CertifHy –
Creating the 1st EU-wide Guarantee of Origin for Green Hydrogen

Project supported by the FCH JU

FCH 2 JU programme review days

Friday 24th November 2017

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Who are we?
The CertifHy project team

CertifHy phase 1 & 2

Hinicio

Project leader

Independent strategy consulting firm specialized in sustainable energy and transport with a European competence centre on hydrogen and fuel cells.

ECN

The Energy research Centre of the Netherlands (ECN) is a leading independent European institute for applied energy technology development, energy research, and policy advice.

ludwig bölkow systemtechnik

LBST is an expert consultancy for sustainable energy and mobility founded with a European competence centre on hydrogen and fuel cells with one of the longest track-records.

TÜV SÜD

TÜV SÜD is one of the world's leading technical service providers of testing, inspection, certification and training solutions with the strategic business segments INDUSTRY, MOBILITY and CERTIFICATION.

CertifHy phase 2

grexel

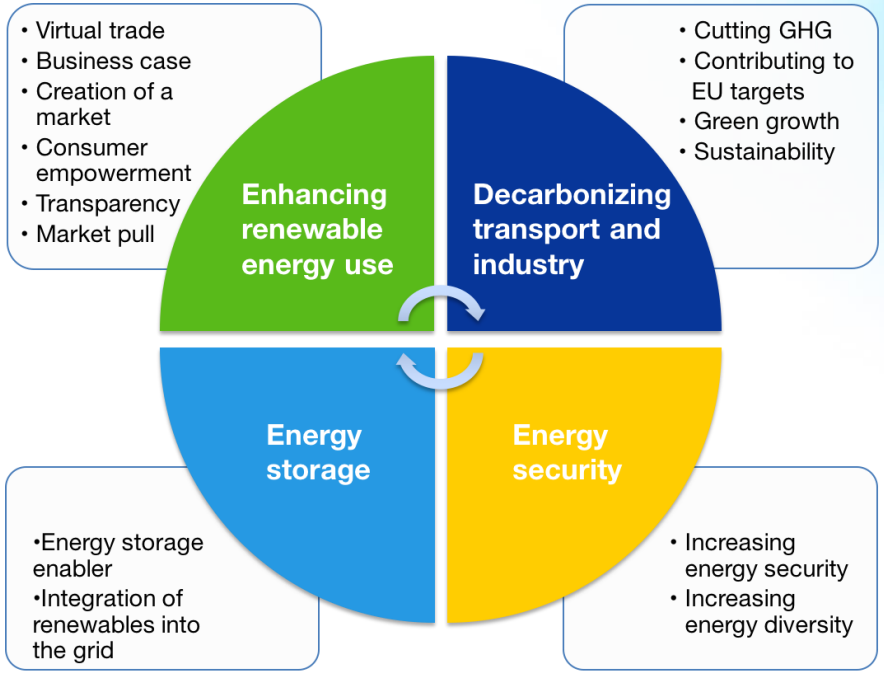
Grexel is the leading European energy certification service provider

Why a Guarantee of Origin (GO) for Green Hydrogen?

- CertifHy **will boost demand and supply of Premium Hydrogen** throughout Europe by **creating a market for green Hydrogen**
- Premium Hydrogen can help Europe become the **number one in renewables** and reach **EU targets of cutting 80- 95% of greenhouse gas emissions by 2050.**

- **Global demand for hydrogen = 50 Million tons by 2025**
- **3,5% hydrogen market growth per year**
- **50 - 60% of all hydrogen for the growing market of transportation will originate from renewable or low-carbon sources by 2030.**

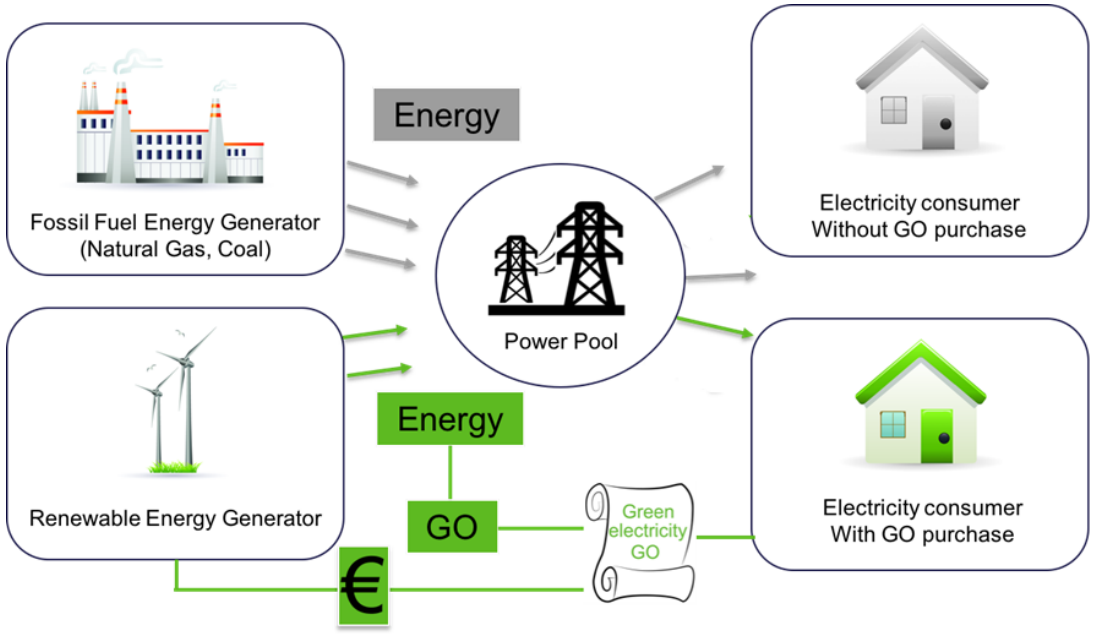
Benefits of an EU-wide GO scheme for Green Hydrogen



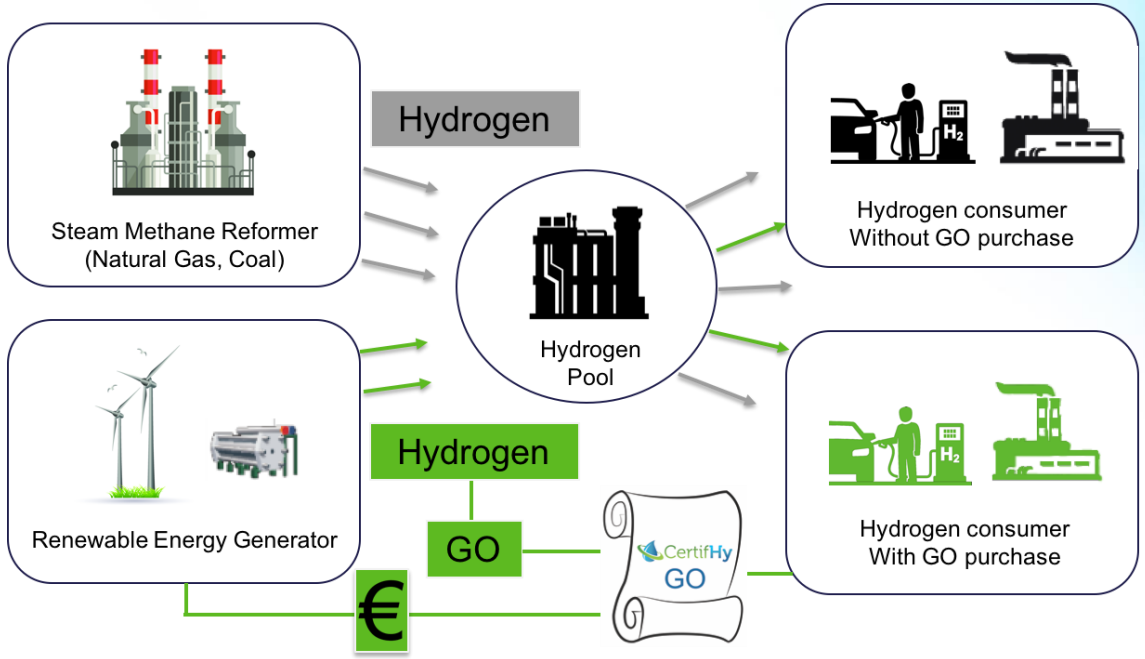
What is a GO scheme?

- A **Guarantee of Origin (GO)** guarantees the **origin of a product** and provides **information** to customers on the **source of their products.**
  - **Examples:** Fair trade (coffee, oranges), Palm oil, green electricity etc.

Renewable electricity GO scheme



Green hydrogen GO scheme



CertifHy aims to develop the 1st European-wide Green and Low Carbon hydrogen GO scheme

2014 — 2016 — 2017 — 2018/9 — 2020s..

Phase 1

1. Define a **widely acceptable definition of green hydrogen**
2. Determine how an **EU wide robust GO scheme** should be **designed and implemented**

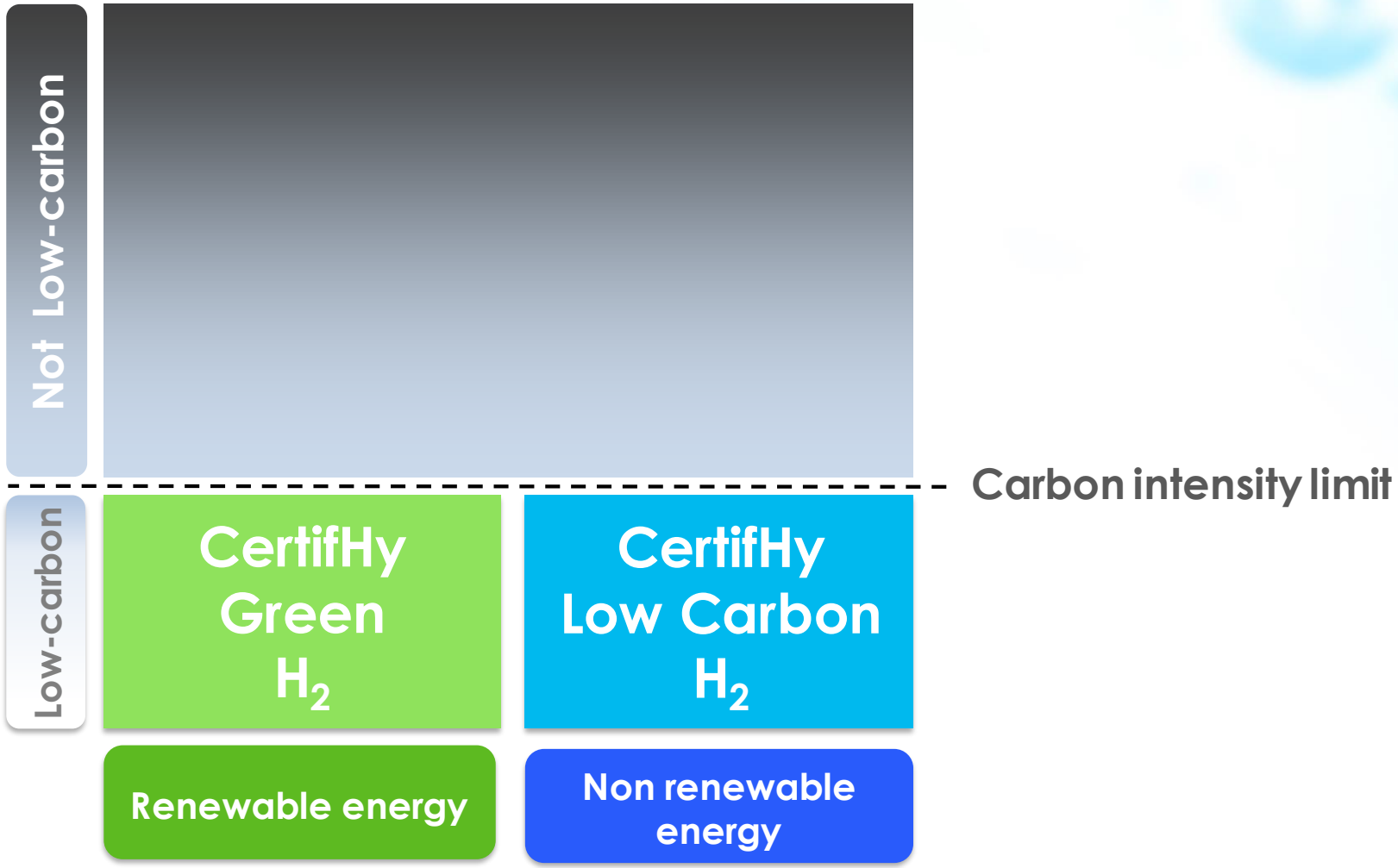
Phase 2

1. Set-up a **hydrogen GO Stakeholders' platform & its Steering Group**
2. **Finalise the scheme design** ensuring it can be the **main route to guarantee the origin of green & low carbon hydrogen across EU MS**
3. **Run a pilot scheme** to test the proposed design.
4. **Identify actions** which need to be undertaken after the completion of the study to **achieve an EU wide deployment of the scheme in a self-sustainable manner**

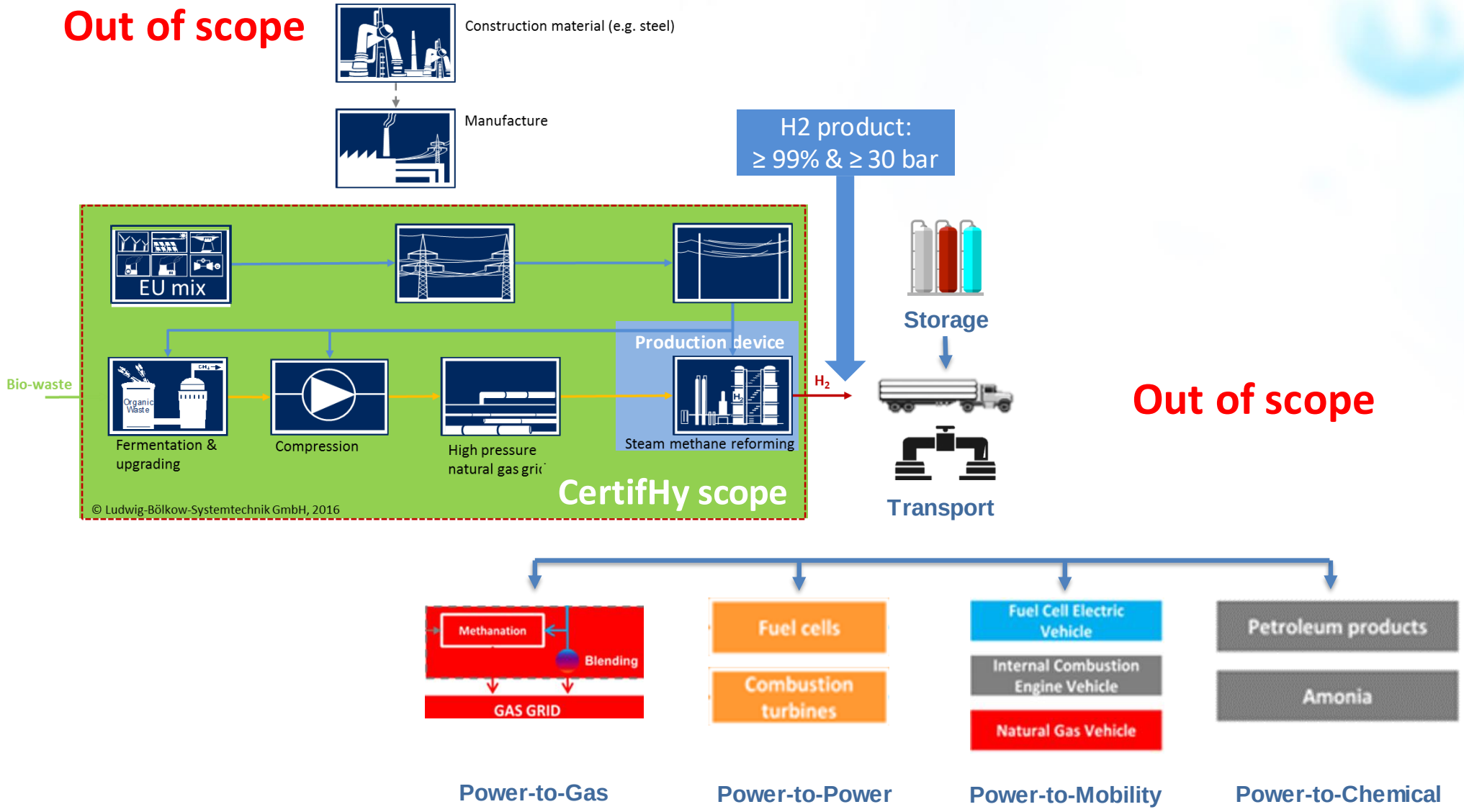
Phase 3

1. **Prepare EU wide deployment:**
   - Implement key elements
     - **Competent authority,**
     - **Issuing Body,**
     - **Registry operator,**
     - **Accreditation body**
2. **Finalise Regulation, Codes and Standards:**
   - CEN Standard
   - EU and national regulation
   - "EECS for green H2"

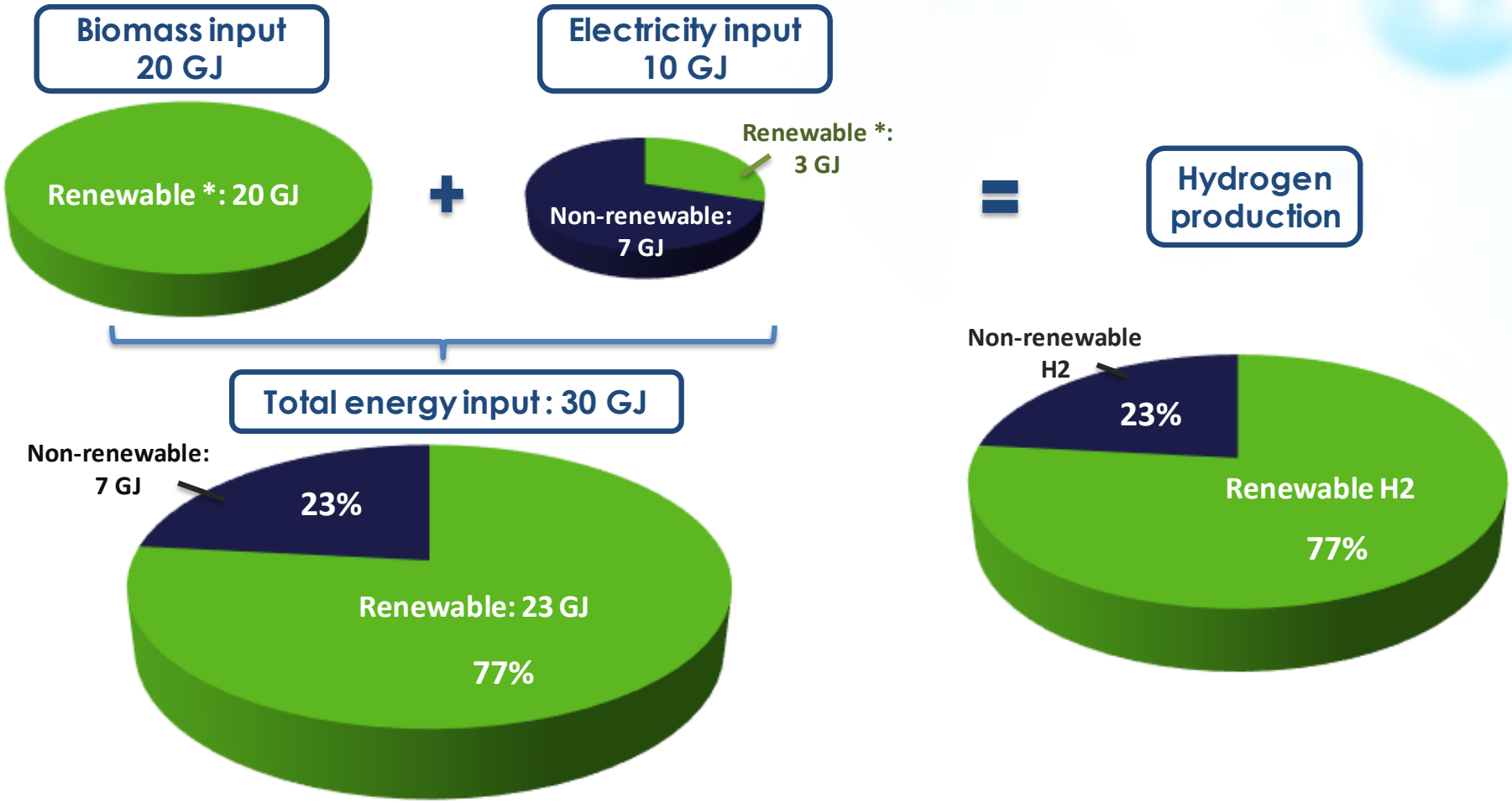
The definition of green hydrogen was widely endorsed by Industry



Hydrogen GOs cover the whole generation pathway up to marketable product

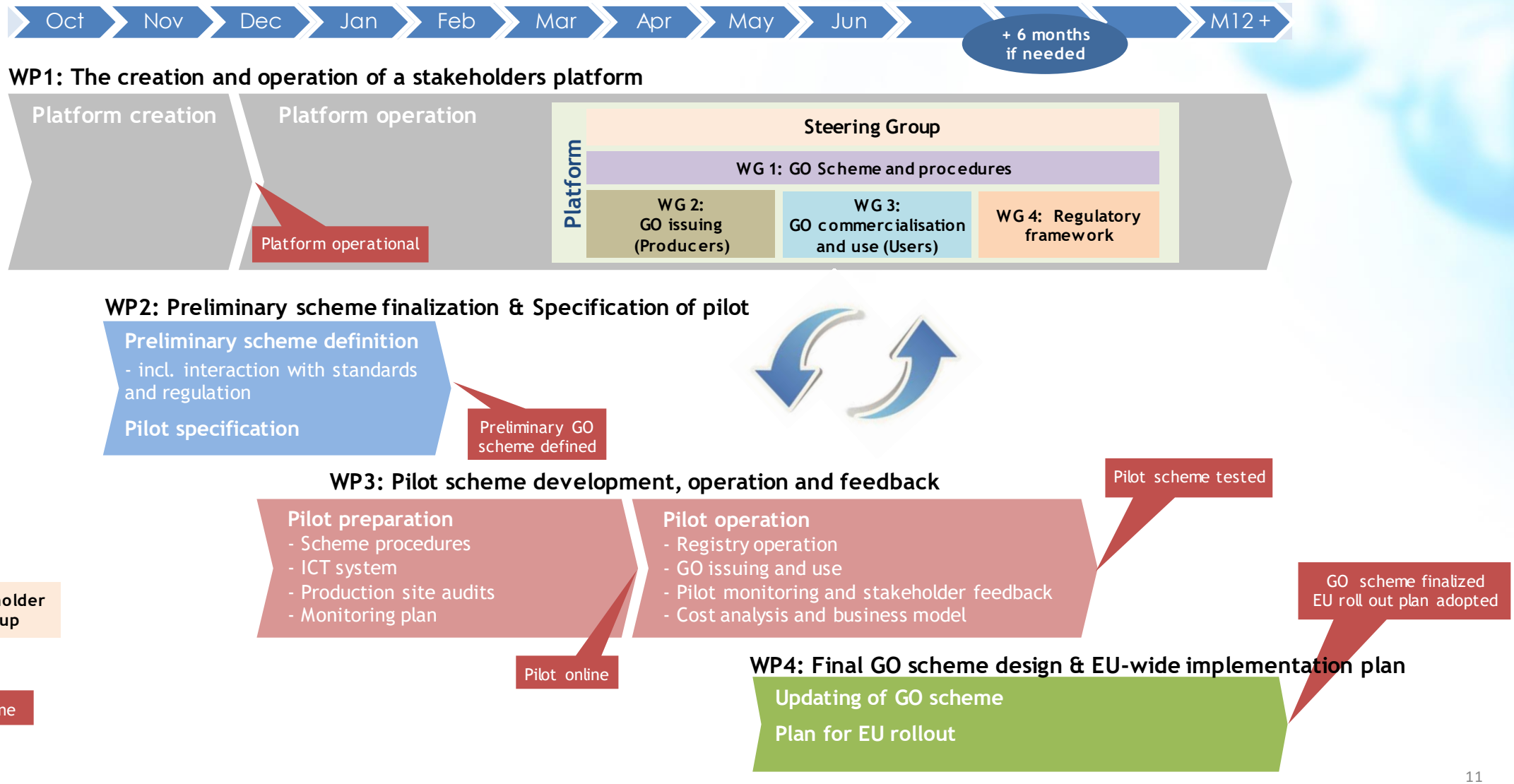


Renewable hydrogen will be as green as the energy used for its production



* Via GO or direct feedstock

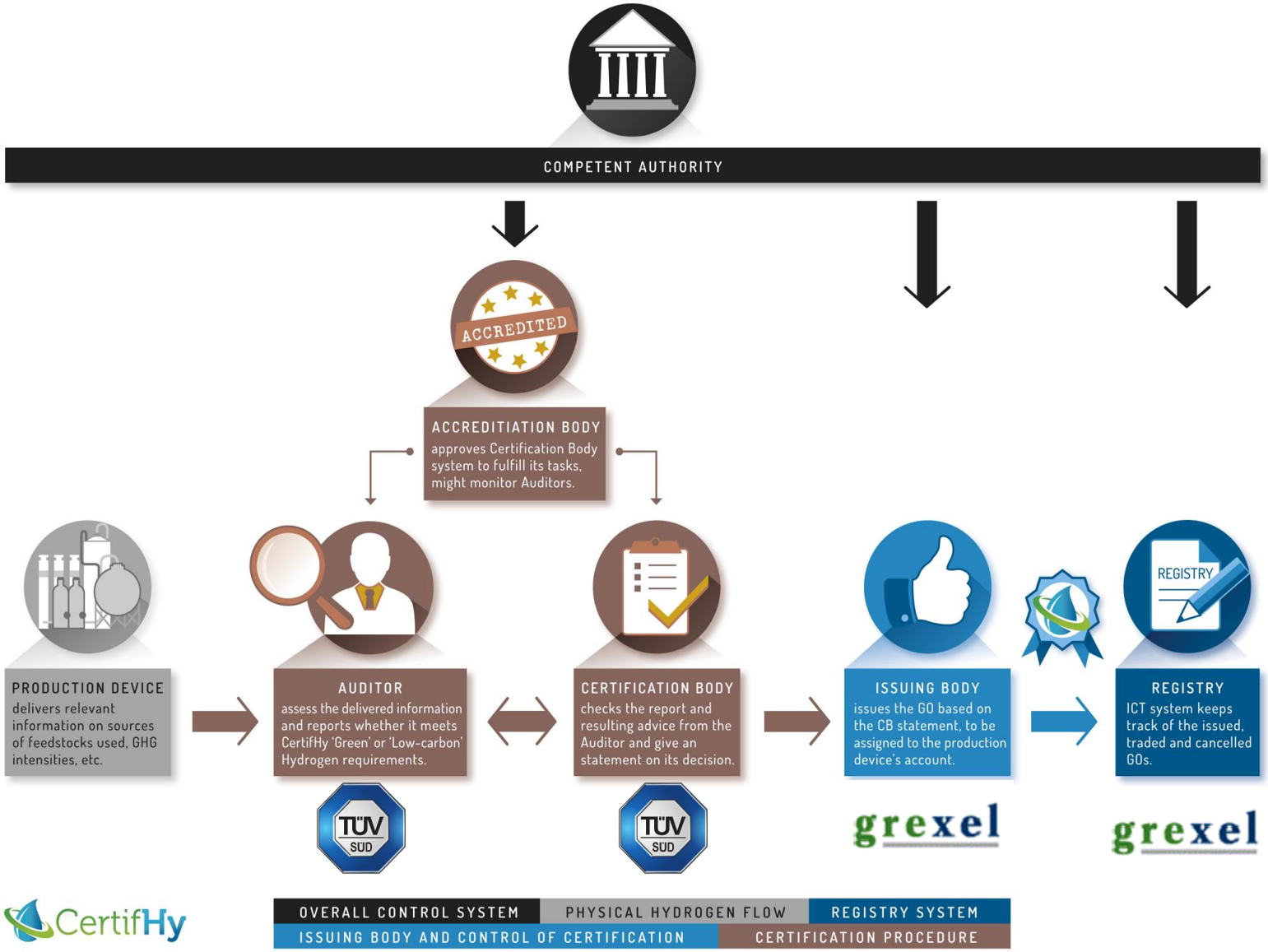
The scheme will be developed in interaction with Stakeholder Working Groups for consultation and approval



Steering Group, Working Group and Platform role and composition

	Stakeholder Platform	WG1: GO scheme and procedures	WG2: GO issuing (Producers)	WG 3: GO commercialisation and use (Users)	WG 4: Regulatory framework	Steering Group
Role	• Act as a discussion fora for stakeholder • Validate the overall scheme	• Define the scheme • Align the GO scheme with other existing standards	Define the requirements that will apply to the H2 production sites	Specify the features that are needed to address market needs in terms of GO product and commercialisation	Ensure alignment between GO scheme and the pertinent regulation, especially at EU level	• Take decisions regarding platform governance • Provide solutions to problems which WG cannot resolve
Composition	• All pertinent stakeholders	• GO scheme experts (including industry) • Standardisation experts	Operators of H2 production sites	All actors involved with the distribution and use of GOs (fleet operators, industrials from the automotive, steel, glass, etc sectors, industrial gas companies…)	• Public affairs experts of the stakeholder group • Representatives of the Commission	• Working Group Chairs and Co-chair • European institutions (DG Energy, DG Clima, DG Move, DG Environment, FCH 2 JU)

Key elements of the GO scheme procedures will be tested



- The Stakeholder Platform is expected to become the competent authority, in due time.
- TÜV SÜD will audit **4 pilot hydrogen production sites** & verify production batches.
- GREXEL will adapt an existing GO registry.
- GREXEL will issue and allow for trading of the associated GOs.
- Final customers will purchase the GOs.

Interested in joining the CertifHy Stakeholder Platform?

E-mail us @: certifhy@hinicio.com

For more information see: www.certifhy.eu

Q&A