



CertifHy– Developing a European Framework for the generation of guarantees of origin for green hydrogen

WP5: Implementation Roadmap

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Project co-finance by the FCH JU under FP7:



1. The momentum for implementation should be strengthened further
2. Remaining issues and open points need to be settled
3. The required GO infrastructure needs to be developed
4. Practical experience needs to be gained



Proposed actions:

1. Creation of an EU platform to drive the GO building and rollout process
 - Create a board of key stakeholders (joint public and private) to guide the roadmap execution
 2. Creation of a legal safeguard to relate consumer claims to the GO
 - Make sure a hydrogen GO scheme is anchored in e.g. the RED
 - Implement the CertifHy premium labels through a CEN standard
 3. Creation of EU-wide buy-in for the GO system and the CertifHy labels
 - EU-wide recognition of CertifHy as *the* platform for hydrogen GOs
 4. Create the opportunity for international trade in hydrogen GOs
 - Trade of hydrogen GOs through international grids, team up with EBA
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Proposed actions:

5. Decide on the registry structure: one central or various national ones
 - Come to a conclusion on EU versus national regs.
 6. Set up update procedure for the benchmark GHG intensities
 - Process for review and update of benchmarks
 7. Make a final decision on the residual mix, based on the pilots
 - Pilots (action 11) will provide relevant information on this point
 - Final decision before full roll-out of the GO scheme
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Proposed actions:

8. Identification of the issuing body as the key party in the scheme
 - Appointment of a hydrogen GO issuing body
9. Settle the information on the GO
 - Final GO information structure
10. Set-up of the ICT system and registry platform to implement the scheme
 - An operating ICT platform for Gos

Two stages for these actions:

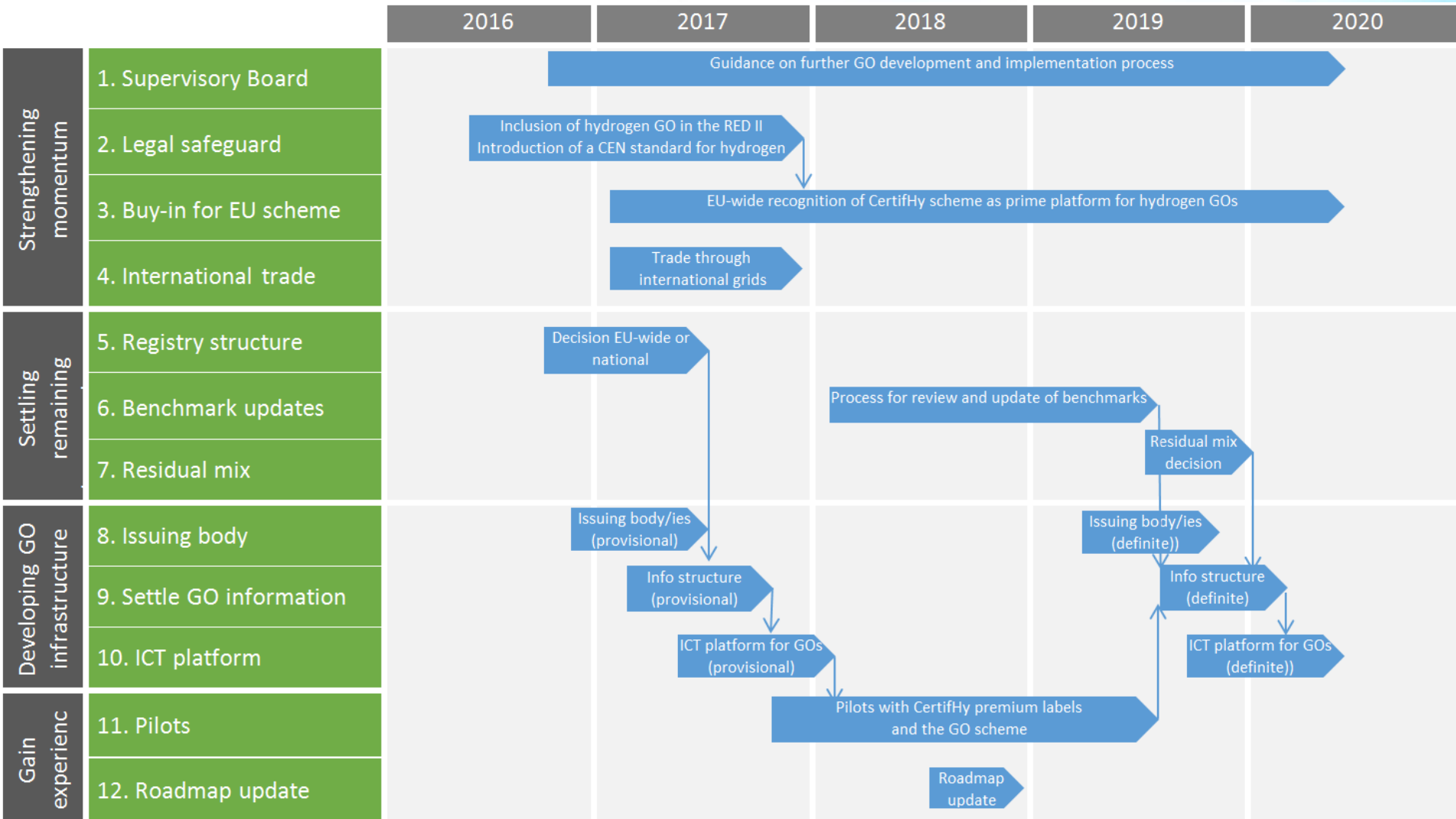
- Development of preliminary structure (for the pilots)
 - Development of the definitive structure (for the full roll-out)
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Proposed actions:

11. Set up pilots with a coalition of member states and industry participants
 - On the value of CertifHy premium certificated in practice
 - On the functioning of the GO scheme

12. Update the roadmap on the basis of experiences gained and external developments
 - On the basis of preliminary progress and external developments

Proposed timing



Action	Start	Completion	Involved parties	Key results to be delivered	
First challenge: Strengthening momentum					
1	Supervisory Board	Late 2016	2020, at scheme implementation	Policy makers (EU and MS), industry (full-chain), NGOs, GO&label experts	Guidance on the further GO development and implementation process
2	Legal safeguard	Mid- 2016	End 2017	CertifHy consortium, EC DG ENER and other relevant DGs	Inclusion of a hydrogen GO in the RED II
3	Buy-in for EU scheme	Early 2017	2020, and beyond	Supervisory Board, active role for all board members	EU-wide recognition of CertifHy scheme as the prime platform for hydrogen GOs
4	International trade	Early 2017	End 2017	EC DG ENER, Supervisory Board	Possibility to trade hydrogen GOs through international grids
Second challenge: Settling remaining issues and open points					
5	Registry structure	End 2016	Mid-2017	Supervisory Board	Decision on EU versus national registries
6	Benchmark updates	Early 2018	Mid-2019	Supervisory Board, issuing body	Process for review and update of benchmarks
7	Residual mix	Mid-2019	End-2019	Supervisory Board	Final decision on the approach on this matter, on the basis of pilot outcomes.
Third challenge: Developing required GO infrastructure					
8	Issuing body	End 2016 (p) Earl. 2019 (d)	Mid-2017 (p) End 2019 (d)	Supervisory Board, AIB	Appointment of a hydrogen GO issuing body
9	Settle GO information	Early 2017(p) Mid-2019 (d)	End 2017 (p) Early 2020 (d)	Issuing body, Supervisory Board	Final GO information structure
10	ICT platform	Mid-2017 (p) Late 2019 (d)	End 2017 (p) Mid-2020 (d)	Issuing body, Supervisory Board	An operating ICT platform for GOs
Fourth challenge: Gaining practical experience					
11	Pilots	End 2017	Mid-2019	Supervisory Board, participants	Lessons on label value, GO scheme, res. mix
12	Roadmap update	Mid-2018	End 2018	Supervisory Board	Actualisation of the roadmap

THANK YOU FOR YOUR ATTENTION !

Contact us:



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1. CertifHy: Key results	
11.00	Opening
11.15	CertifHy Project: Developing a European Framework for the generation of guarantees of origin for green hydrogen
12.15	Lunch and networking break
2. The policy dimension	
13.15	The role of Guarantee of Origin in further developing of the hydrogen economy
13.30	Guarantees of Origin for Sustainable Hydrogen and the new Renewable Energy Directive
13.45	Sustainable hydrogen: what does the European Parliament say?
14.00	GO schemes: an NGO's view

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3. The perspective of hydrogen supplier and users

14.15	Hydrogen – Transporting the Future
14.30	Importance of a well-designed hydrogen certification mechanism for the take-off of the hydrogen economy
14.45	Premium hydrogen as a prerequisite for the take-off of fuel cell vehicles
15.00	Short break

4. Implementing the scheme

15.15	Panel discussion: How to implement the premium hydrogen GO scheme: Taking up the CertifHy roadmap
16.00	Follow-up to the CertifHy project: State of affairs, endorsements statements, next steps
16.30	Closure

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- Endorsement letters
- Next Steps:
 - Standardisation
 - Set-up of Stakeholder Platform
 - Set-up of Pilots

	Association of Issuing Bodies	Air Products	Akzo Nobel	Areva H2gen	Air Liquide	BMW	CCS Global Group	Clean Energy Partnership	Colruyt	European Biogas Association	EDF	European Hydrogen Association	EkoEnergy	Hydrogenics	Hygear
Definitions of the two types of premium hydrogen	x	x	x	x	x	x	x	x	x	x	x	x		(x)	x
Guidelines for the setup of the GO scheme	x	x	x	x	x	x	x	x	x	x	x	x		x	x
Roadmap for the implementation	x	x	x	x	x	x	x	x	x	x	x	x		x	x
Participation of Stakeholder Platform	x			x	x	x		x	x	x	x	x		x	x
Set up pilots in which the GOs scheme can be tested	x	x	x	x	x				x			x		x	x
Manage / Build ICT system and registry platform	x														
Act as Issuing body	x														
Creation of EU-wide buy-in for the GO scheme and the CertifHy labels	x			x		x		x			x			x	x

	Hychico	H2 Mobility Germany	ITM Power	Linde	Machiels	Netherlands Standardization Institute NEN	NG	Polito	Symbio Fuel Cell	Teesing	Toyota	UCL	Uniper	Verbund	WaterstofNet	
Definitions of the two types of premium hydrogen	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Guidelines for the setup of the GO scheme	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Roadmap for the implementation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Participation of Stakeholder Platform			x	x		x		x		x			x	x		x
Set up pilots in which the GOs scheme can be tested	x	x	x		x	x		x					x	x		x
Manage / Build ICT system and registry platform						x								x		
Act as Issuing body						x		x								
Creation of EU-wide buy-in for the GO scheme and the CertifHy labels					x		x				x			x		x

- **Benefits**
 - Adoption of uniform requirements through a consensus based process
 - Market acceptance
- **Proposed EN standards**
 - Definition of Green Hydrogen
 - GO template and content
 - Procedures :
 - Plant certification for participating to the GO scheme
 - Certification of a production batch for issuance of a GO
 - ...
- **Proposed plan**
in conjunction with Pilot Implementation of the GO scheme:
 - **Before Pilot:** Submission of new work item proposals, setting up of working group(s)
 - **During Pilot:** Development of standards
 - **Following Pilot:** Standards ready for full scale implementation of the GO scheme across Europe

- Set-up of Stakeholder Platform: discussions ongoing with FCH-JU
 - Set-up of Pilots:
 - Building of consortium / pilots - based on the letters of endorsement received
 - Defining funding mechanism:
 - AWP 2017 of FCH-JU?
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