

# GenComm - Pioneering the New Energy Model

Sometimes you cant wait on the green, you have to have to go on orange!



# North West Europe's Energy Challenges

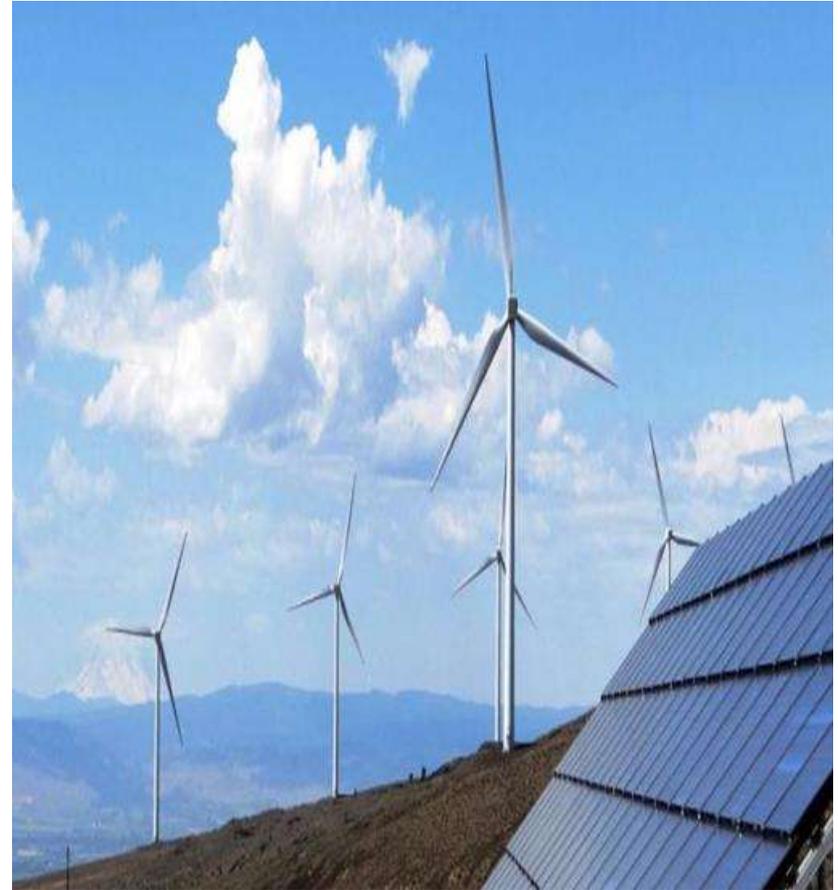
- NWE Communities, especially in remote areas, face multiple challenges to become energy secure and sustainable.
- Growth in electricity from renewable sources is stalling due to intermittency, grid restrictions, curtailment, and high costs.
- Sustainable energy to supply the transport sector and heating demand are even further underexploited.
- The current energy model for Europe isn't fit for purpose and must be realigned to meet need.

# GenComm Project Aims

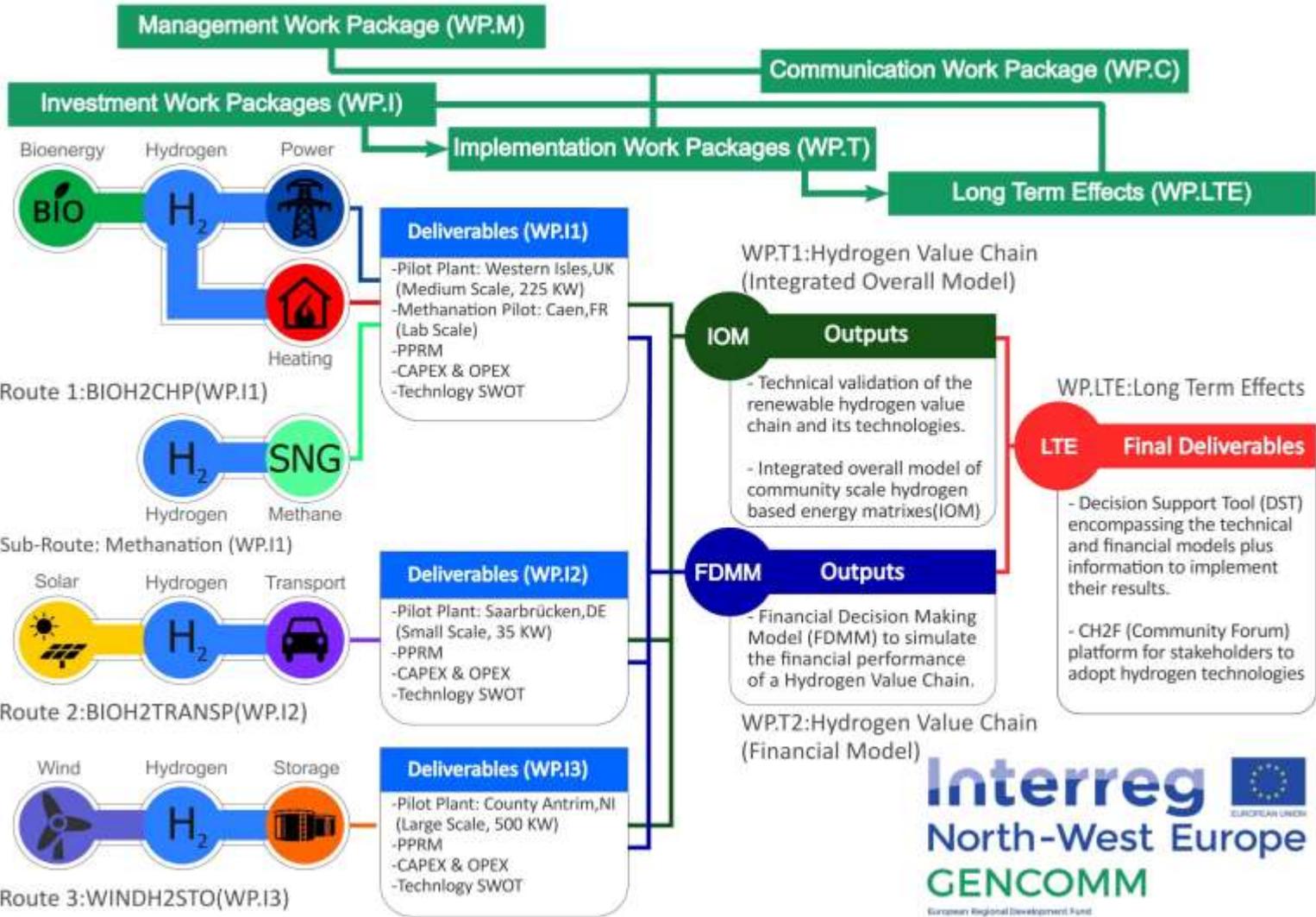
- GENCOMM will address these energy issues by developing a sustainable, renewable community-scaled, hydrogen (H<sub>2</sub>)-based, energy model based on the results of 3 pilot plants that will use local renewable sources to supply electricity, heating and transportation fuels.
- GENCOMM aims to reverse the current situation in which communities meet 75-80% of their energy needs from non-renewable sources.
- The main output of the project is an H<sub>2</sub>-based energy model. The second output is the adaptation of the model to a Decision Support Tool (DST), allowing communities to project and implement their own H<sub>2</sub>-based energy matrix.

# GenComm Project Objectives

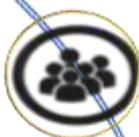
- GENCOMM will technically and financially validate and model the renewable H2 value chain and adapt it to a Decision Support Tool (DST) that leads NWE communities into sustainable, local and autonomous energy matrixes.
- The DST is directed to community energy stakeholders (utilities, policy-makers and private firms in the energy sector), as the key agents to implement the proposed matrix.



# GenComm Value Chain



# GenComm Community sustainability



Improve living and working conditions in smaller communities, by offering energy independency.



Keep smaller communities connected and better equipped to compete with larger urban communities.



Help address EU Cohesion by reducing disparities between the urban and more rural communities,



Enable investment in communities



Empower smaller communities

# Hydrogen as an Energy vector

- Hydrogen is the single most important remaining question in the energy transition
- “Cost competitive hydrogen from renewables makes full decarbonisation possible through power-to-gas and power-to-liquids.” Chris Goodall February 2019
- North West Europe is rising to meet the Energy Challenge: we are currently in midst of a Transition to a New Energy Model

# Green H2 the future - €

- Hydrogen produced using renewable electricity is “already cost competitive” in niche applications, and that it will match industrial-scale alternatives by 2030.
- Hydrogen produced using wind power in Germany and in parts of the USA is already cost-competitive for small- and medium-scale users of the gas.
- Green H2 will become competitive due to the falling cost of wind energy and the electrolyser technologies used to convert it to hydrogen.
- Green H2 is the catalyst for a low carbon economy

# Changing the energy model is a global challenge

- Investment by the world's major industrial countries to enhance energy transition toward a sustainable and fossil fuel-independent energy mix is underway
- The change is inevitable, it's already happening and those are the first to learn to adapt will lead the change and be able to export their ideas and products to the rest.
- The energy industry will change gradually toward renewable energy and the transition period will be determined to a large degree by both public and private investments made in these energy sources.

# 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