



**FEDERCHIMICA**  
CONFINDUSTRIA



# **SITUATION AND OUTLOOK FOR THE CHEMICAL INDUSTRY**

**28 OCTOBER 2024**



## EXPECTATIONS FOR RECOVERY OF CHEMICAL PRODUCTION IN ITALY POSTPONED UNTIL 2025 AMID INTENSE COMPETITIVE PRESSURES

In 2023, the chemical industry - active in Italy with over 2,800 companies and 112,000 highly qualified employees - achieved a **production value of 67 billion euros and almost 40 billion euros in exports**.

The chemical one is not only the country's **fifth largest industry** but is a strategic supplier for all economic chains: **chemicals are essential components of 95% of manufactured goods**, whether for everyday use or used in applications central to the ecological transition such as batteries, wind turbines or solar panels. In its turn, the chemical industry is a highly integrated supply chain on a continental level and Italy is the **third largest European producer** after Germany and France.

During 2024, the fall in chemical production in Italy came to a halt (+0.9% in January-August 2024 compared to the same period of the previous year), also thanks to a phase of normalisation of inventories by customers after the marked decumulation in the previous year. Basic chemicals, although showing some upward momentum, remains at levels well below 2021 (-15%) while - at the other extreme - cosmetics are confirmed as expanding (+9% year-on-year).

Despite the significant return of energy costs from the peaks of 2022, industrial demand shows no signs of improvement. Among the main customer sectors, automotive has abruptly reversed its rebound phase - also due to increasing import pressure - and construction, after the boom of previous years, shows a downturn despite initial positive impulses related to infrastructure. Only fast-mover consumption goods - in particular foodstuffs - and, to a lesser extent, electrical engineering continued to expand.

**After two consecutive years of contraction (-4.1% in 2022 and -6.7% in 2023), chemical production in Italy is expected to stabilise substantially in 2024 (+0.5%). The chances of a timid recovery are postponed to 2025 (+1.2%) but remain subject to an environment full of unknowns and characterised by intense competitive pressures.**

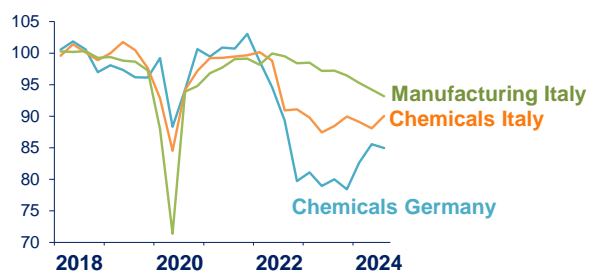
### The numbers of the chemical industry in Italy

(2023)

Production value (billion euros)	67.4
- of which exports (billion euros)	39.8
-----	
Companies (number)	2,834
Employees (thousands)	112.7
-----	
R&D investment (million euros)	677
R&D personnel/employees	8%

Source: Istat and Federchimica

### Chemical production in Italy and Germany, industrial in Italy (indexes 2018=100)



% change	2022	2023	2024	2025
<b>Chemical production in Italy</b>	<b>-4.1</b>	<b>-6.7</b>	<b>+0.5</b>	<b>+1.5</b>

Source: Eurostat, Federchimica

The picture remains challenging for the entire European chemical industry. Uncompetitive energy costs and uncertainty - fuelled also by the mass of new regulations linked to the Green Deal - are holding back new investments and have already led to the rationalisation of some basic production: in fact, **of the total number of closures announced worldwide, 75% concern the EU.**

**For Italy, a factor of relative resilience, also in light of the return of gas prices to more manageable levels, is given by specialisation in speciality and consumer chemicals (sectoral production share of 57% compared to 37% at EU level).** The supply chain is, however, closely interconnected, and the weakening of the upstream stages also puts at risk those downstream, especially in a context that calls for greater attention to security of supply.

## **THE ENERGY ISSUE IS NOT RESOLVED DUE TO MULTIPLE OVERLAPPING COST ASYMMETRIES**

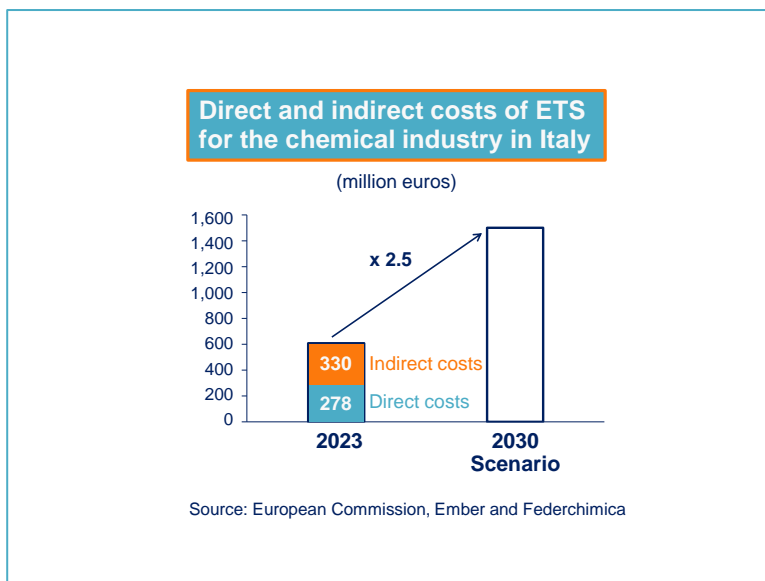
**Despite the return of gas prices to more manageable levels, the energy issue cannot be said to be resolved and risks affecting investments. Chemistry is among the most sensitive sectors as it uses fossil sources (oil and natural gas) both for energy and as raw materials** and, in light of currently available technologies, their complete replacement is not feasible.

To pursue the ecological transition and cope with cost increases, chemical companies are using every available lever such as the use of alternative fuels and raw materials, the search for new suppliers, product reformulation as well as intensifying investments in energy efficiency, cogeneration (combined heat and power), renewables and the circular economy.

**Above all, the overlapping of multiple sources of competitive asymmetry weighs heavily. In 2024, gas prices remain at more than four times the level of US prices** and remain subject to upside risks in light of persistent tensions in the Middle East and dependence on LNG imports subject to competition from a trending Asian demand (also progressively replacing coal).

**Italy also suffers from wide differentials in the price of electricity in relation to other major European producers:** in the first 9 months the average wholesale price was around €100/MWh compared with €50 in France, which benefits from nuclear power, and Spain, where the development of renewables is proceeding more rapidly and, above all, the wholesale price of electricity is no longer pegged to the marginal price of gas.

As a result of Europe's acceleration of decarbonization targets, also aided by speculative phenomena, the cost of CO<sub>2</sub> emission permits – under the European Emission Trading Scheme (ETS) – escalated from 25 euros in 2019 to 65 euros in the first nine months of 2024 despite weak industrial activity. Direct costs for the most energy-intensive component of the chemical industry are 278 million euros, but even more significant and widespread to all enterprises is the indirect cost, related to electricity purchases. **Overall – between direct and indirect costs for CO<sub>2</sub> emissions – the chemical industry pays more than 600 million euros in a year, a burden close to all R&D expenditures in the industry that is not borne by non-EU producers.**



This extra cost is set to expand further: **in a scenario to 2030 – characterized by a planned 27% reduction in free allowances and a forecast for the CO<sub>2</sub> price of €150 per ton – the total cost would more than double to over €1.5 billion.**

**As highlighted by the Draghi Report, postponing the reduction of free ETS allowances should be considered because the so-called CBAM (Carbon Border Adjustment Mechanism) – aimed at making imported products also pay the cost of CO<sub>2</sub> emissions – is not an effective solution.** In fact, in addition to significant difficulties in implementation, it is prone to circumvention, does not protect export competitiveness and exposes downstream sectors to relocation risks with cascading effects for entire supply chains.

There is a need for policies aimed at securing – quickly – **gas and electricity at capped and competitive costs, but above all a single European electricity market.** In addition, support schemes for **cogeneration** plants should be revised to enable the use of green gas. Revenues from **CO<sub>2</sub> emission permits should finance projects to decarbonize industrial sectors** (this aspect is also explicitly referred to by the Draghi Report), **and offsets for indirect CO<sub>2</sub> costs should reach in Italy the upper limit of 70% allowed by legislation,** as is the case in other major European countries.

In addition to accelerating the development of **renewable sources including for self-generation purposes,** the use of **domestic gas resources** should be enhanced and a **truly integrated system for its transmission at the European level** should be developed. In addition, a path should be taken for the use of **fourth-generation nuclear power** (especially Smr, i.e. small and modulable reactors) that can **provide the chemical industry with energy in the medium term in a stable manner with zero emissions (offsetting the intermittency of renewable sources), at competitive costs and less prone to volatility.** While the advent of artificial intelligence offers great opportunities in terms of efficiency, security, and sustainability, it will also result in large electricity consumption by data centers.

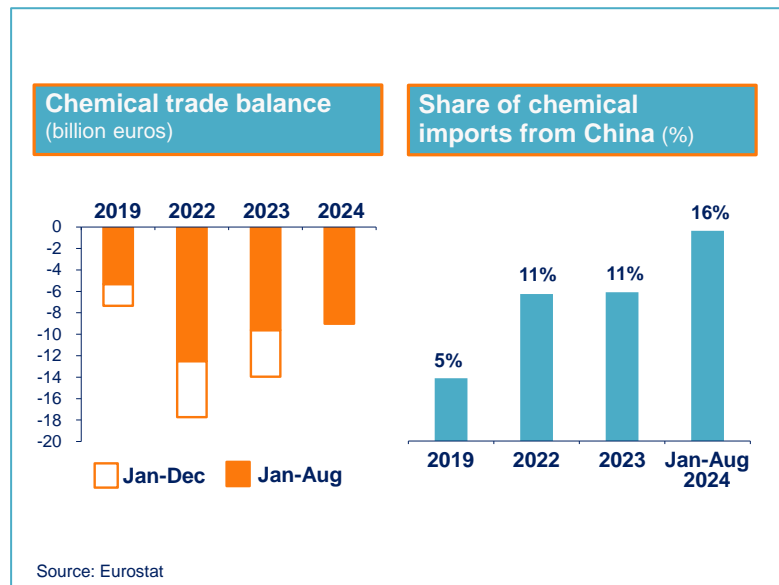
## TRADE BALANCE IMPROVES, BUT DEPENDENCE ON CHINA CONTINUES TO INCREASE

Exports show signs of moderate recovery (+0.7% in value in the first 9 months of 2024) involving some of the main European markets (Germany +2.1% and Spain +4.5% while France marks a 1.5% decline). Exports to the US also undergo a downward correction (-1.6%) after strong expansion in previous years (with levels remaining +56% above 2019).

**The trend of gradual improvement in the trade balance continues, although the aggravation compared to 2019 is not yet fully reabsorbed (more than 5 billion as a projection through 2024 concentrated in basic chemicals against a substantial hold in fine and specialty chemicals).**

Despite the significant shrinkage in the energy cost gap and the escalation of international logistics costs, **the share of chemical imports from China continues to increase, touching 16% in January-August 2024 from 5% in 2019.** This shows

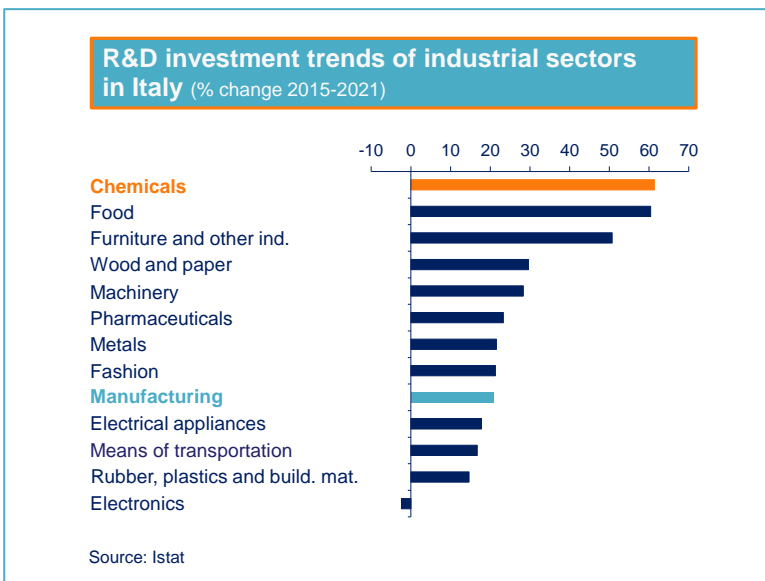
how penalizing competitive conditions for chemicals, Italian and European, entail not only a serious loss from an economic-social point of view but also a setback in terms of environmental protection as they inevitably translate into more imports from low-cost countries characterized by lower standards and fewer guarantees. New production capacity in China not only limits export possibilities from Italy but – in the face of lacklustre domestic demand – results in aggressive trade policies.



## CHEMISTRY AND GREEN TRANSITION BETWEEN RADICAL INNOVATIONS AND INCREMENTAL IMPROVEMENTS

Despite a complex context full of uncertainties, **the chemical industry is the industrial sector that has most increased investment in R&D in Italy (+61% since 2015) to a value of over 670 million euros per year.** Companies are, in fact, aware that the competitive challenge and the green transition require the development of new technological solutions and new business models. Research and innovation - carried out by chemical companies with both domestic and foreign ownership - represent a driver of development for the entire Made in Italy industry.

**The green transition requires investment in new breakthrough technologies under development or industrialisation** for chemical recycling, products from bio- and renewable sources, low-carbon and renewable hydrogen, and CO<sub>2</sub> capture, storage and reuse, **but equally important is the incremental contribution of innovations in existing processes and products with a view to continuous improvement.** One area of investment that offers immediate returns in terms of competitiveness clearly relates to energy efficiency and self-production, but companies are also heavily engaged on many other fronts. Optimising the use of all natural resources and along the entire life cycle of products, developing the circular economy and eco-design, strengthening collaboration along the supply chain and information/training for users and end consumers.



Commitment to environmental protection in the chemicals sector has a long history with tangible results of absolute excellence: the reduction of direct CO<sub>2</sub> emissions (-58% since 1990) has already exceeded the European target for 2050 (-50%), water consumption at the same production rate has been reduced by 46% since 2005, and recycling is already the number one waste management method (34% share).

However, with respect to the need to further accelerate the green transition, **the market is not always receptive and willing to recognise the value of highly innovative eco-sustainable products and solutions. Moreover, obtaining the necessary authorisations, permits and authorisations, e.g. of an environmental and town-planning nature, often takes a long time and is complex.**

## THE DEVELOPMENT OF THE CHEMICAL INDUSTRY MUST BE ENHANCED

The chemical industry has a crucial role to play in making the green transition a reality without sacrificing welfare and social cohesion. With its innovative drive, it has always been a promoter of social equity, responding to new needs with solutions that are accessible to large sections of the population. By virtue of its technical-scientific expertise on the matter and its position upstream of all supply chains, it is key to reducing emissions in downstream uses and promoting the circular economy and sustainability while ensuring strategic autonomy for the EU with regard to critical raw materials.



The environmental challenge requires huge investments and, at the current stage, the ability to attract them is decisive as the foundations are being laid for the competitiveness of the coming decades. For this reason, Cefic (Association of the European Chemical Industry, of which Federchimica is a member) has initiated the **Antwerp Declaration to demand of the European institutions of the incoming legislature that the Green Deal be accompanied by an Industrial Deal with adequate resources**, in order to support the industry on its path of transformation, safeguarding competitiveness and employment. On the contrary, **Europe has so far taken resources from the chemical industry (ETS, CBAM, Plastic Levy) without adequately supporting its green transition.**

For the sector, access to **cost-competitive energy sources** as well as clear timeframes for **authorisation processes** are essential preconditions.

The chemical industry is probably the sector most affected by the massive mass of new legislative initiatives, directives and regulations related to the Green Deal. **Regulations** are a powerful tool to guide businesses and consumers, but they must not fuel uncertainty and become an obstacle to investment and competitiveness. Setting targets while respecting the principle of **technology neutrality** means keeping the way open for multiple technologies, allowing the best solutions to be identified according to the countless application needs – also in relation to the specificities of individual countries – and at the same time favouring a gradual reconversion of existing industrial structures. Choices should be guided by **scientific assessments** over the entire life cycle of products, and even any **restrictions on the use of substances**, sometimes extended to entire families of substances, should not be based solely on assessments of potential danger but should take into account the capacity for effective risk management, the multiplicity of uses (sometimes precisely for health, safety and environmental protection purposes) and the difficulty or impossibility of identifying viable alternatives.

The development of the circular economy – an area in which Italy has know-how of excellence – requires **regulations that are favourable to the recycling and transport of waste** as well as the development of adequate **infrastructure**.

In the knowledge that more innovative eco-sustainable products entail higher costs, incentive mechanisms are needed to stimulate market **demand** as well as effective controls also on substances and **products imported** from outside the EU.

It is essential to recognise that the **green transition will require not less, but more chemicals**; suffice it to say that sustainable mobility will require at least 30% more chemicals. In this sense, some first encouraging signs are emerging for a cultural change that must concern all institutions.

In particular, **the EU's Strategic Agenda 2024-2029** – adopted by the heads of government at the European Summit on 27 and 28 June in order to provide political guidance for the European Commission's work programmes at the start of the legislative period – **includes chemistry for the first time among the key areas for the EU's competitiveness and economic security**. Indeed, the chemical sector could play a key role, driving the development of European competitiveness, facilitating the ecological transition and promoting the creation of crucial technologies for the future. It is therefore necessary to overcome ideological preconceptions and work in **partnership** with a sector that has shown that it is not the problem but, on the contrary, part of the solution.





---

Headquarters

**20149 Milano**

Via Giovanni da Procida, 11

Phone +39 02 34 565.1

[federchimica@federchimica.it](mailto:federchimica@federchimica.it)

---

**00186 Roma**

Largo Arenula, 34

Phone +39 06 54273.1

[ist@federchimica.it](mailto:ist@federchimica.it)

---

**1040 Bruxelles**

Avenue de la Joyeuse Entrée, 1

Phone +322 2803292

[delegazione@federchimica.eu](mailto:delegazione@federchimica.eu)

[www.federchimica.it](http://www.federchimica.it)