

# Entwicklung Grüner Wasserstoffprojekte

## *Herausforderungen & Chancen*

Hynamics Deutschland GmbH

29.01.2025




# Hynamics is EDF's Hydrogen Business

**01** 100 % EDF SUBSIDIARY



**02** PRESENT IN 3 COUNTRIES



2019      2020      2023

**03** 150+ EMPLOYEES

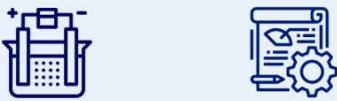


**04** THREE MARKETS




INDUSTRY      MOBILITY      E-FUELS

**05** MORE THAN 1 GW OF ELECTROLYSIS



3 MW in operation      60 projects in development

**06** COVER THE COMPLETE H2 PLANT LIFECYCLE



Development      Investment      Execution      Operation & Maintenance

# Green & Low-Carbon H2 & Derivatives – Onsite, Offsite or Imported

## Hydrogen

**Green & Low-Carbon (LC) Hydrogen**  
produced via water electrolysis

## E-Fuels & Derivatives

**eMethanol, eAmmonia, SAF**  
produced with green and low-carbon H2

### ONSITE

**Dedicated containerised electrolyser units**  
in the vicinity of customers



### OFFSITE

**Large scale centralized production plants**  
for the supply of large quantities via pipeline



### IMPORTS

- **Green & LC H2 from Europe**
- **Green derivatives from Overseas**



# Hynamics leverages the EDF competencies

## FINANCING



- The EDF Group plans to build up to 3 GW of electrolysis capacity by 2030
- 2 to 3 billion € of planned investments for hydrogen solutions until 2030

## ELECTRICITY



- 36 GW of green electricity in operation
- Leading global energy utility
- Experienced energy trading unit



## ENGINEERING



- More than 4.000 engineers & technical staff
- Dedicated groups specialized on H<sub>2</sub> projects

## TECHNOLOGY

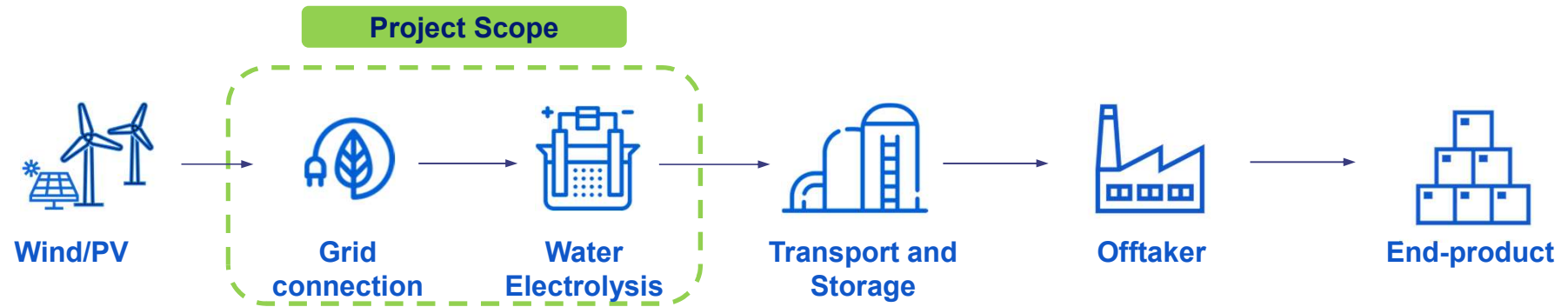


- 20+ years of experience with hydrogen R&D
- Multi-MW test platform at R&D Lab Les Renardières
- Technology-agnostic market sounding

# Hynamics Project Development



# H2 Project Development: A whole new value chain



## RFNBO-Compliant Electricity Sourcing

- Additionality
- Hourly Correlation
- Yearly average data for grid electricity

## H2 Production Challenges

- New technology
- High CAPEX
- High OPEX
- Lack of appropriate funding schemes

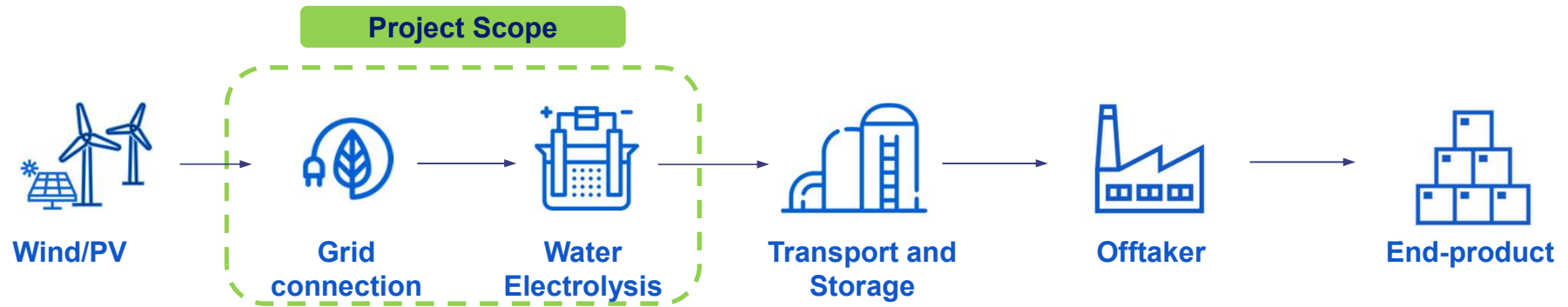
## Infrastructure Challenges

- Availability of core network
- Availability of storage sites
- Uncertain costs of transport & storage

## Direct & Indirect Customers

- Use of green H2 not mandatory
- Funding programs not 100% adapted to H2 consumption
- Strong international competition
- No incentive to consume “green-produced goods”

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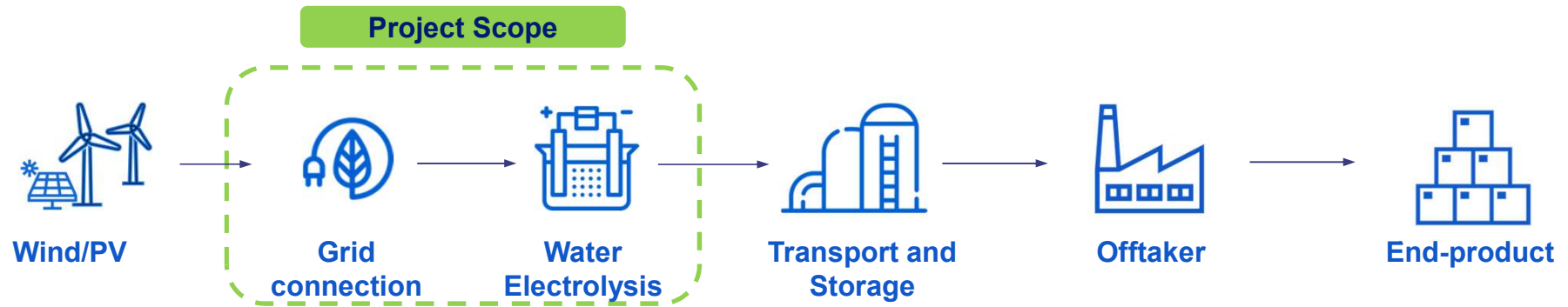
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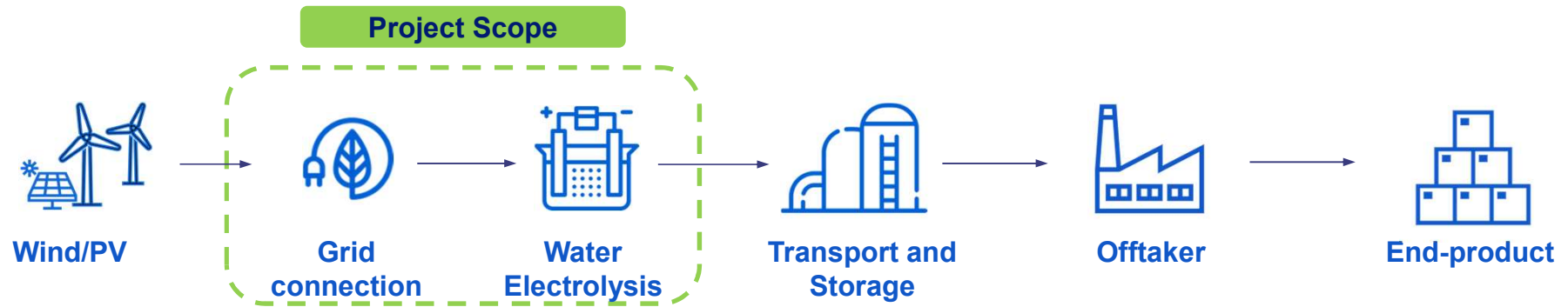
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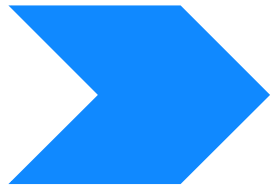
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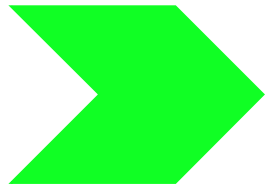
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# The launch of the H2 market : A chance to define our own rules to ensure a green transition



Ease the electricity sourcing through a pragmatic review of the EU delegated acts

Extension of the monthly correlation and additionality exemption, hourly averages for the RE and CO2 share in the electricity grid



Support a new technology through more appropriate subsidy programmes

Specific budget for H2 projects in the framework of KSV or dedicated OPEX support for H2 production (French model)



Push the downstream market through a consistent implementation of REDIII targets for industry and transport: Quotas, Offtake-guarantees, Public procurement requirements for green end products



# HYNAMICS

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