Interreg
EUROPEAN UNION
North-West Europe
GenComm
European Regional Development Fund

Hydrogen: Getting the Green Light, Driving Europe's Green Recovery

1 July 2020

Interreg North-West Europe GenComm

European Regional Development Fund

AGENDA

10:00 - Introduction
Hydrogen the catalyst for generating energy secure communities
Paul McCormack Belfast Met

10:20 - Optimising H2-based energy models – using Decision Support Tools
Dr Rory Monaghan NUIG

10:40 - Informing and enabling communities - Community Hydrogen Forum CH2F
Ian Williamson HyEnergy

11:00 - The mobility capacity of Hydrogen - Wind to green H2
Mark Welsh Energia

11:20 - H2 the catalyst for economic growth – Marine H2 Mobility
Iain Percy Artemis Technologies

11:40 - Q&A session

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Maíread McGuinness First Vice President of the European Commission

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GenComm Animation

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Challenges - Poll

Which of these challenges pose the greatest barrier to Hydrogen getting the green light?

1. Cost
2. Government funding/subsidies
3. Legal barriers
4. Technical challenges
5. Public perception/safety
6. Supply chain and Co-ordination
7. Other?

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SMARTH2

The world is changed by your example, not by your opinion

Paulo Coelho

We are on the cusp of a new industrial revolution. Where growth will be driven by;

1. interaction between rapid technological innovation,
2. sustainable infrastructure investment
3. increased resource productivity.

GenComm Focus

- GENCOMM – GENerating energy secure COMMunities. Smart Hydrogen -Integrated renewable energy, generation & storage To develop a new model for exploiting remotely generated electricity from renewable sources to provide energy security for remote communities.

- GenComm project focuses on increasing the uptake of the local renewable sources by communities, mostly peripheral, in the NWE region, by implementing an energy model that relies on hydrogen as an energy carrier and is utilised to supply the main forms of energy demand: electricity, heating and transportation fuels.

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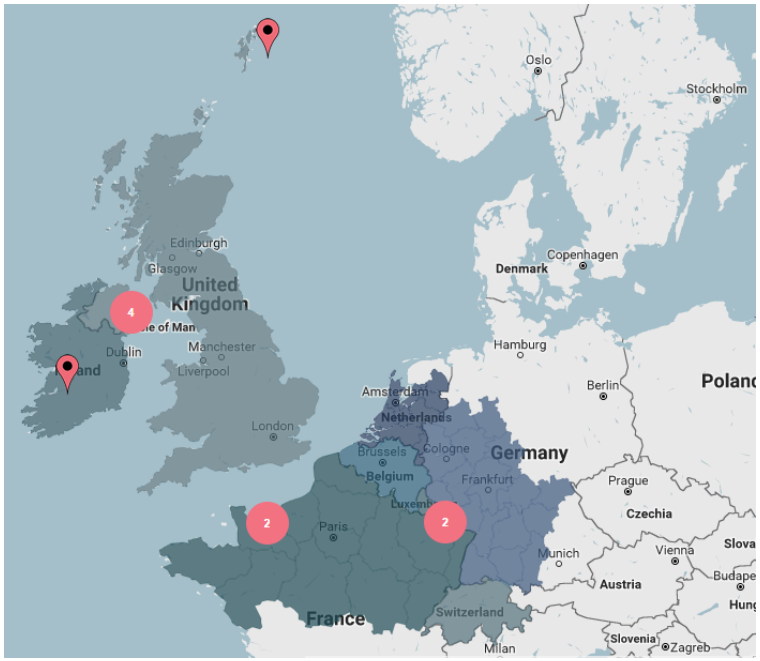
GenComm Partners

Belfast Metropolitan College	United Kingdom
Viridian Energy Supply Limited	United Kingdom
HyEnergy	United Kingdom
Pure Energy Centre	United Kingdom
National University of Ireland Galway	Ireland
IZES gGmbH	Germany
ENSICAEN	France
INSA Rouen Normandie	France
TK Renewables	United Kingdom
BURN Joint Research Group, Vrije Universiteit Brussel	Belgium



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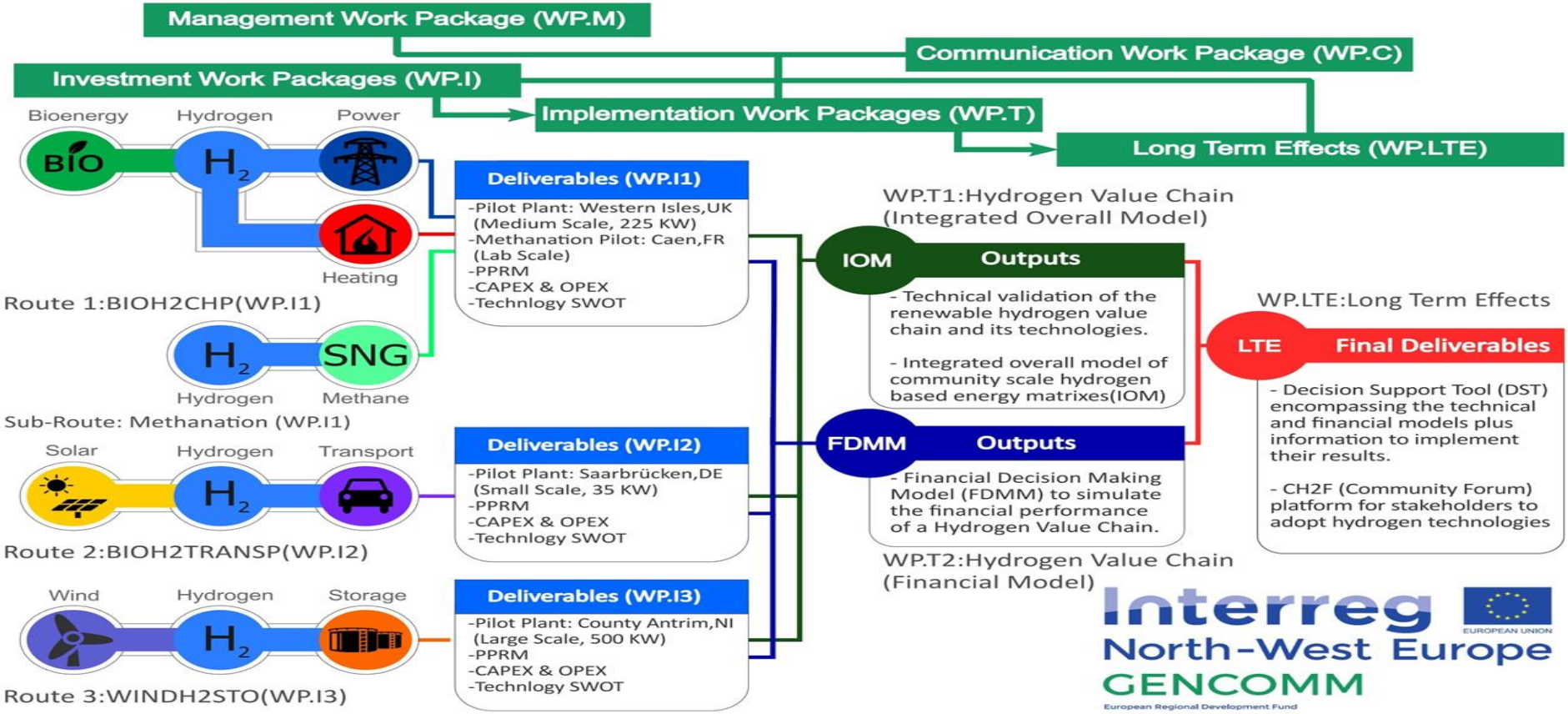
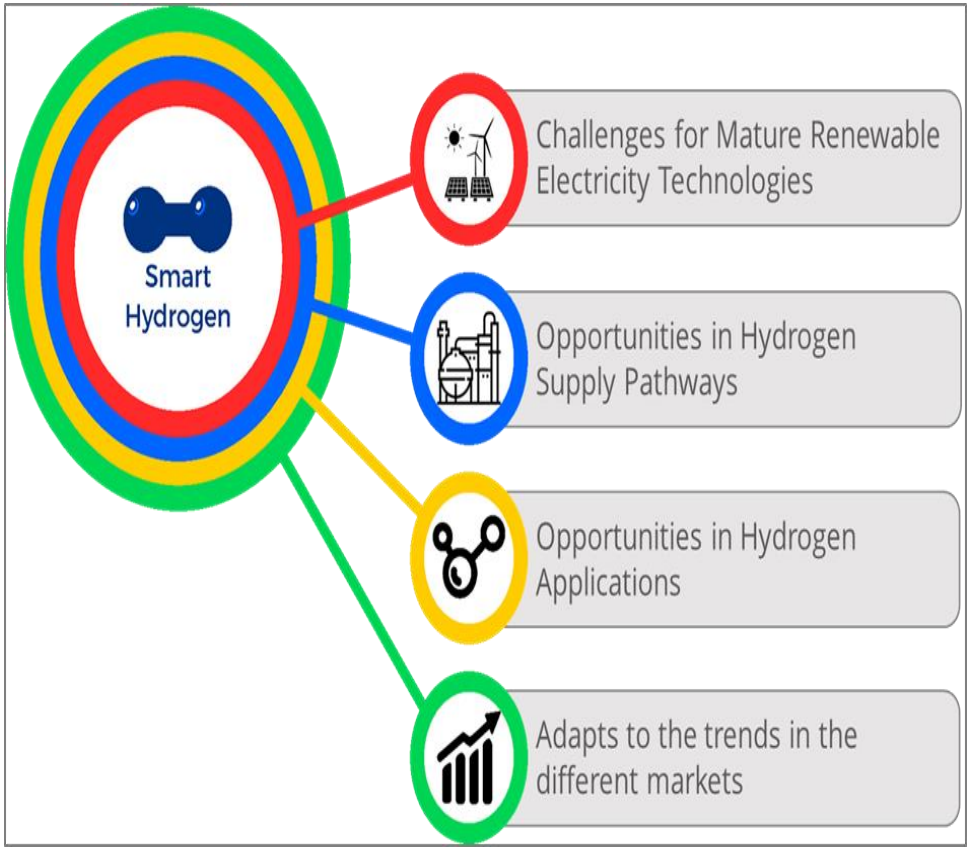
GenComm Value Chain



SMART H2

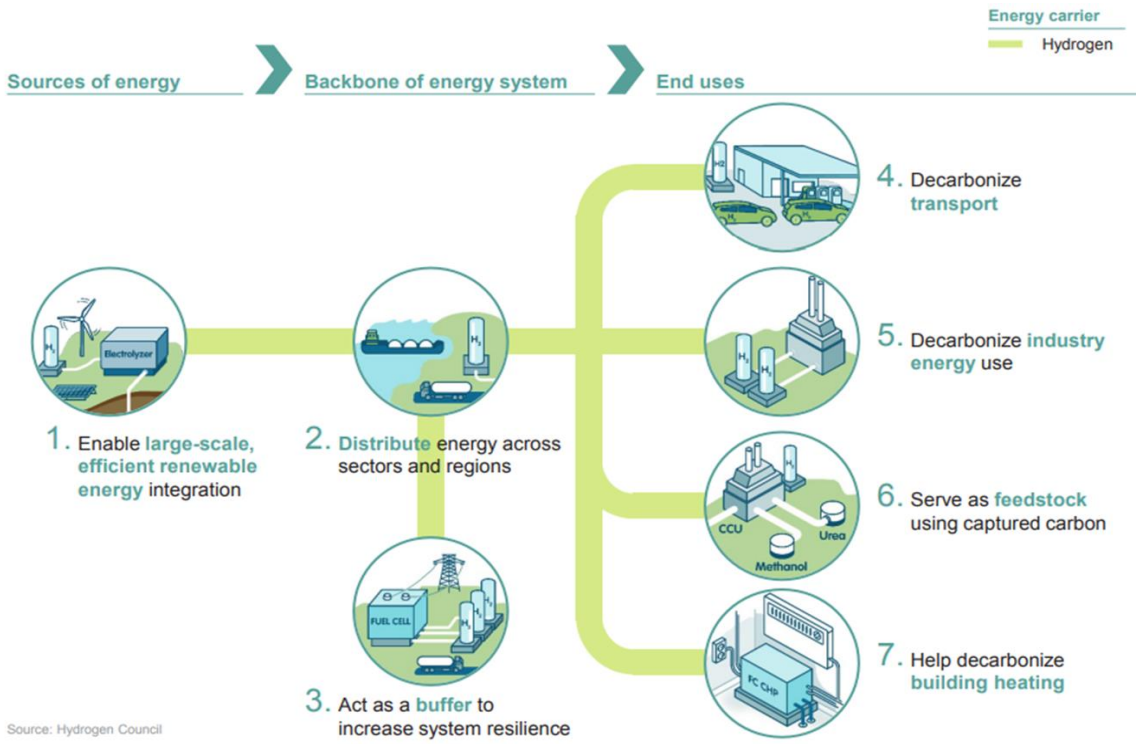
- Smart Hydrogen creating a hydrogen value chain that is optimal in technical performance and financial revenues.
- SMARTH2 sector coupling renewables - transport, industry & heat
- Involving entire supply chain and end users
- Versatile energy carrier for efficient renewable energy storage, transmission and utilisation.



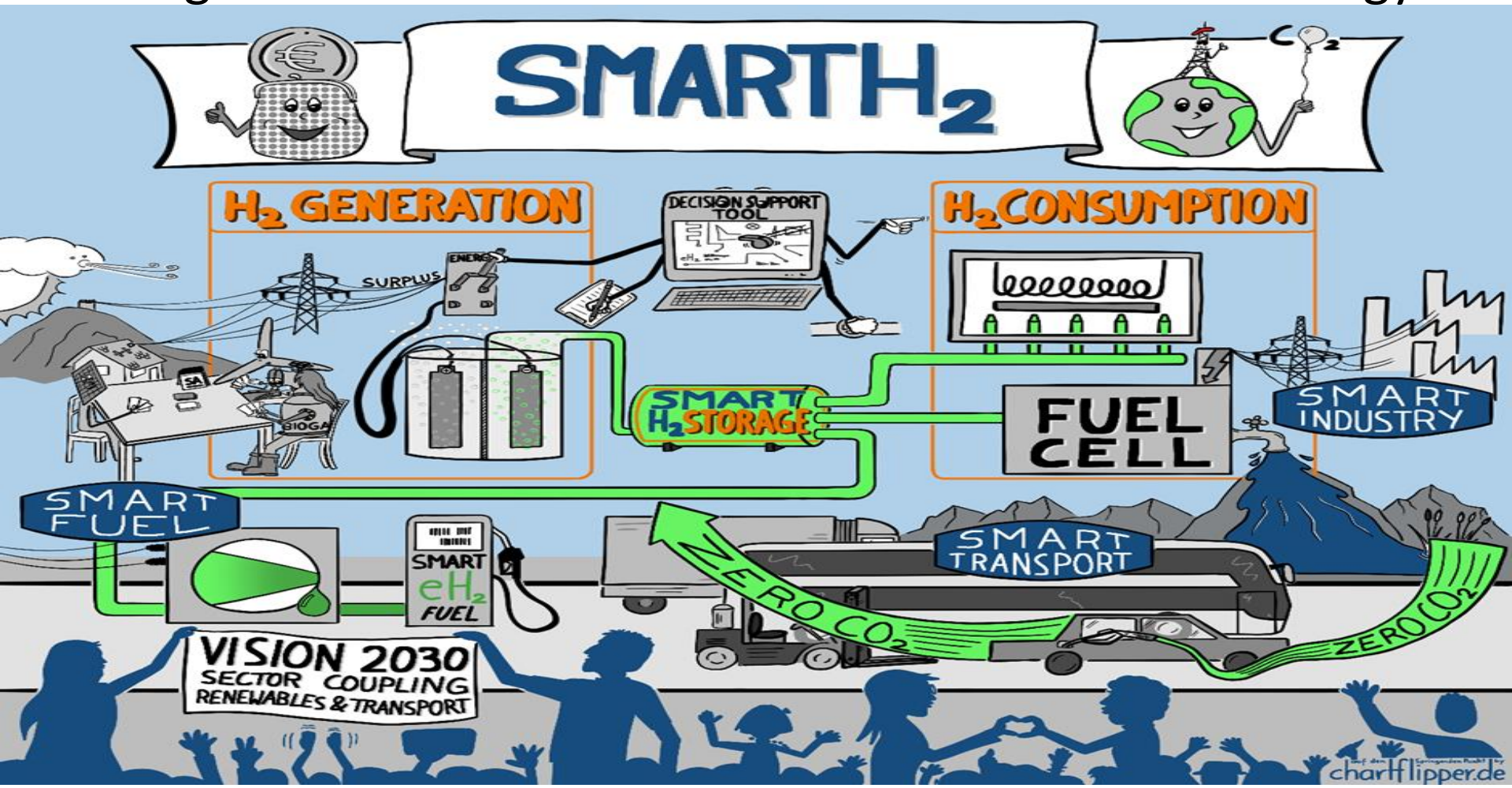
RENEWABLE POWER TO X - **P2X**

Green Hydrogen

- Power to Mobility **P2TM**
- Power to Industry **P2I**
- Power to Heat **P2H**
  - Power to Gas Grid Injection **P2G**



Fuelling the Just Transition – The Role of Non-Carbon Energy



KEY TAKE AWAYS

1. We can change the current dominant economic paradigm where energy production is a secondary product of the economy and instead make it a primary driver of the economy
2. ?
3. ?
4. ?

Polls at the end

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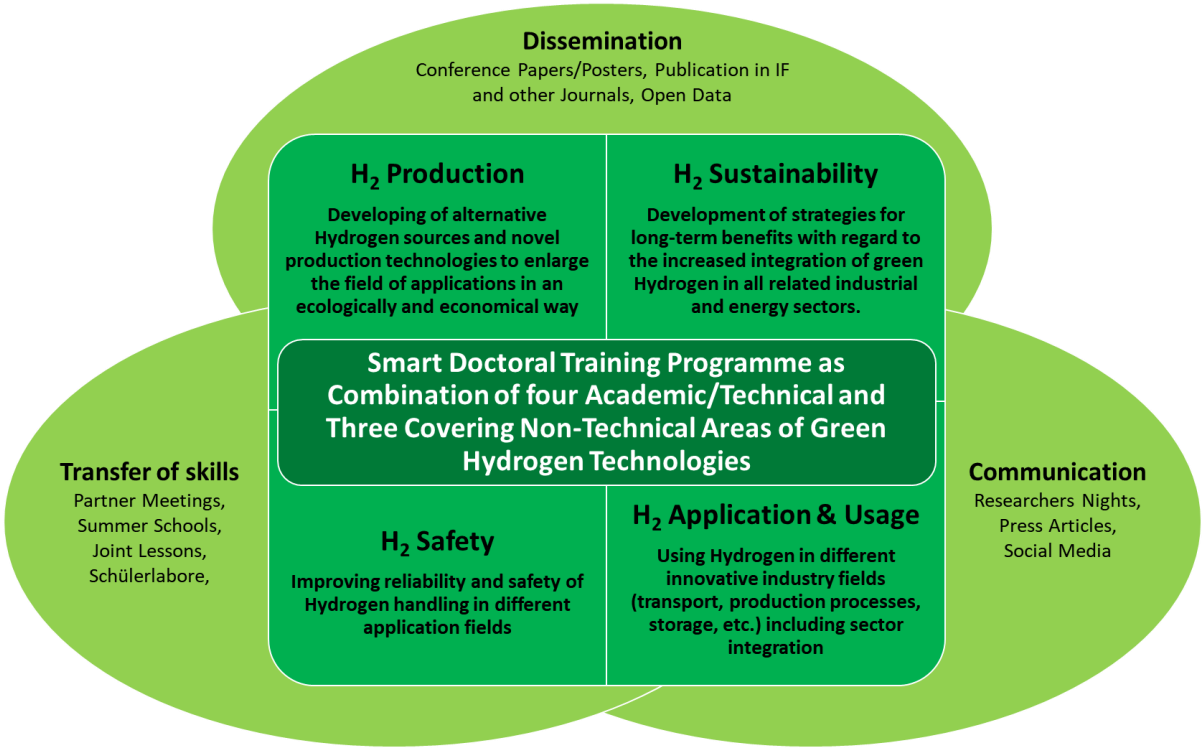
Speakers

Webinar Series **HAZEL**

- **H**ydrogen en**A**bled **Z**ero **E**missions supp**L**y chains



Webinar CONCLUSION

In order to achieve successful energy transition to renewables in Europe we must look to achieving full commercial opportunity for renewable energy. In order to achieve this we have to ensure commercial flexibility in sector coupling renewable energy. The use of SMART H2 as an energy carrier to achieve this goal is crucial.

- Part of the wider European energy solution demonstrating Green H2 in the P2X equation
- Helping shape the energy future and leading the new energy revolution.
- Exploring the versatility of hydrogen as an energy vector
- Demonstrating how Hydrogen can play important role to increase energy security and resilience in renewable-rich, energy-remote communities.

In Conclusion

- GenComm is part of the wider NWE energy solution
- We are all part of the new energy revolution
- We are helping shape the energy future

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