



**RE4iINDUSTRY**  
Renewable energies for industries

# 100% Renewable

# Energies for

# Industries

[www.re4industry.eu](http://www.re4industry.eu)



**At a  
glance**

**RE4Industry: 100% Renewable Energies for Energy Intensive Industries**

**Project Coordinator:  
FUNDACION CIRCE - CENTRO DE INVESTIGACION DE  
RECURSOS Y CONSUMOS ENERGETICOS**

**11 partners from 6 countries (AT, BE, DE, ES, GR, NL)**

**Total EU contribution: € 2 999 500 (total cost)**

**Starting date: 1st September 2020 - Duration: 36 months**

**RE4iINDUSTRY**



## Context

The EU has started a progressive decarbonisation with the **aim to become carbon neutral by 2050**. Energy Intensive Industries (EII) are expected to play an important role in this transition as they represent 24% of the final energy consumption, but **a clear long-term vision and strategy is required** in order to remain competitive while contributing to the decarbonization targets of the EU.

RE4Industry has been conceived under this framework with a twofold aim:

- to support EII in the **identification and integration of renewable energy (RE) solutions** together with the definition of **Action Plans for decarbonisation**
- to transform the EU industrial landscape into **a large market niche for the uptake of RE** while defining the appropriate framework conditions for **short- and long-term scenarios**.





# Goals

1

To set a multi-actor collaborative network, involved and actively compromised to gather and identify the needs of the sector, in order to make possible this transition

2

To show the RE technologies with more potential to be utilised by Ells or integrated in their industrial processes, and mark the path in the short (2030) and long term (2050)

3

To identify, visualise and share success stories of Ells already adopting RE with the innovations

4

To promote the early transition of Ells by means of a direct accompaniment within companies

5

To achieve a common understanding and vision of the role that Ells have to play towards 2050 a RE consumers and potential RE promoters

6

To promote a more favourable policy and market framework to allow the competitiveness of RE based Ells goods

7

To ensure a growing interest and alignment of European society by means of a strong and coordinated communication campaign coherent with Ell sector messages

8

To empower the sector and key organizations through knowledge transfer, strategic positioning and cross-border actions



## SHORT-TERM VISION

2030

## LONG-TERM VISION

### TECHNOLOGY OPTIONS

- Conventional RE heating / power
- New RE (solar thermal, bio syngas)
- H2 (electrolysis / syngas)
- E-fuels (synthesis fuels from RE based hydrogenation of CO2 captured)

### ACHIEVABLE RATES

- CO2 balance  $\leq 0$
- RE use = 100%

### CURRENT SECTOR NEEDS

- Scope to understand the future options on RE
- Implications for retrofitting to produce and adopt e-fuels
- Energy balances and key indicators of adopting each RE alternative (for an early decision making in short-medium term)
- Expected costs for RE use

2050

### TECHNOLOGY OPTIONS

- Conventional RE heating
- Biomass
  - Bioenergy carriers
  - Solar (high temperature)
  - Geotherm

### ACHIEVABLE RATES

- CO2 balance  $> 0$  (reduced according to RE use)
- RE use  $< 50\%$

### CURRENT SECTOR NEEDS

- Existing options for retrofit
- Cases already implemented
- Lessons learned
- Insight in cost / economics
- Opportunities (e.g. for financing, long term RE contracting)
- Positive social perception
- Influence for a better framework

**Vision**

**RE4iINDUSTRY**



## RE4Industry actions

RE4Industry methodology can be expressed through 7 action axes targeted to generate confidence, facilitate vision, provide support and ensure market options to EIs.



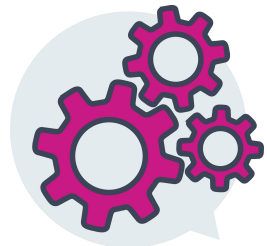
A strong engagement strategy following a multiactor approach



A dialogue with and within EIs and EI organizations



A thoughtful review of RE technologies and options for a 100% RE production by 2050



Insights into industry retrofitting and promotion of RE integration



Recommendations for the uptake of RE by EIs and advocacy



Multiplication and replication



A solid dissemination and communication strategy



## Collaborative Network

### RE4Industry clusters: GR/ES/NL/DE

**Technical Experts**, focused on technical feedback, approaching the topic on the technical side and on a multi-thematic level

### RE4Industry Committee GR/ES/NL/DE

**Policy and advocacy-oriented** group at national level, acting as **main national leaders** in transferring the solutions developed to national decision makers

### RE4Industry Expert Group: sector oriented

**Sector oriented** with a **strategic perspective on an EU level**, providing **insights** on the market and **technical positioning of the sector**

### RE4Industry Committee EU

**Highest-level group of RE4Industry**, acting as main responsible people to shape and transfer the solutions at EU policy-making side



## Share your experience & become a Success Case

### Targeted technologies and applications

RE4Industry is looking for cases that have **successfully implemented** or are **investigating integration** of various forms of **renewable energy** sourcing in the productive processes in an **Energy Intensive Industry**:

*Biomass, Biogas and Biomethane, Electrification, Geothermal Heat, Green Hydrogen, Heat Pumps, Power Purchase Agreements (PPAs) for renewable electricity, Solar Heat, others...*

### Targeted industries

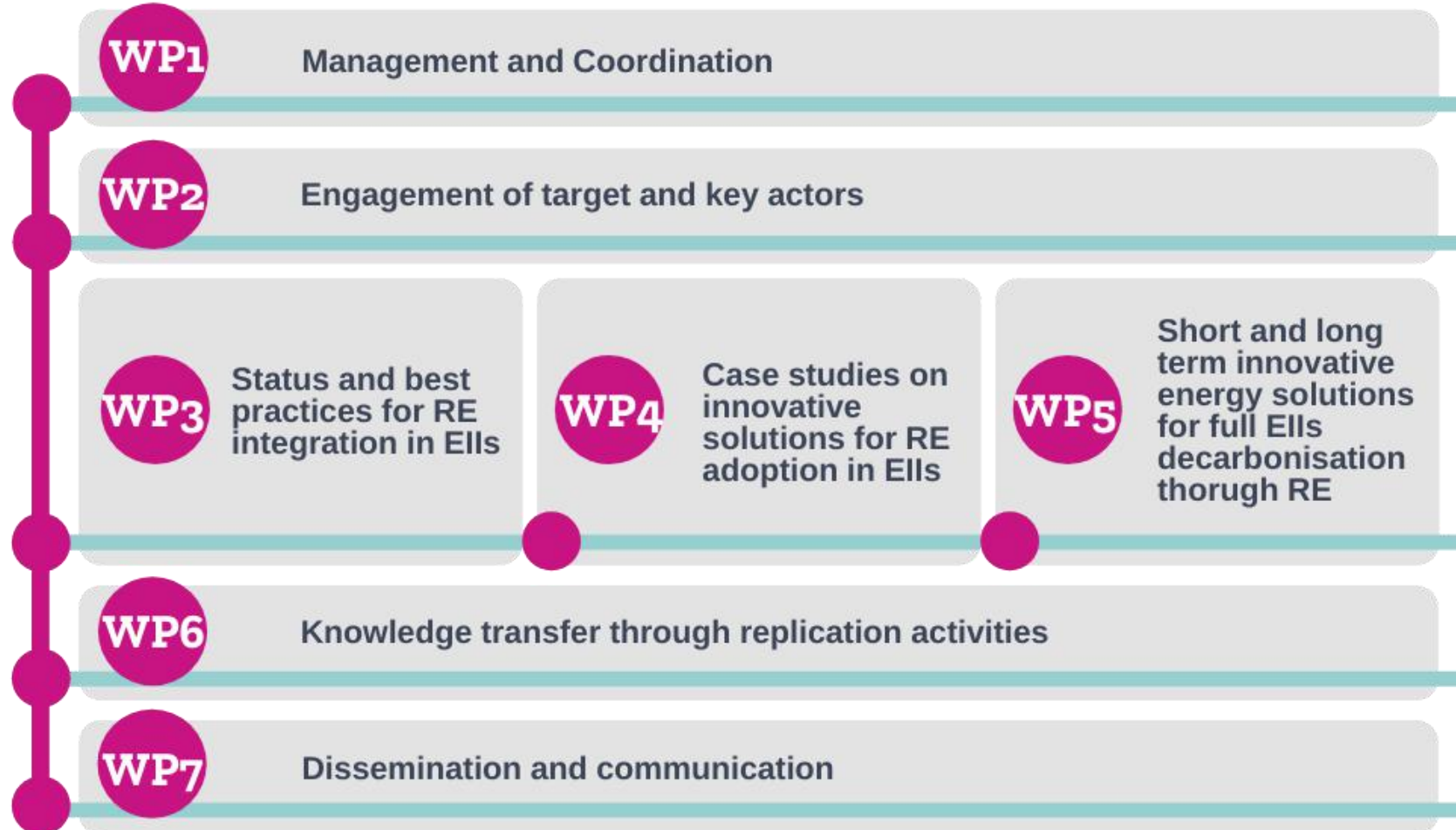
RE4Industry is primarily **targeting success cases** from the following **Energy Intensive Industry** sectors:

*Cement, Lime and producers of similar mineral products (e.g. magnesite), Ceramics, Chemicals, Fertilizers, Glass, Non-ferrous metals (aluminum, copper, nickel, ferro-alloys, etc.), Steel...*

Your unique way to **promote your company's sustainability** efforts and achievements with the **RE4INDUSTRY network**



## Project workflow





## Consortium

### TECHNOLOGICAL AND SOCIAL EXPERTS



### RENEWABLE ENERGY-ORIENTED ASSOCIATIONS



### ENERGY INTENSIVE INDUSTRIES





**Thank you!**

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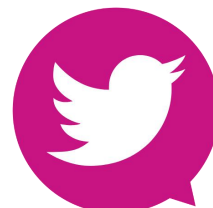
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