

# Mainstreaming RES in industry



Nicola Rega  
Energy Director

7 December 2021

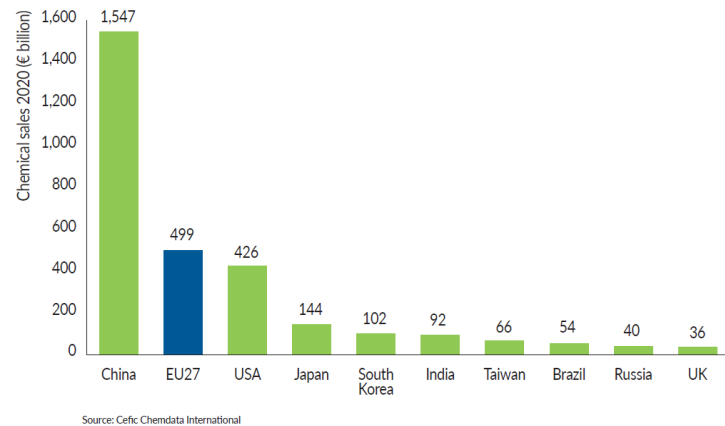


# At the Heart of European Industry

## *Providing the essentials*

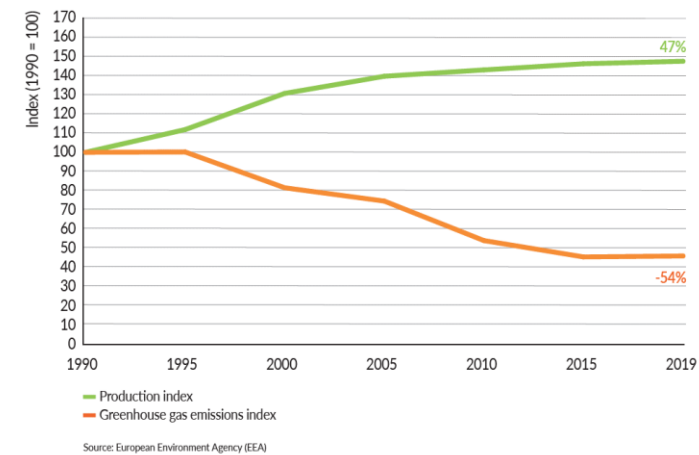
EU27 is the 2nd largest chemicals producer in the world

Chemical sales by country: top 10



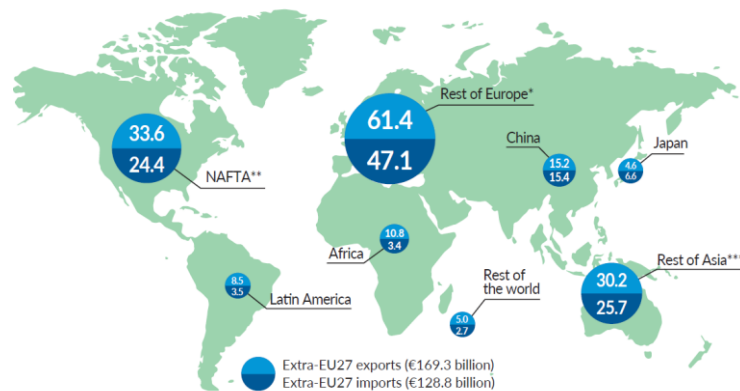
EU27 chemical production and greenhouse gas emissions decoupled

GHG emission and production by the EU27 chemical industry



EU27 holds trade surplus with top competing markets

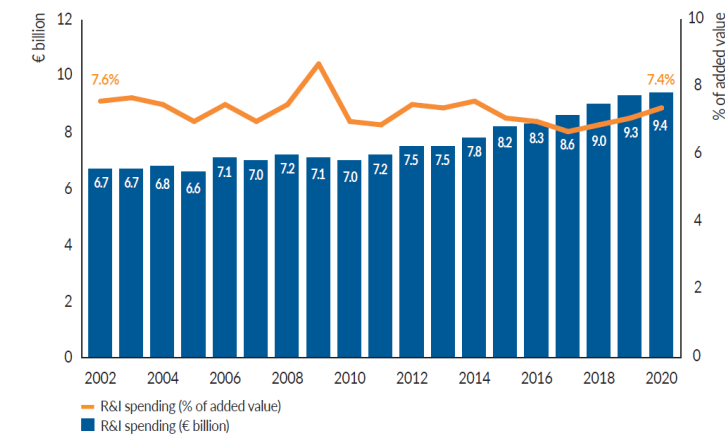
EU27 chemicals trade flows with major geographic blocs (2020)



\* Rest of Europe covers UK, Switzerland, Norway, Turkey, Russia and Ukraine  
 \*\* North American Free Trade Agreement  
 \*\*\* Asia excluding China and Japan

EU27 R&I spending reaches the highest level in 2020

R&I spending by the EU27 chemical industry



# The EU Chemicals Industry from the point of view of the EU Institutions

1. Chemicals are everywhere in our daily life and play a fundamental role in most of our activities and are also building blocks of low-carbon, zero pollution and energy- and resource-efficient technologies, materials and products



2. Highlights that the chemical industry is of significant importance for the European economy, and that the modernisation and decarbonisation of this industry is fundamental to achieving the objectives of the Green Deal; acknowledges that the chemical industry is able to provide multiple low-carbon solutions; emphasises the importance of developing the chemical industry in order to help deliver on the EU climate ambitions for 2030 and 2050



3. RECOGNISES that at several levels, the chemicals industry is of key significance to the European economy and society, and EMPHASISES that the chemicals industry is a key industrial sector for advancing the green and digital twin transitions, and a key player in the development of a sustainable and competitive European industry



[1. European Commission Communication on Chemicals Strategy for Sustainability of 14/10/20](#)

[2. European Parliament Resolution on the Chemicals Strategy for Sustainability of 10/7/20](#)

[3. Council Conclusions: Sustainable Chemicals Strategy of the Union: Time to Deliver of 15/3/21](#)

# Cefic overall views on the 'Fit for 55' package

- For the chemical industry, the EU Green Deal is not a just a twin transition, but a **double twin transition**
- The European Chemical industry:
  - Supports the **Green Deal**
  - Has the ambition to become **climate neutral by 2050**
  - Welcomes the **'Fit for 55' package**
  - Welcomes the Commission ambition to increase the **use of renewable energies by 2030**

## The chemical industry's double twin transition





# Cefic approach to renewable energies

*We want to make the RED III a success of the Fit for 55 Package*

- **Our approach to the RED III**
  - renewables will be a key enabler of the transition to a climate neutral Europe
  - while safeguarding EU industrial competitiveness
  - thus strengthening Europe's leading role in tackling climate change.
- **Cefic recommendations** on the RED III focus on the following areas:
  1. Access to cost-competitive renewable energy
  2. Access to cost-competitive renewable hydrogen
  3. Market creation for renewable and low-carbon products
  4. Establishing a level-playing field for biomass



Cefic position paper on RED III is available at the following link: [https://cefic.org/app/uploads/2021/11/Cefic\\_Position\\_Paper\\_RED-III.pdf](https://cefic.org/app/uploads/2021/11/Cefic_Position_Paper_RED-III.pdf)

# Access to cost-competitive renewable energy

- Renewable energies are **one of the core components in industry's paths** to carbon neutrality
- **Limits to on-site** renewable energies generation in our industry
  - Volumes: need for large energy volumes, to be delivered 24/7 throughout the whole year
  - Space & Logistics: lack of available / suitable areas on the industrial site or in its surroundings
  - Safety: Seveso II Directive requires additional measures in proximities of chemical plants
- Use of **renewable electricity** is therefore **one of the main options** on the path to climate neutrality
  - Our companies are major players in Power Purchasing Agreements and partners in RES project developments
- However, **we are still far** from the volumes of cost competitive and dispatchable renewables needed to unleash the business case for electrification and/ or use of hydrogen in our industry
- We welcome the new proposals aimed at **lowering barriers, increasing transparency and regulatory stability**, and **promoting cost-efficient deployment of renewable electricity**



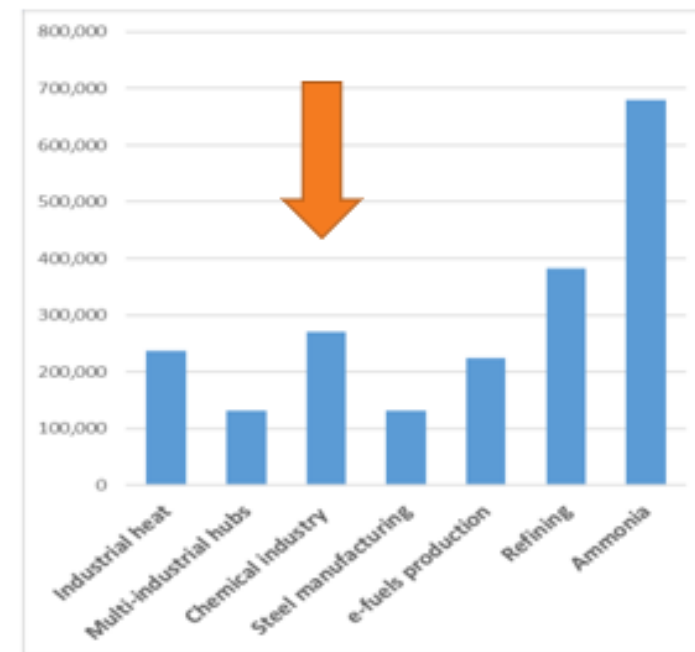
# Access to cost-competitive renewable hydrogen

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## *Hydrogen role in the chemical industry*

- The chemical industry is one of the main industrial producers and consumers of hydrogen. The **chemical industry uses hydrogen mainly as a feedstock**.
- On the path to climate neutrality, **hydrogen can play an important role** in our sector.
- Cefic is **fully committed** to playing its part to help make renewable and low-carbon fuels, including hydrogen, a reality by 2030.
- Cefic is the **facilitating organisation** of the Roundtable on clean hydrogen in industrial applications of the **European Clean Hydrogen Alliance** (ECH2A).
- We acknowledge that **the Commission proposal** has the merits of **trying to promote renewable hydrogen to industrial users**

**Hydrogen demand in industry applications**  
• Around 2 million tonnes/year by 2026



Source: European Commission, The European Clean Hydrogen Alliance: [Overview](#) of projects collected



# Access to cost-competitive renewable hydrogen

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## Concerns with the RFNBO target on industry

- **Overarching concerns:**

- A **framework** enabling the uptake of a **hydrogen market and hydrogen infrastructure is still missing**  
Need to bridge with the forthcoming hydrogen and gas market decarbonisation package
- **Impact** of RFNBO proposal on **ongoing low-carbon hydrogen projects**  
E.g. the ones in the ECH2A projects pipeline, Innovation Fund...
- **Availability of necessary renewable electricity** to meet RFNBO target (not in industry's control)

- **Specific concerns:**

- Our industry is exposed to **international competition** and cannot cope with the additional costs
- Production and consumption of renewable hydrogen **do not necessarily happen in geographically correlated areas**
- **Hydrogen as by-product and/or from by-products in industrial installations** cannot be replaced by delivering renewable hydrogen due to the process itself
- The **methodology** to calculate **renewable electricity used for renewable hydrogen** production is still missing  
→Note: it might impact the feasibility of reaching the target





# Thank you.

**Contact:**

Nicola Rega  
Energy Director  
[nre@cefic.be](mailto:nre@cefic.be)

**About Cefic**

Cefic, the European Chemical Industry Council, founded in 1972, is the voice of large, medium and small chemical companies across Europe, which provide 1.1 million jobs and account for 15% of world chemicals production. Cefic members form one of the most active networks of the business community, complemented by partnerships with industry associations representing various sectors in the value chain. A full list of our members is available on the Cefic website. Cefic is an active member of the International Council of Chemical Associations (ICCA), which represents chemical manufacturers and producers all over the world and seeks to strengthen existing cooperation with global organisations such as UNEP and the OECD to improve chemicals management worldwide



Chemical growth returning closer to pre-COVID19 levels but challenging times remain for industry- China is still the main driver continuing to grow significantly

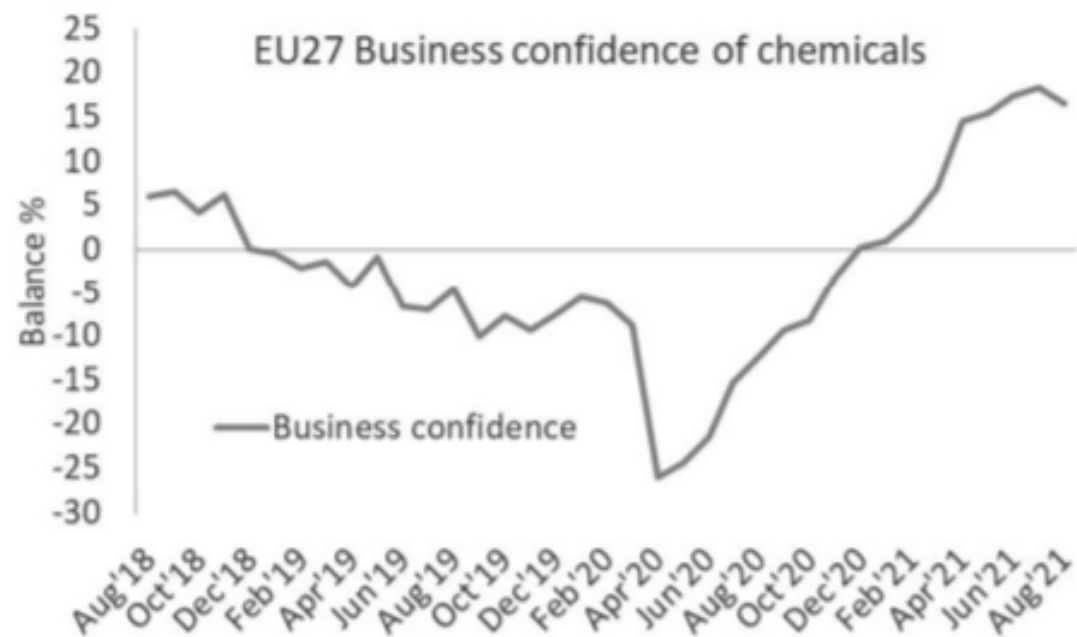


Table: Output growth for key chemical producing countries

Chemical output by country	Production growth		Production index (2015=100)		Production growth
	2019	2020	Jan-June-2020	Jan-June-2021	Jan-June (21/20)
China	4,6	2,9	118,2	136,8	15,7
India	1,2	-5,4	93,4	110,0	17,7
Japan	-0,6	-12,5	95,7	97,2	1,6
South Korea	-1,4	-2,9	105,8	115,3	9,0
EU27	-1,2	-1,8	96,8	104,1	7,5
USA	-5,6	-3,5	90,5	88,8	-1,9
Latin America	-1,2	-0,1	94,9	103,8	9,4
World	1,4	-0,1	106,7	117,7	10,3

