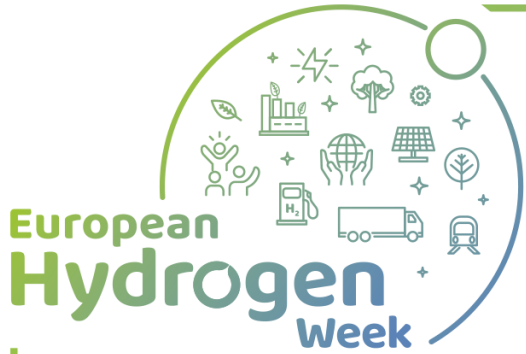


H₂Region EMSLAND



#PRD2020
#CleanHydrogen

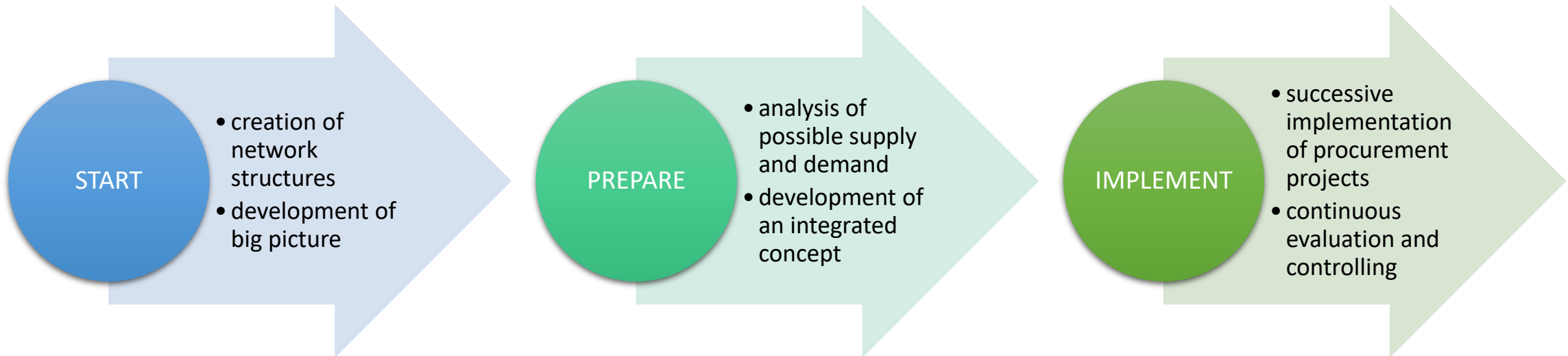


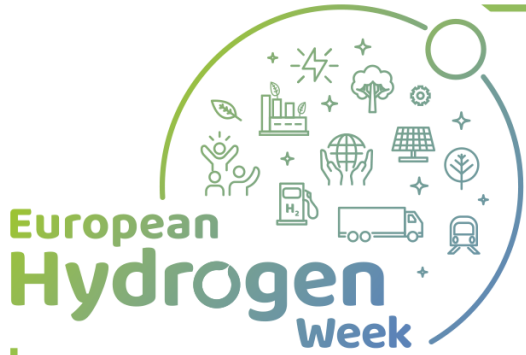


H₂-Region Emsland



→ From idea to implementation

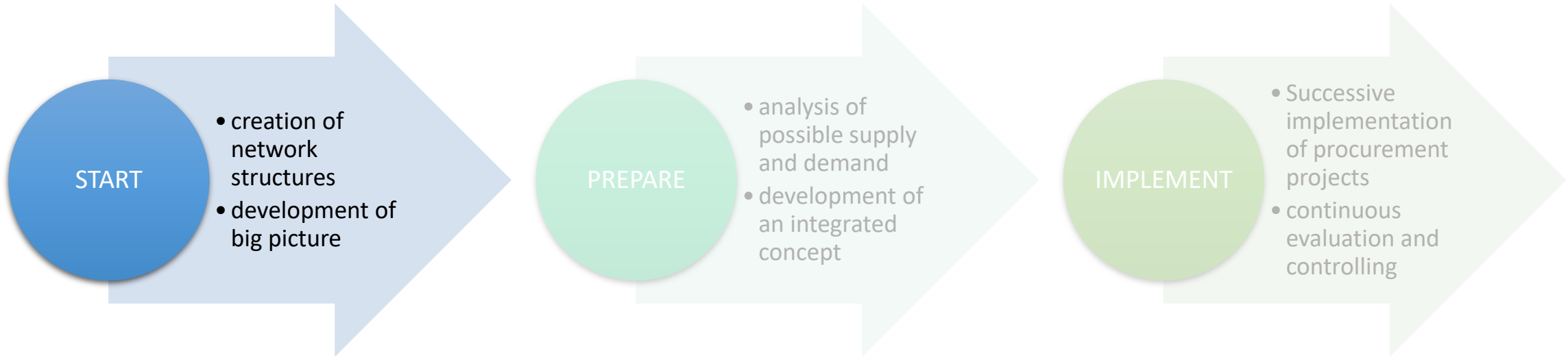


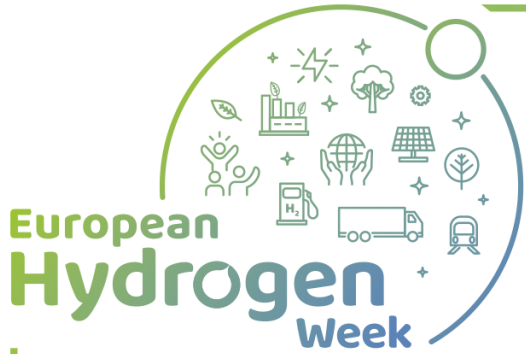


H₂-Region Emsland

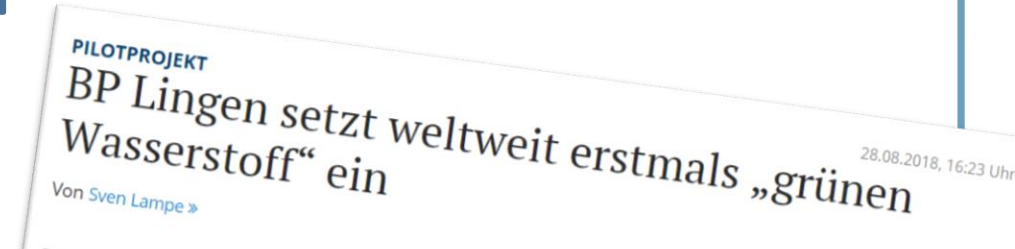


→ Start from scratch





The companies act & the press is interested



„grünen Wasserstoff“ zur Produktion von Kraftstoff. ... gezeigt werden, dass der Einsatz erneuerbarer ... ist. Geliefert wird der Wasserstoff von Audi



Werlte. Ein neues Projekt steht bei der „Power-to-Gas“-Anlage in Werlte an. Dort soll neben dem synthetischen E-Gas (CNG) künftig auch Flüssigerdgas (LNG) produziert werden.



Werlte. Im Emsland weht eine starke Brise. Diesen Umstand machen sich die zahlreichen Windparks zunutze und wandeln Windenergie in Strom um. Doch was passiert eigentlich, wenn zu besonders stürmischen Zeiten elektrische Energie schlichtweg überproduziert wird, die nicht gespeichert werden kann? Ein Pilotprojekt zur Lösung dieser Frage unterhält seit einigen Monaten der Autohersteller Audi in Werlte. Dort befindet sich die weltweit erste Anlage, die Methan umwandelt.

wollen bis 2025 und Energiemarkt ganz Europa.

ehnten in fast allen zusammengewachsen, allerdings nicht: beneinander und dest auf regionaler en wollen das ändern et. SEREH steht für „SmartEnergyR gie-Region“.

Varen und Arbeitnehmer offen steht, n ermöglichen. Die Ausgangslage habe atsförderer Jürgen Lenzing erläutert - g

Anzeige geschlossen von Google

Das teilte Betriebsleiter Tolga Akertek bei einem Besuch von Mitgliedern der Fraktion der Progressiven Allianz der sozialdemokraten im Europäischen Parlament mit. ch Kühlung verflüssigt werde, um asportieren zu könn

Projektleiter Dr.

RENEWABLE ENERGY
(ON- AND OFFSHORE)

ELECTROLYSIS

Audi

RWE

SIEMENS
Ingenuity for life

CEC
clean energy conversion

hybridge

REFINERY
LINGEN

bp

POWER-2-FUELS

POWER-2-MOBILITY

DC

SYNTH. FUELS

POWER-2-GAS

POWER-2-CHEMICALS

SYNTH. FEEDSTOCKS

MOBILITY

CONVERTER
380 KV

amprion

HEAT NETWORK

POWER-2-POWER

STADTWERKE
LINGEN

REFINERY SALZBERGEN
„REALLABOR“

H&R
CO₂NVERSION

INDUSTRY

AC

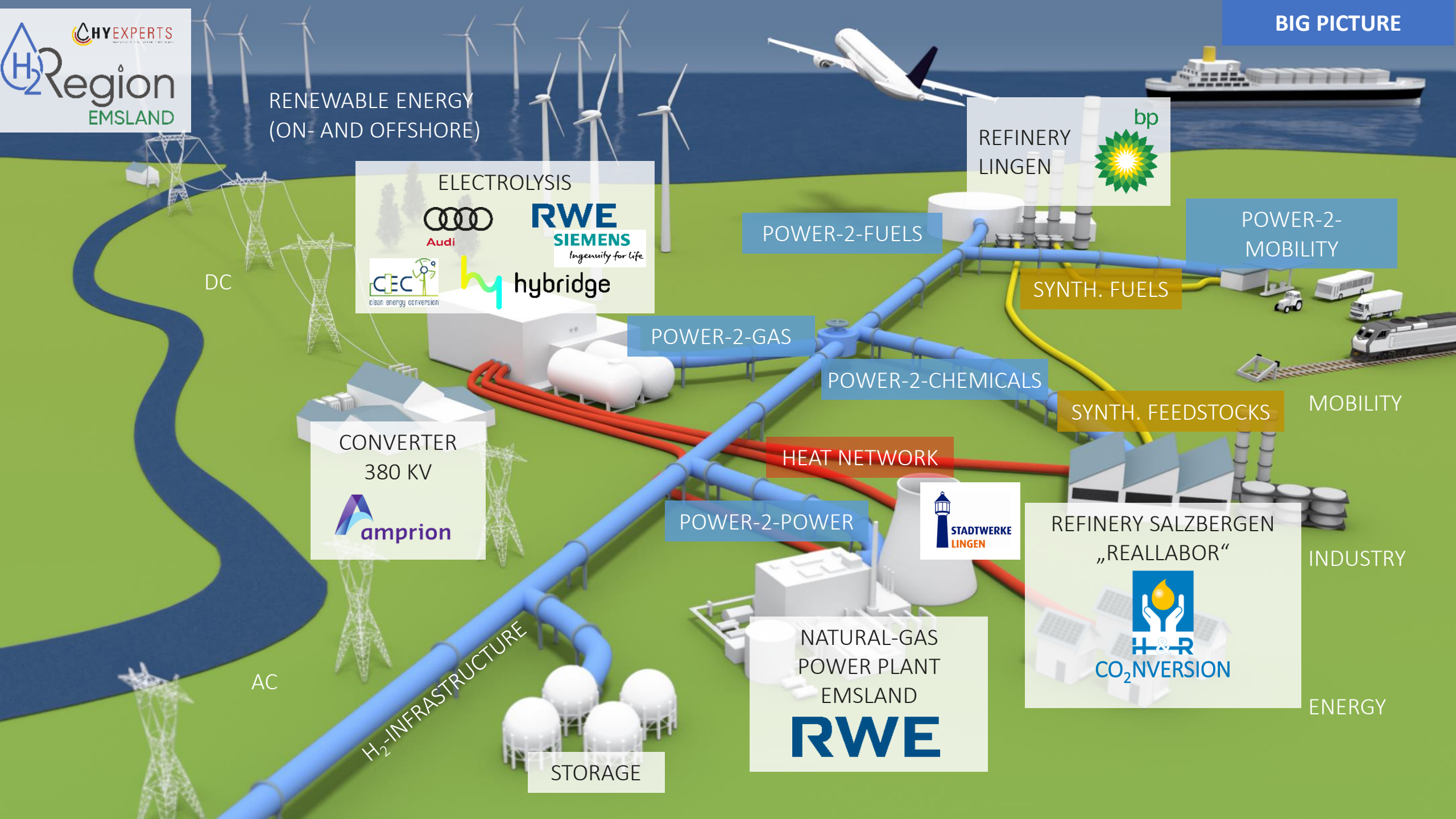
NATURAL-GAS
POWER PLANT
EMSLAND

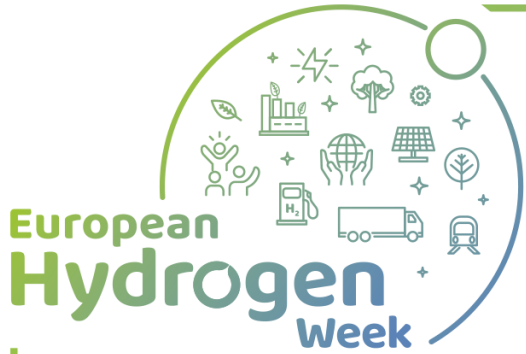
RWE

ENERGY

H₂-INFRASTRUCTURE

STORAGE

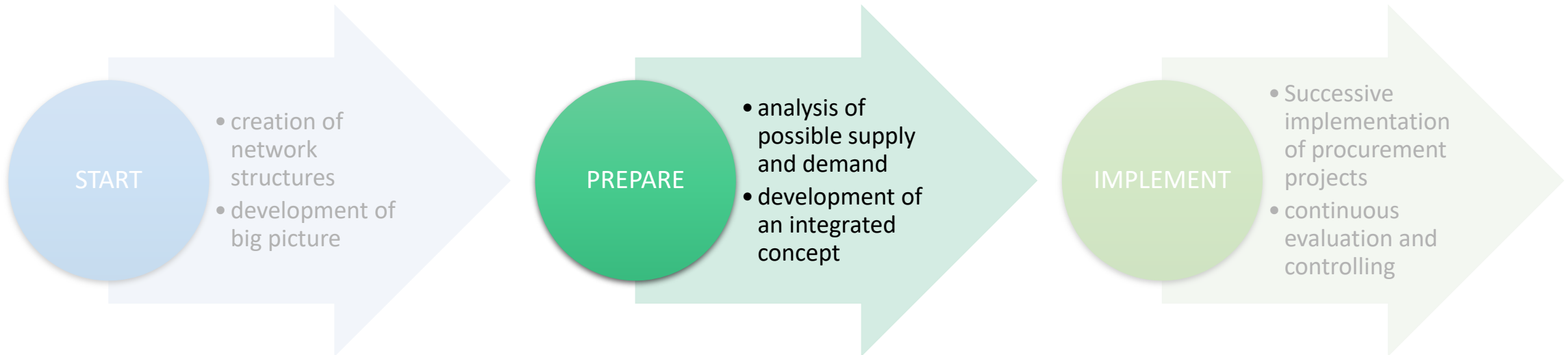


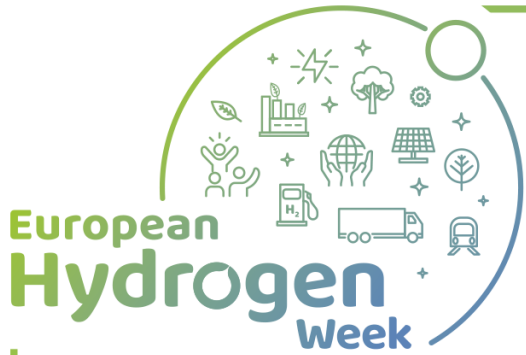


H₂-Region Emsland



→ Industrial approach and decentralized approaches





H₂-Region Emsland



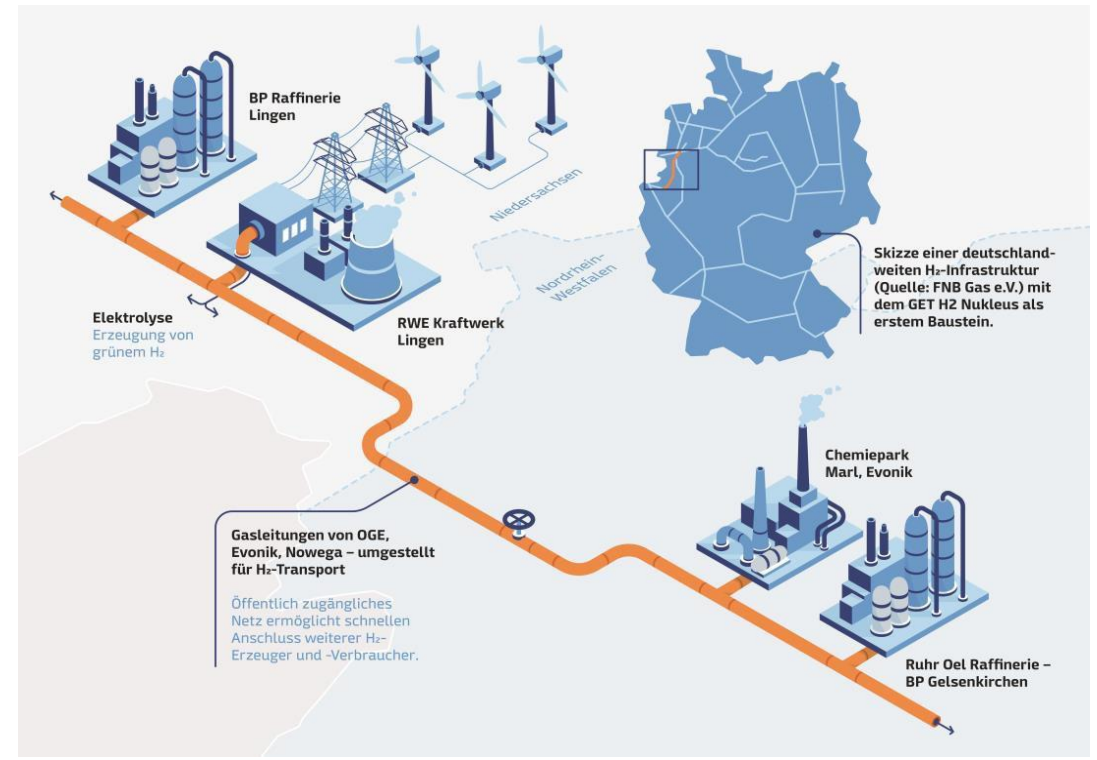
Industrial approach and decentralized approaches



Supply:
H₂-Production (scaleable to GW)

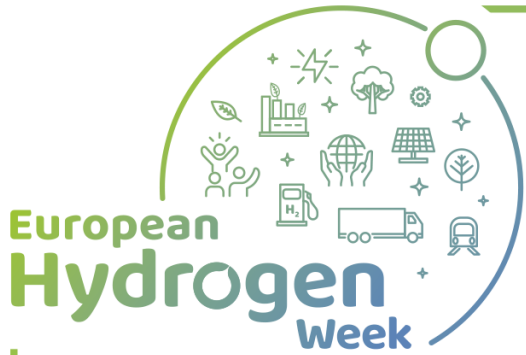
Distribution:
dedicated, 120 km H₂-Pipeline, open & non-discriminatory

Demand:
BP Lingen, Evonik Marl and BP Gelsenkirchen



#PRD2020
#CleanHydrogen





H₂-Region Emsland



→ Industrial approach and decentralized approaches

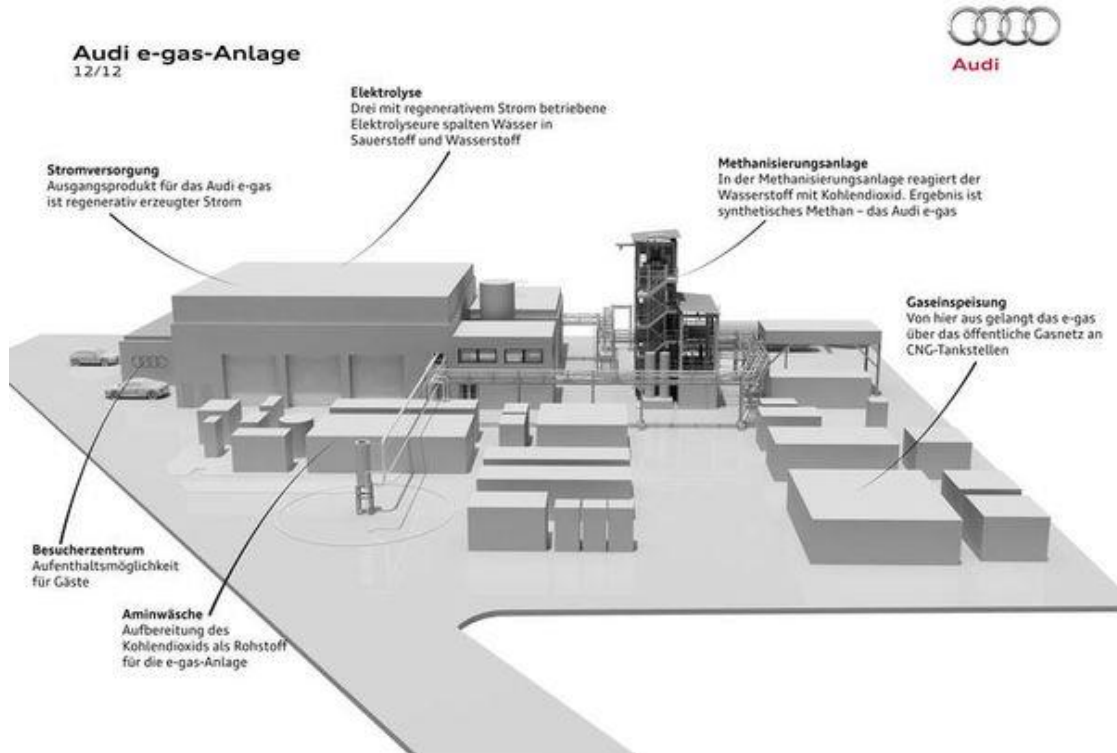


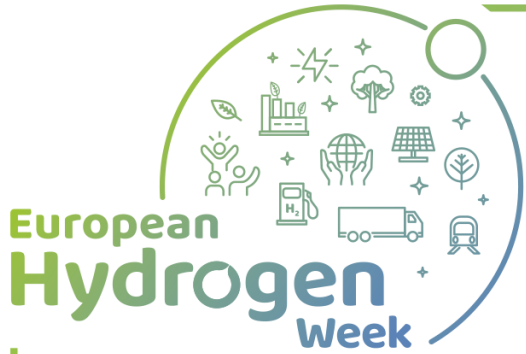
#PRD2020
#CleanHydrogen



H₂-Region Emsland

→ Industrial approach and decentralized approaches





H₂-Region Emsland



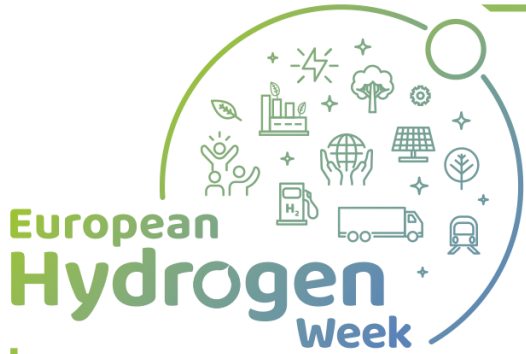
→ The HyExperts-Project

Overall Goal:

holistic & implementable overall concept for hydrogen applications in the region Emsland, especially in the mobility sector

Additional goals:

- Creating a sustainable network, flow of information and basis for project developments
- Implementation of small-scale projects (e.g. aquisition of single, hydrogen-driven vehicles)

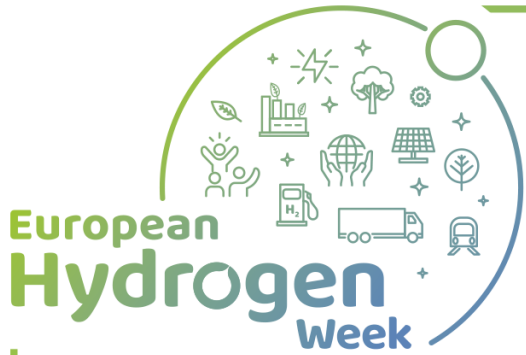


H₂-Region Emsland



→ HyExperts: project phases





H₂-Region Emsland



→ HyExperts: Partners

IKEM

RWE

SIEMENS
Ingenuity for life

MARIKO

Emsland
Emsland GmbH

BOLL Logistik
your international way

Audi

OGE

amprion

HOCHSCHULE OSNABRÜCK
UNIVERSITY OF APPLIED SCIENCES

it.emsland
IT-Dienstleistungsgesellschaft mbH Emsland

bp
HAREN (EMS)
...volle Kraft voraus

Emsland

hy **hybridge**



Wir transportieren Gas.
nowega

ROSEN
empowered by technology

STADTWERKE LINGEN

H&R

BERGMANN

TU Clausthal

emsachse
Ostfriesland, Emsland, Grafschaft Bentheim.

STADT LINGEN EMS

The Testing Institute
ISP

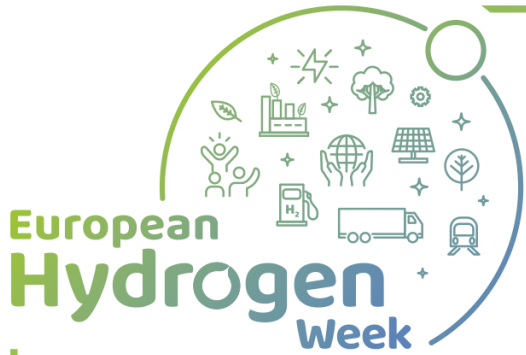
MEYER WERFT
PAPENBURG 1795

ENERTRAG
Eine Energie voraus

Wirtschaftsverband
EmsLand

#PRD2020
#CleanHydrogen

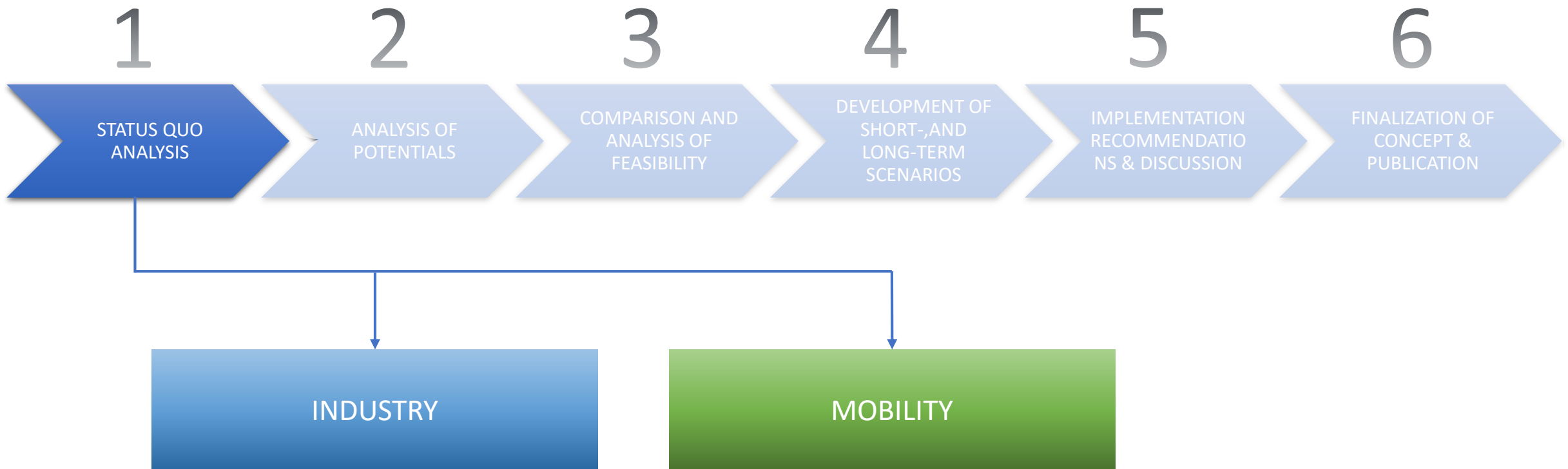


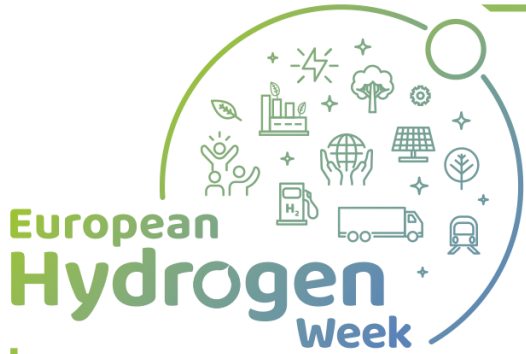


H₂-Region Emsland



➔ Status quo analysis





H₂-Region Emsland

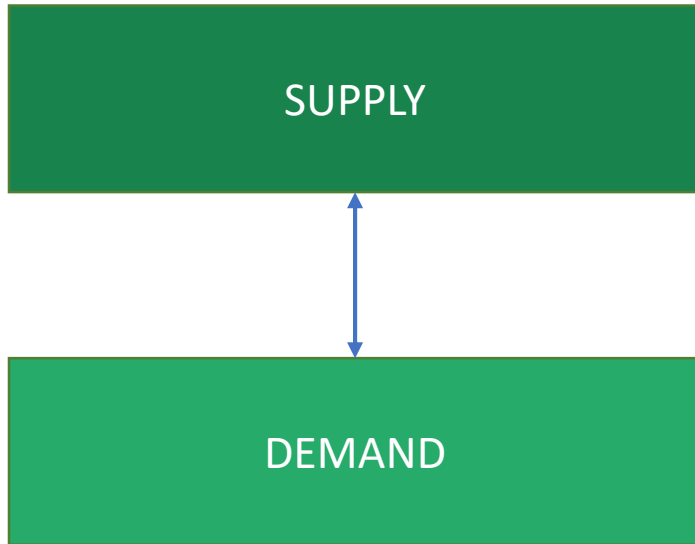


➔ Analysis of potentials

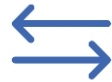


H₂-Region Emsland

➔ Analysis of potentials



H₂-PRODUCTION



H₂-DISTRIBUTION



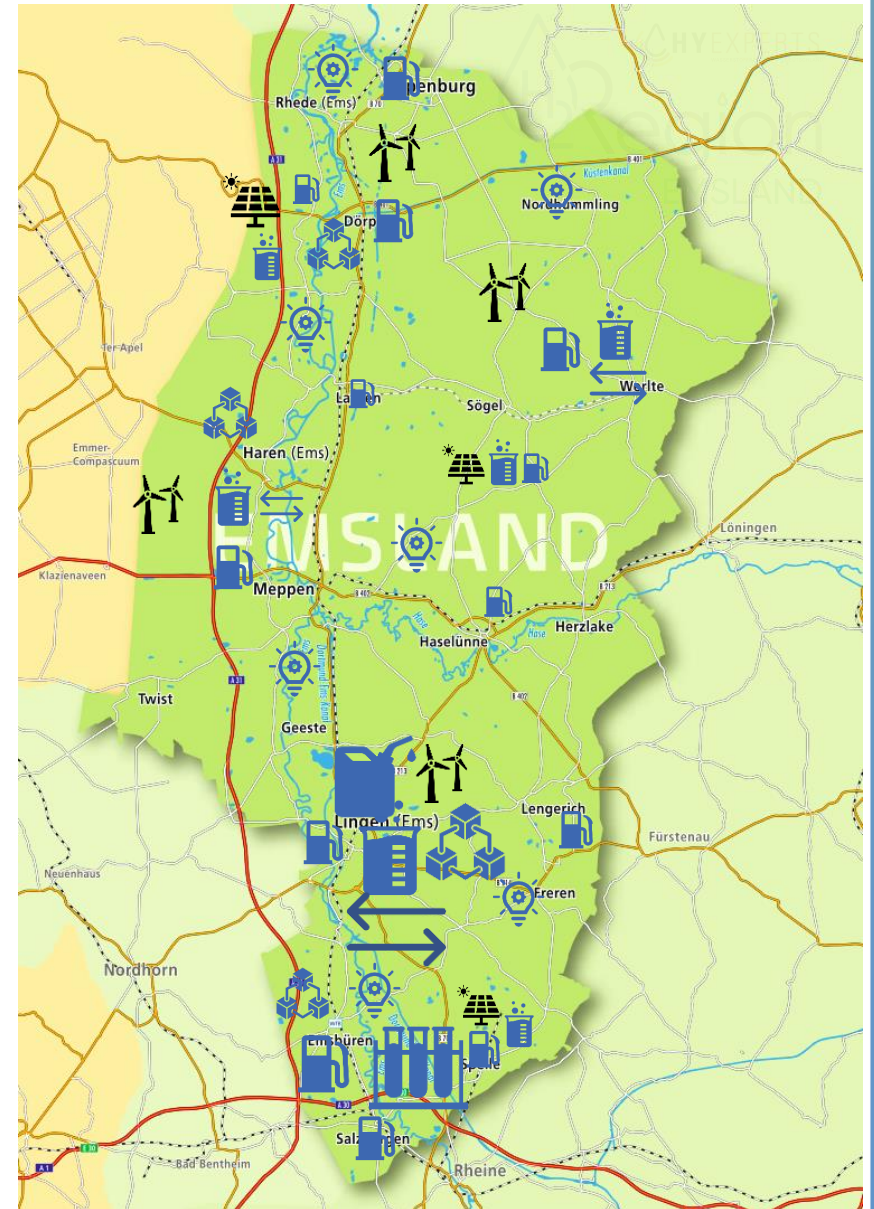
H₂-GAS STATIONS

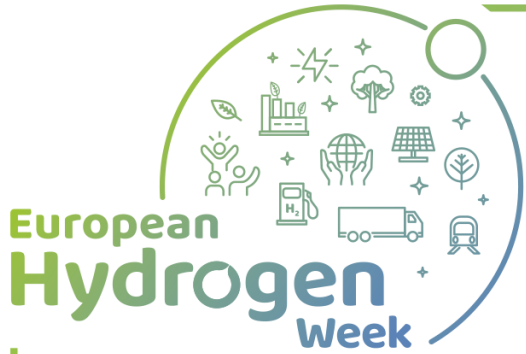


H₂-USAGE



H₂-KNOW-HOW



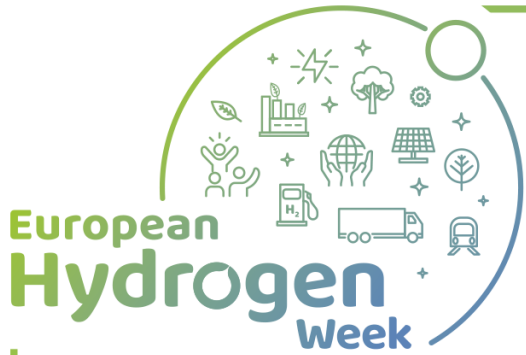


H₂-Region Emsland



→ In-depth analysis of feasibility & BCs

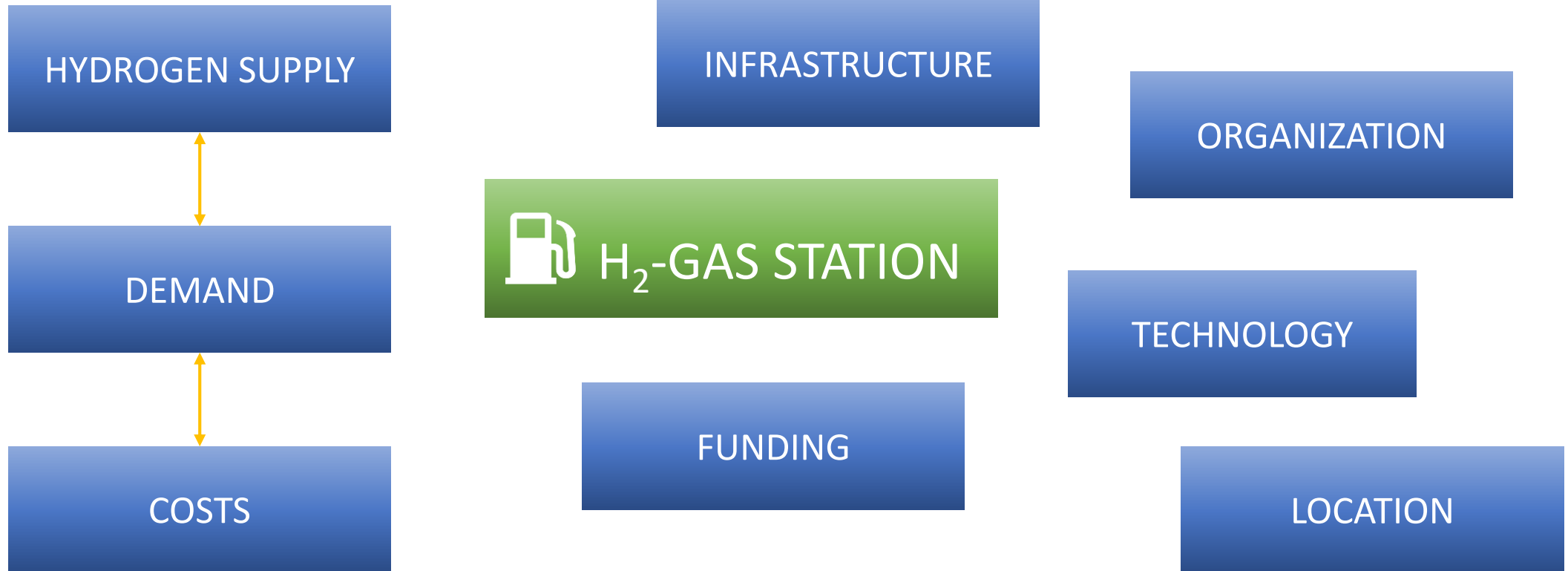


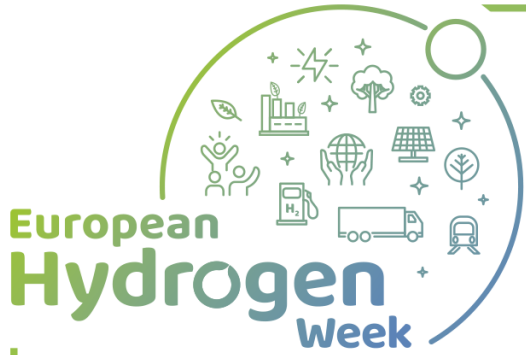


H₂-Region Emsland



➔ In-depth analysis of feasibility & BCs



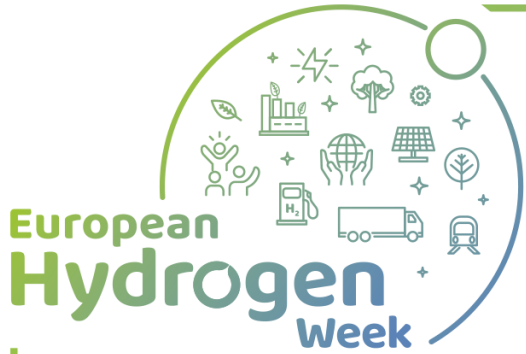


H₂-Region Emsland



→ Development of short-, and long-term scenarios



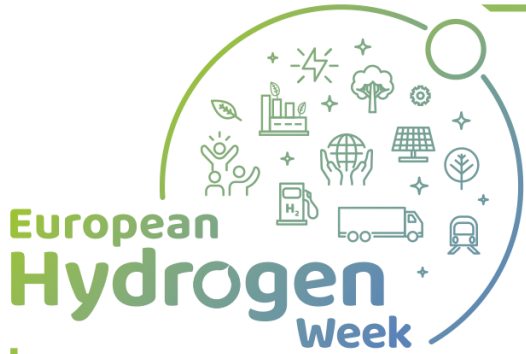


H₂-Region Emsland



→ Implementation, recommendations & discussion

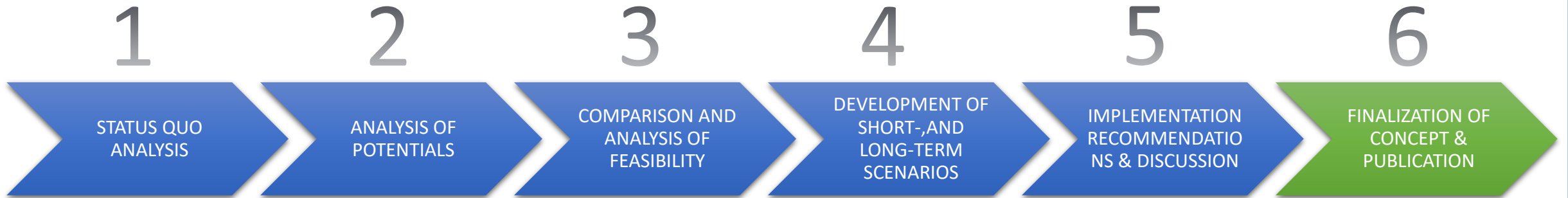


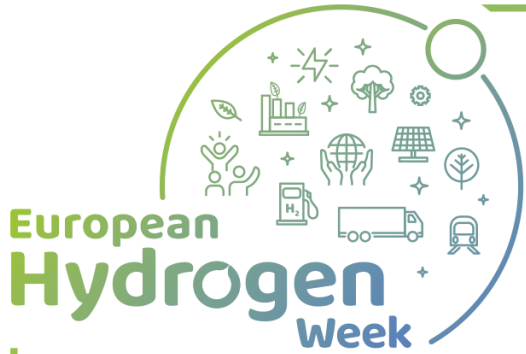


H₂-Region Emsland



→ Finalization of concept & publication

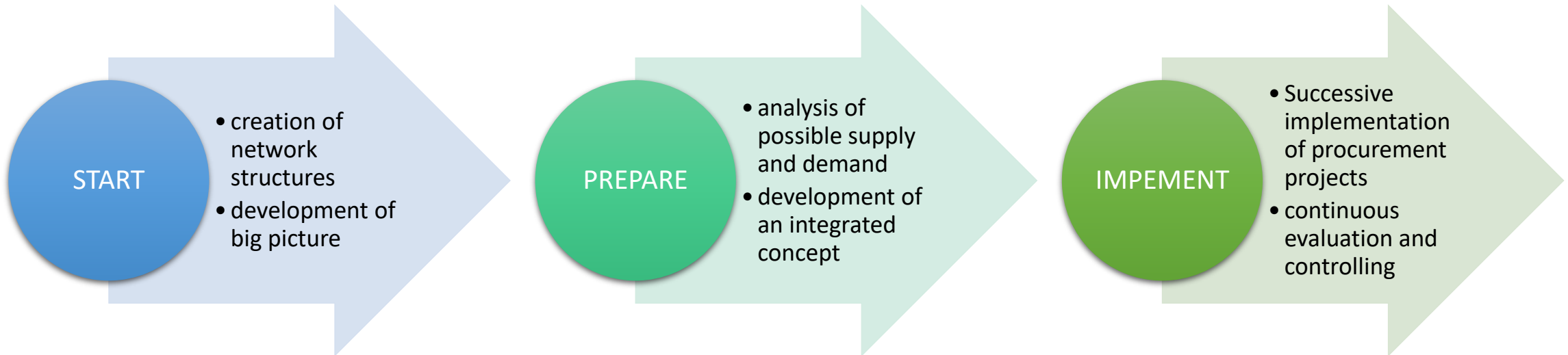


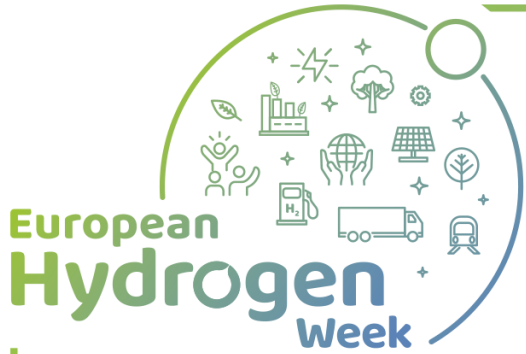


H₂-Region Emsland



➔ Becoming a HyPerformer





H₂-Region Emsland



Get in touch



Dr. Tim Husmann
H₂-Region Emsland | it.emsland

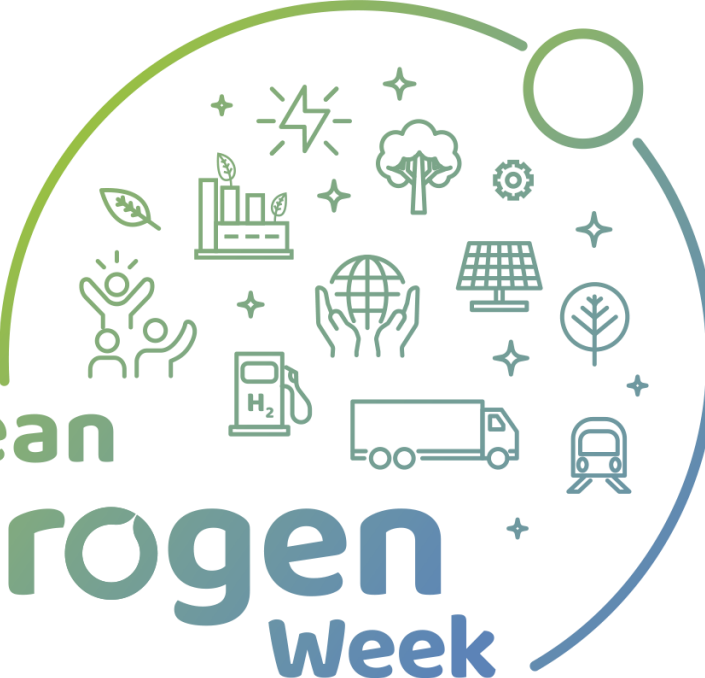
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husmann@it-emsland.de

www.h2-region-emsland.de



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#CleanHydrogen





**European
Hydrogen
Week**

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