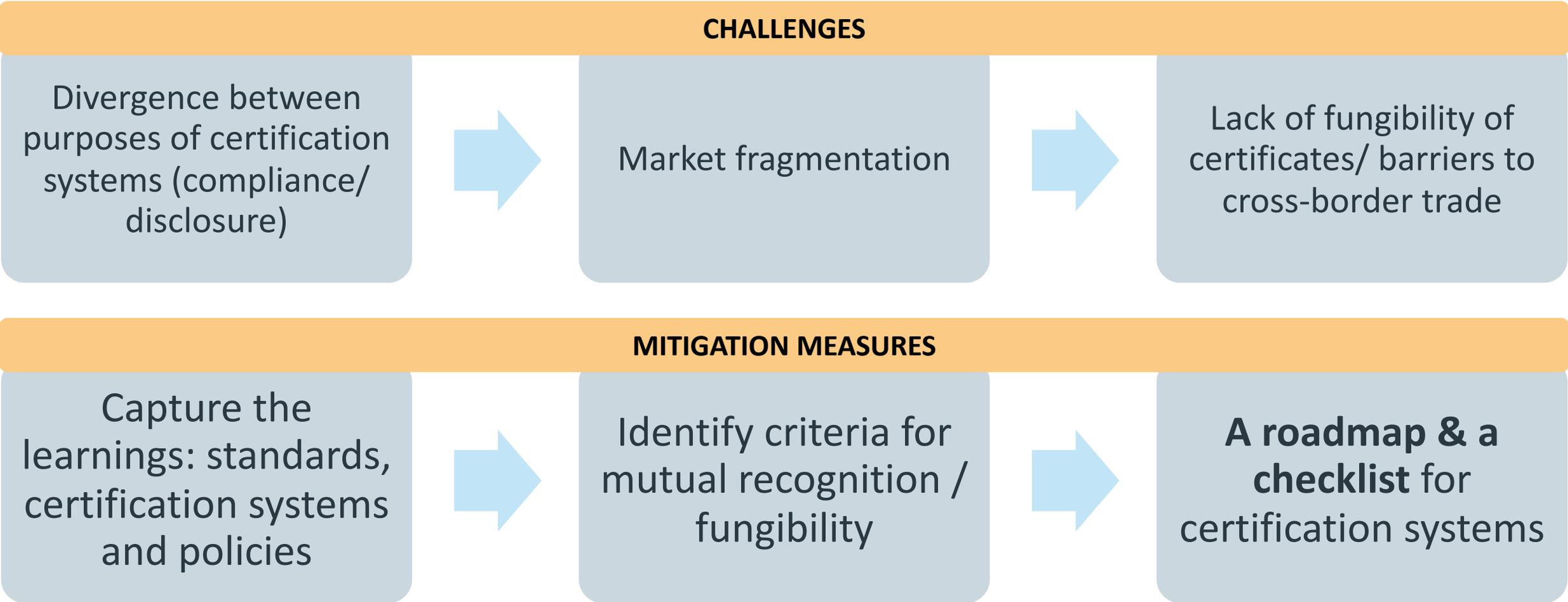


# Hydrogen certification systems: purpose

Robust tradeable certification systems for hydrogen are key to

- 1 Evidence the **sustainability attributes** of hydrogen (carbon footprint in particular) in a **credible and consistent manner** internationally
- 2 Create **transparency for consumers** and enable **consumer choice**
- 3 Allow consumers to **signal demand** for hydrogen based on its sustainability credentials
- 4 Create trust between prospective importers and exporters, fostering global, **cross-border trade in hydrogen** based on its sustainability credentials

# A roadmap for robust tradeable certification systems for hydrogen: challenges and mitigation measures



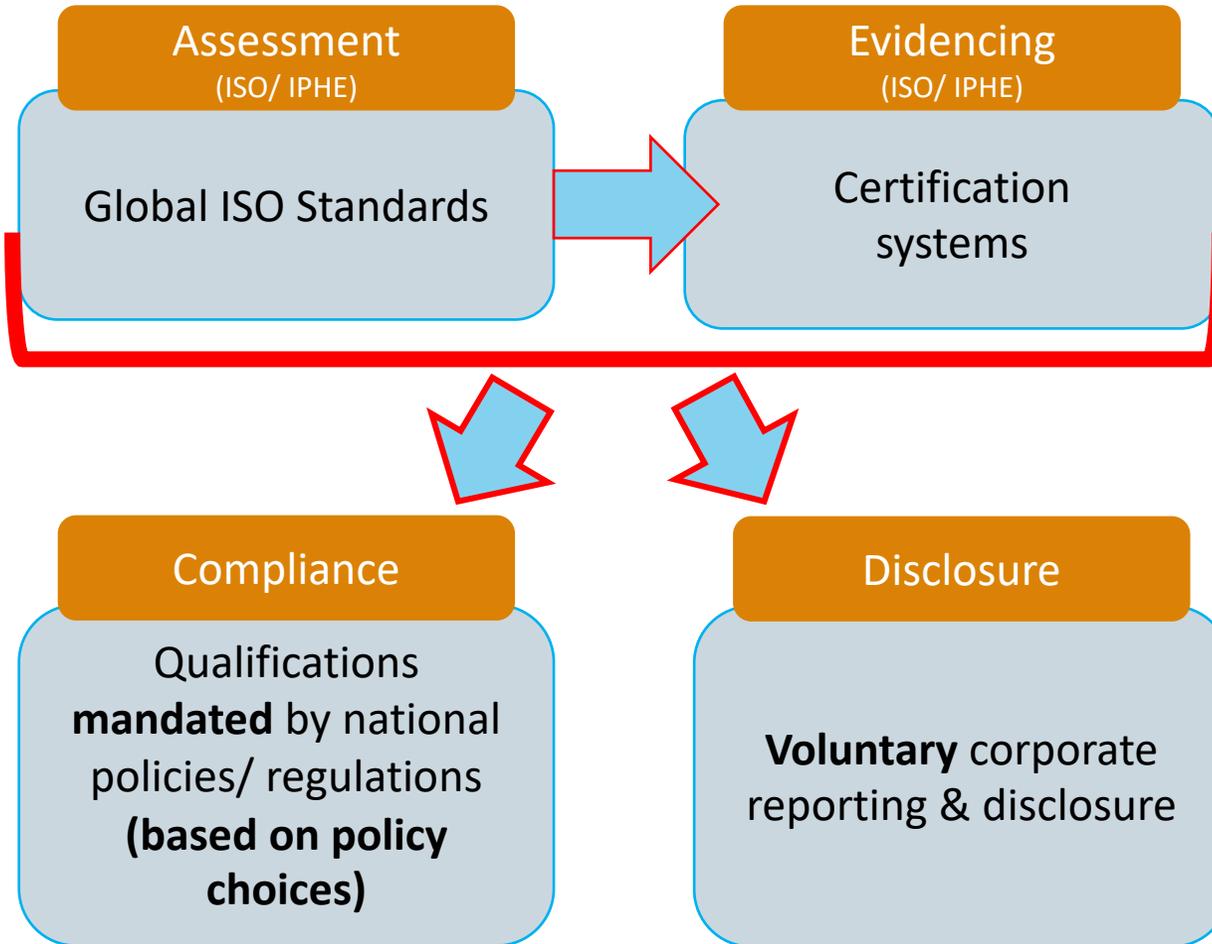
*Practical solutions to enable mutual recognition between hydrogen certification systems*

# Hydrogen certification systems: key principles

Ensuring certification systems for hydrogen are credible and fit for purpose

- 1 Put in place **robust governance and oversight structures**
- 2 Ensure **double counting** is avoided
- 3 Use **well-established global ISO standards** and the available **IPHE guidelines for hydrogen** as the basis
- 4 Prioritise/ Create merit order of the **sustainability attributes to evidence in the near term** to stimulate the development of the hydrogen market – i.e. the carbon footprint of hydrogen. Other sustainability attributes can be evidenced on a voluntary basis until the market matures.

# Standards, Certification Systems and Policies/Regulations: distinct instruments with distinct purposes



Example: EU Taxonomy for Sustainable Finance setting out rules for qualifying hydrogen production as a sustainable economic activity refers to ISO 14067:2018 & ISO 14064- 1:2018

## Example: RED II – an EU policy framework

EU energy market design-  
specific qualifications



Lack of clarity/ feasibility for  
third countries



Risk of precluding imports

It creates a compliance market for renewable H2 and derived fuels

**Necessary next steps: make qualifications in RED II DAs fit for purpose**

Consider

- Links with the EU Energy System Integration Strategy
- Links with the EU ETS
- Differences in market design in third countries

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- Enable mutual recognition
- Recognise and be inclusive of regional differences
- Build trust through robust underlying standards

# Europe in focus: strengthening Europe's energy security and independence from Russian fossil fuels a key priority



*'The quicker we switch to **renewables and hydrogen**, combined with more energy efficiency, the quicker we will be truly independent and master our energy system.'*

*- European Commission President von der Leyen, 08 March 2022*

## Security of Supply



Affordability

Sustainability



# Germany has the opportunity to become an H2 champion at European & at global level

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- Existing infrastructure endowments
- Industrial know-how
- Manufacturing capabilities
- Talent pool

THANK YOU

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