



**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**

## 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

### 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

## LONG-TERM VISION

2050

### 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

Vision

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## RE4Industry actions



A strong engagement strategy following a multiactor approach



A dialogue with and within EIs and EII organizations



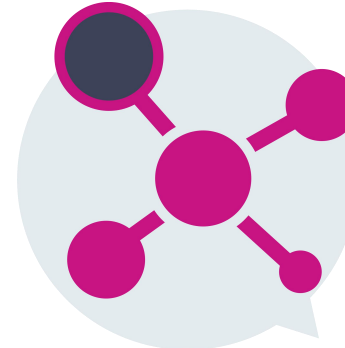
A thoughtful review of RE technologies and options for a 100% RE production by 2050



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 Expert group: Society*



As part of the RE4Industry Expert Group for **society**, you will be part of a **sector oriented expert group**, unique in its kind, all the while **sharing your visions on the renewable sector at EU-level**.

Your deep and extensive knowledge and background on the this side will contribute to the **definition of a 100% renewable vision for European energy intensive industries**.

## Contribution

### *RE4Industry Expert group: Society*



- Top notch **consultation** for the project offering a wider strategic perspective on an EU level and provide **feedback** on specific activities and strategic project reports.
- Participate in **replication** and **dissemination** activities of the RE4Industry project (e.g. in RE4Industry fora” which consists of meetings and workshops connected to events of relevance -like fairs, summits, or thematic weeks).
- Meet biannually through a telco. **Physical meeting** is envisaged by March 2022. A **budget** for the trips is foreseen.



## Collaborative Network

### *RE4Industry Expert group: Society*

#### The benefits of the Expert Groups

- Full and very first insights to all **project outcomes**, based on the work **performed** in some of the **major European energy intensive industries**;
- Opportunities for **knowledge exchange and networking with high-level national and international actors**;
- **Open door for participation in future EU-funded projects**;
- **Full visibility at EU level**, on our project website and all public communication materials and channels;
- Updates on **tailored events, seminars or other actions** based on your interests;
- **Insights in opportunities and barriers** for decarbonisation of **energy intensive industries**.

## Collaborative Network

### *RE4Industry Expert group: Society*

### Specific Project Results of Interest:

### TG Energy Intensive Industries

- Report on **Barriers, Drivers and Opportunities** for RE market (3/2023);
- Report on **Success cases** of integration of **RE in EIs** (2/2022);
- **Case study** highlights in **RE adoption** by 3 EIs in **Steel, Aluminum and Chemical** sectors (2/2023);
- EIs **Sector status in EU** report (2/2022);
- **Mapping tool** of the EIs per sector in Europe (8/2021);
- **Handbook** for transition towards **100% RE-based production** of EIs (8/2023);
- **Feasible technologies and requirements** for RE integration (2/2023);
- RE4Industry **Brochure** (4/2023);
- **Common vision** for decarbonization of EIs in **Europe** and **policy recommendations** (2/2023).

## Collaborative Network

### *RE4Industry Expert group: Society*

#### Specific Project Results of Interest:

**TG technology  
providers, ESCOs,  
engineering firms**

- Report on **Success cases** of integration of **RE in EIs** (2/2022);
- **Case study** highlights in **RE adoption** by 3 EIs in **Steel, Aluminum** and **Chemical** sectors (2/2023);
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## Collaborative Network

### *RE4Industry Expert group: Society*

#### Specific Project Results of Interest:

**TG academia,  
researchers and  
R&D departments**

- Report on **Barriers, Drivers and Opportunities** for RE market (3/2023);
- Report on **Success cases** of integration of **RE in ELLs** (2/2022);
- ELLs **Sector status in EU** report (2/2022);
- **Mapping tool** of the ELLs per sector in Europe (8/2021);
- **Handbook** for transition towards **100% RE-based production** of ELLs (8/2023);
- **Feasible technologies and requirements** for RE integration (2/2023);
- RE4Industry **Brochure** (4/2023);
- **Common vision** for decarbonization of ELLs in **Europe** and **policy recommendations** (2/2023).

**Collaborative Network*****RE4Industry Expert group: Society*****Specific Project  
Results of  
Interest:****TG relevant value  
chain actors and  
associations**

- **RE4Industry Brochure (4/2023);**
- **Common vision for decarbonization of Eells in Europe (2/2023);**
- **Policy recommendations (2/2023).**

## Collaborative Network

### *RE4Industry Expert group: Society*

#### Specific Project Results of Interest:

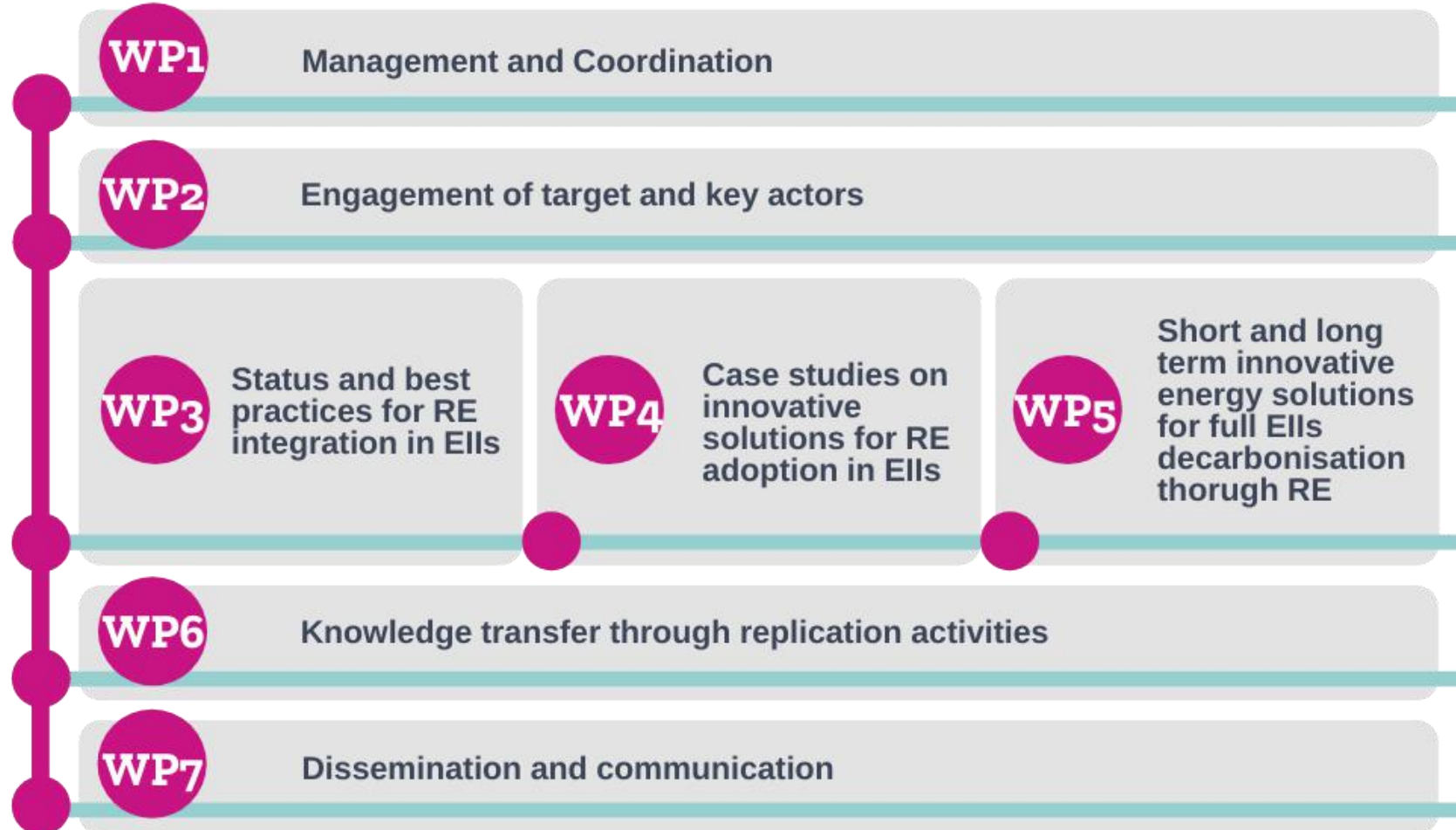
#### TG policy actors

- Report on **Barriers, Drivers and Opportunities** for RE market (3/2023);
- Report on **Success cases** of integration of **RE in ELLs** (2/2022);
- RE4Industry **Brochure** (4/2023);
- **Common vision** for decarbonization of ELLs in **Europe** and **policy recommendations** (2/2023).

**Collaborative Network*****RE4Industry Expert group: Society*****Specific Project  
Results of  
Interest:****TG society**

- **Common vision** for decarbonization of EITs in **Europe** (2/2023)
- **Policy recommendations** (2/2023)

# Project workflow





## Consortium

### TECHNOLOGICAL AND SOCIAL EXPERTS



### RENEWABLE ENERGY-ORIENTED ASSOCIATIONS



### ENERGY INTENSIVE INDUSTRIES



**Thank you!**



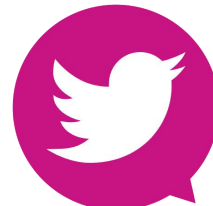
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RE4Industry role  
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