EUROPEAN
COMMISSION

Strasbourg, 8.7.2025
COM(2025) 530 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

A European Chemicals Industry Action Plan

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

A European Chemicals Industry Action Plan

1. INTRODUCTION

The chemical industry is the industry of the industries. As the EU's fourth largest manufacturing industry, it contributes to over 96% of manufactured goods, making it a cornerstone of the EU's industrial resilience and competitiveness. Chemicals are crucial for a wide range of applications in strategic sectors such as defence, cleantech and digital. Europe therefore needs to keep a strong chemicals industry. At the same time, the industry needs to transition to a clean and circular economy model, embracing innovation, strengthening its global competitiveness and ensuring the protection of human health and environment.

Yet today, the sector also faces significant challenges that threaten its competitive position and resilience. Its global market share has declined by over 50% since 2003, with other regions, such as China, emerging as major players. High energy and feedstock prices, geopolitical tensions, and low market demand have eroded the competitiveness of EU-based producers, leading to declining production utilisation rates. The past two years witnessed the announcement of closures of more than 20 major production sites[1] in the EU, including steam crackers and other upstream facilities used for producing fundamental building blocks.

This Action Plan builds on the Competitiveness Compass[2], the Clean Industrial Deal[3] and the Strategic Dialogue with the Chemical Industry, held by President von der Leyen on 12 May 2025. It sets out concrete measures to help secure the global competitiveness of the European chemicals industry, to maintain a strong European production base and to upgrade it through action in four key areas: 1) strengthening resilience: maintaining critical production in EU and opening new markets and protecting the EU industry 2) securing energy supply, supporting decarbonisation and shift towards clean and circular economy; 3) creating lead markets and promoting innovation; and 4) simplifying the regulatory framework.

The Action Plan is accompanied by an Omnibus legislative proposal on chemicals[4], to simplify, for example, labelling requirements, as well as a delegated act on low-carbon

(1) It is estimated that these major sites account for 10 000 - 20 000 job losses.
(2) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A Competitiveness Compass for the EU, COM(2025) 30 final.
(3) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - The Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation, COM(2025) 85 final.
(4) Proposal for a Regulation of the European Parliament and of the Council amending Regulations (EC) No 1272/2008, (EC) No 1223/2009 and (EU) 2019/1009 as regards simplification of certain requirements and procedures for chemical products, COM(2025) 531

hydrogen[5]. It is complemented by a proposal for the European Chemicals Agency (ECHA) Basic Regulation [6], further simplifying the governance of the regulatory framework of chemicals.

2. STRENGTHENING RESILIENCE

2.1. Maintaining critical production in the EU

The EU must maintain and upgrade its core chemical production capacity, to strengthen its competitiveness and preserve its resilience. The primary building blocks, such as petrochemicals, ammonia and chlorine are the foundation of numerous value chains, from pharmaceuticals to batteries. Yet, the EU has lost at least 8-10% of its cracking capacity over the last three years, with potential future closures bringing the total loss to more than 20% of the 2021 capacity. Most remaining EU crackers, concentrated in a few regions and often integrated with oil refineries, are outdated, rely heavily on naphtha as a primary feedstock, and are less efficient than their global competitors[7].

These structural weaknesses are not limited to steam crackers. Other critical productions[8] have faced widespread shutdowns, creating ripple effects on the whole chemical ecosystem. This not only affects sectors such as plastics, polymers, and consumer and specialty chemicals, it also puts up to 200 000 direct jobs at risk.[9]

To preserve and modernise strategic production capacities and value chains, decarbonise the sector, reduce dependencies[10] and attract the right skills, the Commission will establish a **Critical Chemicals Alliance**[11]. This Alliance will act as a strategic umbrella that enables cooperation with Member States and stakeholders, so that the risks of production capacity closures in the sector can be mapped and addressed. The Alliance will also facilitate discussions on key trade challenges, such as global level playing distortions, supply chain dependencies, and intellectual property rights issues, by helping the industry and the Commission to detect potentially harmful import surges at an early stage. This work will draw on the Transition Pathway for the Chemical Industry.

The Alliance will help develop **criteria for identifying chemical sites and molecules** that are critical for the EU's strategic objectives. These should reflect their importance for downstream strategic sectors, as well the level of EU trade dependencies. Building on the experience of the other strategic industries, such as raw materials or net-zero, it could also explore new resilience factors relevant to the chemicals sector, such as rare or limited replication production sites critical to the value chains in the Union.

Based on these criteria, the Alliance will contribute to **mapping critical molecules**, such as those that are essential for strategic value chains and subject to dependency on a single

(5) COMMISSION DELEGATED REGULATION (EU) …/... supplementing Directive (EU) 2024/1788 of the European Parliament and of the Council by specifying a methodology for assessing greenhouse gas emissions savings from low- carbon fuels, C 2025 (4674)

(6) Proposal for a Regulation of the European Parliament and of the Council on the European Chemicals Agency and amending Regulations (EC) No 1907/2006, (EU) No 528/2012, (EU) No 649/2012 and (EU) 2019/1021, COM 2025 (386)

(7) In particular, ethane crackers common in the US and Middle East.

(8) The include amongst the others olefins, aromatics, methanol, ammonia and chlorine.

(9) CEFIC report: "the Competitiveness of the EU Chemical Industry".

(10) For instance, on fertilisers

(11) in compliance with the competition rules and EU's international commitments.

third country or a few suppliers[12]. Such molecules would subsequently benefit from enhanced monitoring under the Customs Surveillance System and could serve as a basis for a potential legislative proposal.

The Alliance will also support the EU and Member States in aligning investment priorities and guide coordination of EU support mechanisms with national projects, including Important Projects of Common European Interest (IPCEIs). Two potential IPCEIs could benefit the chemicals sector. First, the Joint European Forum for IPCEI (JEF-IPCEI) is looking at the biotechnology value chain to identify possible projects. Second, the Forum endorsed a project on circular advanced materials and its design is currently ongoing. Member States may design aid measures to support IPCEIs for technologies crucial for the clean transition or important infrastructure projects. Whether or not an IPCEI emerges will depend on the fiscal capacity of the participating Member States.

Third, the Commission will assist Member States and regions in designating **EU Critical Chemical Sites**. They would build on already existing industrial clusters and platforms such as the European Chemical Regions network. Such local industrial ecosystems have a crucial role to play in maintaining resilient value chains in sectors like clean technologies, aerospace, defence or health - sectors that require an agile and modernised production base.

Many of these sites require investments to modernise, depollute and decarbonise, while increasing competitiveness. Targeted support should be made available to modernise sites at risk of closure and to facilitate their green transition, in line with State aid rules where applicable.

There are around 150 chemical parks across the EU. They anchor industrial activity, jobs, and centres of excellence and innovation. The Commission will help safeguard and support the development of these ecosystems through,- modernisation and decarbonisation, using cohesion funding, both under the current legal framework and following from the proposed communication on a modernised cohesion policy[13]. It will build on the experience of Just Transition Fund on decarbonisation, upskilling/reskilling and capacity building, the Innovation Fund and InvestEU. Currently, the Commission already supports the decarbonisation of the chemical industry with the Just Transition Fund and the just transition process.

Investments could be supported through the co-creation of regional plans for the EU Critical Chemical Sites, bringing together industry, academia, start-ups, and regional authorities. This should result in better matching local needs with available resources, infrastructures and instruments, and would allow innovative companies and start-ups to bring new solutions in modernising critical production processes, accelerating decarbonisation, digitalisation, and circularity as well as promoting safer and more sustainable chemicals. This collaborative groundwork can help improve matchmaking with EU funding instruments. In this regard, the Commission could inform Member States of relevant funding opportunities and reduce the risk that promising projects fall through the cracks due to administrative complexity or fragmented support.

([12]) For critical raw materials is addressed in the Raw Materials Information Systems RMIS https://rmis.jrc.ec.europa.eu/

([13]) Commission Communication "A modernised Cohesion policy: The mid-term review", COM(2025) 163 final, 1 April 2025

This initiative will also help with providing administrative assistance to other measures such as strengthening research-industry collaboration, promoting innovation, supporting SMEs and upskilling/reskilling of local workforce[14].

The implementation of the current Action Plan will also rely on the Competitiveness Coordination Tool, as presented in the Competitiveness Compass, to alleviate the sector's dependencies on external factors and support its transition toward a more sustainable and competitive future.

The Commission will:

- Establish a Critical Chemicals Alliance at EU level as a strategic umbrella structure for cooperation with Member States and stakeholders to address the risks of production capacity closures in the sector and discuss key trade challenges (Q4 2025).

The Alliance will:

- Set up support for Member States and stakeholders to develop criteria to identify critical production sites and molecules in the EU (Q4 2025).
- Assist Member States and stakeholders in mapping critical molecules, which will serve as a basis for enhanced monitoring under the Customs Surveillance System, supply diversification, as well as a possible legislative proposal on critical molecules (2026).
- Assist Member States and Regions in setting up EU Critical Chemicals Sites, to facilitate investments, innovation, improve access to funding and assist the modernisation of critical production capacities (2026).

2.2. International trade: opening new markets and protecting the EU industry

The European chemical industry is a leading exporter and a key contributor to Europe's trade balance. In 2023, the value of chemical exports from the EU, excluding pharmaceutical and medicinal products, reached EUR 285 billion, compared to EUR 241 billion in imports. Its trade surplus is mainly attributed to the downstream segments (consumer and specialty chemicals), polymers and chemical intermediates, whereas its trade deficit in the upstream segments reflects the EU's dependence on imported energy and feedstock carriers (fossil energy and feedstocks, bio-based feedstocks) used to produce other chemicals.

For the industry to regain its competitiveness within the EU and internationally, access to overseas markets for both exports and imports, along with a reinforced level playing field, is critical, for example in the area of intellectual property protection. To achieve this, the EU will take sector-specific actions as described below.

Securing access to export markets

The Commission will continue to expand the EU's network of free trade agreements to reduce trade barriers and evaluate relevant aspects of existing trade agreements with a view

(14) Under the Pact for Skills a regional partnership led by the European Chemical Regions Network, has as primary commitment to assist regions in navigating the challenges posed by the industry's transition to green and digital practices.

to promoting trade in chemicals, including ensuring access to raw material inputs that are essential for the chemicals industry.

The Commission will strive, in cooperation with stakeholders, to support the chemicals industry through other forms of agreements, where free trade agreements are currently not possible, to facilitate market access and promote trade through alternative tailor-made forms of engagement with our partners. These might include sectoral regulatory cooperation agreements, aiming to reduce unnecessary barriers to simplify trade in chemicals, as well as Critical Raw Materials Strategic Partnerships or Clean Trade and Investment Partnerships (CTIP), in order to secure supply chain diversification for essential critical raw materials inputs.

Trade defence

Where warranted, the Commission will continue to make fast and efficient use of trade defence instruments, such as anti-dumping, anti-subsidy or safeguard measures. This should protect our industries from unfair global competition and ensure that our market does not serve as an export destination for trade diversion and state-induced excess global capacity.

Between 1 January 2024 and 30 June 2025, the Commission initiated 18 trade defence investigations on imports of chemicals from third countries. In addition, on 30 June 2025 there were 46 measures in force which concern chemicals. The majority of these cases concern imports from China, likely due to a build-up of massive overcapacities. While the EU industry was facing rising costs, Chinese producers steeply lowered their prices. This price decrease is totally disconnected from global raw materials market trends, which points to dumping practices.

The Commission will strengthen the EU's trade defence toolbox to respond more swiftly and effectively to unfair pricing practices in the chemical sector. It will also accelerate the fast and efficient use of trade defence instruments, including through close cooperation with the Chemical Industry Alliance to detect such practices. The Commission will continue acting decisively against practices of evasion of anti-dumping measures, through application of anti-circumvention procedures.

To ensure timely action based on accurate data, the Commission will continue to closely monitor imports of chemicals both under its newly created Import Surveillance Task Force and through the specific monitoring system introduced in March 2025 for certain industrial chemicals. This monitoring will be expanded to further molecules, notably to those under the list of critical molecules, once it is agreed.

Customs and market surveillance

Imports placed on the EU market must respect the same rules as EU-made products. This is a matter of credibility, industrial resilience, and consumer protection. The EU and its Member States will step up enforcement of EU chemicals legislation to close loopholes that allow non-compliant imports, particularly through online platforms or unregulated intermediaries, as this risks distorting competition and undermines compliant EU producers. The Digital Product Passport will play a role in supporting this goal, by improving transparency along value chains and providing reliable and comparable information on both EU and non-EU products.

This requires stepping up controls at the border, including though customs reform and better market surveillance. In addition, the EU should move towards targeted, risk-based checks on chemicals, building on initiatives like those outlined in the e-commerce Communication[15]. This includes the development of harmonised enforcement priorities, such as checks on substances in articles, restricted chemicals, or mislabelled mixtures. These efforts will help ensure that products entering the EU do not bypass safety rules, undercutting the internal market and weakening incentives to innovate. As outlined in the Single Market Strategy, the Commission is committed to take effective action to increase product compliance by tapping into synergies with capacities of the EU and national customs and market surveillance authorities and potentially establishing an EU Market Surveillance Authority[16].

To reinforce the compliance of imported goods with the relevant EU rules, the Commission will strengthen enforcement through improved cooperation and information exchange among national authorities, ECHA, and customs authorities. This will involve boosting coordination through Administrative Cooperation Groups (AdCos) and enhancing systems like the Information and Communication System on Market Surveillance (ICSMS) and the Safety Gate rapid alert system. Additionally, the Commission will promote better enforcement of existing rules, including under REACH, through the EU Single Window Environment for Customs and its future articulation in the context of the Customs Union Reform and its EU Customs Data Hub as well as other custom systems. Also, the next EMPACT (European Multidisciplinary Platform Against Criminal Threats) cycle 2026-2029 presents an opportunity to strengthen the framework against counterfeit goods, including chemicals. [17]

The Commission will:

- Continue collaborating with international partners to secure access to global markets, pursuing sectoral cooperation agreements where free trade agreements are not possible.
- Strengthen the monitoring of chemicals under the Import Surveillance Task Force including for trade defence responses to detect potentially injurious import surges early (Q3 2025).
- Support the development of harmonised risk-based controls for chemicals to reinforce the compliance of imported goods with the relevant EU rules. (Q4 2025).
- Coordinate a package of enforcement and market surveillance actions, including through the integration of REACH through the EU Single Window Environment for Customs and its future articulation in the context of the Customs Union Reform and its EU Customs Data Hub, and other customs systems, as well as by prioritising chemicals in national market surveillance work plans (Q4 2025).

3. SECURING AFFORDABLE ENERGY SUPPLY AND SUPPORTING DECARBONISATION

High energy prices are significantly undermining the cost-competitiveness of EU based chemicals producers. Energy accounts for about 75% of production costs in the EU petrochemicals sector. Natural gas makes up over 70% of the variable costs of ammonia,

([15]) A comprehensive EU toolbox for safe and sustainable e-commerce, COM(2025) 37 final.

([16]) COM(2025) 500 final

([17]) See also the Commission Communication "A comprehensive EU toolbox for safe and sustainable e-commerce", COM(2025) 37 final, 5 February 2025, p. 12.

while electricity accounts for over 60% of production costs in industry. Enhanced investment in interconnections and supply chains with Southern Neighbourhood partners under the New Mediterranean Pact will be a key asset.

The chemical industry depends on imported fossil fuels not only as a source of energy, for example to generate heat in production processes, but also as raw material inputs for most chemical products. This dual dependency makes the sector uniquely vulnerable to fossil fuels price volatility and supply chain disruptions. While EU chemicals industry should gradually move away from these dependencies, it is essential that transition policies take account of the sector's current energy and feedstock needs to ensure resilience, decarbonisation and competitiveness.

3.1. Securing affordable energy supply

The Action Plan for Affordable Energy[18] adopted in February 2025, aims to deliver lower prices to European energy consumers, including the chemical industry. The Commission will also continue to aggregate gas demand for EU companies to lower the overall energy costs.

The EU Emission Trading System (ETS) indirect cost compensation State Aid Guidelines[19] enable Member States to compensate certain energy-intensive sectors (including selected chemical sectors or products, such as refined petroleum products, certain inorganic basic chemicals, some industrial gases or polyethylene) for the increase in electricity prices, caused by the application of the EU ETS. The current State aid framework does not include some chemical sectors. However, as the price assumptions made at the time no longer reflect the current market conditions, with prices now also affecting sectors like organic chemicals or fertilisers, the Commission will by the end of the year update the ETS State aid guidelines with the view to including, among others, additional chemical sectors.

In parallel, the Clean Industrial Deal State Aid Framework "CISAF"[20],allows Member States to grant temporary relief on electricity costs for energy-intensive, trade-exposed industries, with a minimum price of 50 EUR/MWh, on condition that they reinvest in decarbonisation. The framework also allows for State aid support for deployment of a wide array of decarbonisation technologies such as electrification, hydrogen, biomass, carbon capture utilisation and storage as well as de-risking of investments in clean energy or decarbonisation projects. Overall, these measures will help deliver decarbonisation investments alleviate current energy cost pressures and support the continued production of chemicals in the EU.

Faster permitting

The chemical industry often requires the establishment of new installations or the retrofitting and modernisation of existing infrastructure. This requires new permits.

([18]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Action Plan for Affordable Energy Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans, COM(2025)79 final.

([19]) Communication from the Commission Guidelines on certain State aid measures in the context of the system for greenhouse gas emission allowance trading post-2021, C(2020) 6400 final.

([20]) Communication From The Commission - Framework for State Aid measures to support the Clean Industrial Deal, (Clean Industrial Deal State Aid Framework), C(2025) 7600

The EU has already put in place legislation to accelerate and streamline the permit-granting process for some industrial installations, through the Net Zero Industry Act[21] and the revision of the Industrial Emissions Directive[22]. The revised Industrial Emissions Directive[23] sets up a new Innovation Centre on Industrial Transformation and Emissions (INCITE). INCITE will identify and evaluate innovative techniques to showcase their potential and promote their uptake on a larger scale. The most effective and viable innovative techniques will be included in the conclusions on best available techniques.

In the Defence Readiness package, the Commission proposed a fast-track permitting regime for defence readiness to enable a rapid scale-up of industrial capacity in response to urgent security needs. Building on the experience of Net Zero Industry Act, the Commission will propose later this year an Industrial Decarbonisation Accelerator Act, with concrete measures to address permitting bottlenecks relating to the decarbonisation of energy intensive industries. Permitting challenges relating to environment assessments will be addressed in the environmental omnibus in Q4 2025.

To accelerate the deployment of electrification projects, it is essential to accelerate grid access for chemical installations, ensuring they can quickly source clean energy to transform their production processes. As part of a European Grid Package, in 2025 the Commission will propose measures to accelerate access to grids, storage and renewables.

Hydrogen

Besides its use for electricity generation, hydrogen is necessary for a cost-effective transformation of the EU chemical industry. As a producer and consumer of hydrogen, the chemical sector is well positioned to support the development of hydrogen economies in the EU. Hydrogen will be key for the decarbonisation of various chemical products, for example through the production of low-carbon nitrogen fertilisers.

The Commission will support the uptake of renewable and low-carbon hydrogen and the development of related infrastructure. The Commission has also launched a study to assess the effectiveness of the hydrogen framework to identify possible barriers to the upscaling of renewable hydrogen and assess the need for an adjustment of its regulatory framework.

In addition, a third call under the Hydrogen Bank will be soon launched to support hydrogen production in Europe. On the same day as this Action Plan, the Commission also adopts a delegated act on low-carbon hydrogen to provide certainty to investors and promote the uptake of these technologies. The production and delivery of hydrogen is also one of the main objectives of the upcoming Trans-Mediterranean Energy and Clean Tech Cooperation Initiative.

In addition to other forms of support, the free allocation rules in the EU ETS have been updated to ensure technological neutrality in the carbon leakage protection measures. Therefore, the production of hydrogen via electrolysis has been made eligible to receive free EU ETS emission allowances at the benchmark level set by traditional technologies.

([21]) Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem, OJ L, 2024/1735, 28.6.2024.

([22]) Directive 2010/75/EU of the European parliament and of the Council of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control).

([23]) As amended by Directive (EU) 2024/1785

The Commission will:

- Update the State aid guidelines for ETS indirect cost compensation, with the view to including additional chemicals (Q4 2025).
- Propose to address challenges related to environmental permitting including for decarbonisation projects under the environmental omnibus (Q4 2025).
- Propose speeding up and streamlining other aspects of permitting (including digitalisation) for decarbonisation projects under the Industry Decarbonisation Accelerator Act (Q4 2025).
- Propose facilitating grid access to energy intensive industries electrification projects (Q4 2025)

3.2. Supporting decarbonisation and the shift to a circular economy

Meeting net-zero ambitions and the shift to a circular economy model require investments. At the same time, the move towards safer and more sustainable chemicals offers significant opportunities to EU chemicals industry and downstream users.

As one of sectors hardest to abate, the chemical industry requires a technology neutral, step-by-step and transitional approach to decarbonisation. Transitional solutions in particular, such as ethane crackers, will be important in the process of transforming the sector.

In addition, achieving net zero and reducing strategic dependencies will require a progressive shift away from both fossil energy and virgin fossil feedstock, where technically and economically feasible. Alternative clean carbon sources like biomass, recycled waste and carbon from carbon capture utilisation (CCU) are essential for this. To this end, the Commission will design incentives to build a viable business case for the clean transition of the EU chemical industry.

EU financial support

The EU budget supports innovation and decarbonisation projects throughout the different innovation stages.

The Horizon Europe work programme 2026-2027 will support the transition to industrial decarbonisation at the earlier innovation stages with approximately EUR 370 million. In addition, as announced in the Clean Industrial Deal, the Commission will lauch a flagship Horizon Europe call of EUR 600 million under the 2026-2027 work programme to support fit for-deployment projects. This call will be complementing ongoing research and innovation efforts funded under Horizon Europe and will aim to foster synergies between the Framework Programme for research and investment (R&I) and the Innovation Fund, creating a pipeline of projects from R&I to deployment. The call will target all energy intensive industries, including the chemical industry.

The Innovation Fund, set up by the EU ETS, provides incentives to invest in industrial decarbonisation. In the context of the ETS review in 2026, the Commission will take into account the specificities of the energy-intensive industries and it will propose to further enhance this toolbox with an Industrial Decarbonisation Bank, aiming to provide up to EUR 100 billion of funding for industrial decarbonisation. In 2025, a pilot for a new Industrial Decarbonisation Bank will be launched with a EUR 1 billion auction for the

decarbonisation of key industrial processes, notably heat, which also in the chemical sector is one of the largest sources of energy demand and greenhouse gas emissions[24].

The InvestEU Fund mobilises public and private investment for innovation and clean transition, including in supporting start-ups and scale-ups in clean technologies. An amendment to the InvestEU Regulation, currently under discussion by the co-legislators, proposed to increase the size of the InvestEU Fund and its offer to the market (notably guarantees, venture debt and equity financial products) by mobilising additional EUR 50 billion of investment also to support the objectives of the Clean Industrial Deal's objectives and initiatives implemented by the European Investment Bank Group, such as TechEU. The revised InvestEU fund will be able to provide support to investments benefiting energy-intensive industries, for instance, through supporting electricity grid equipment, clean tech guarantees and corporate Power Purchase Agreements for renewable energy.

The future Competitiveness Fund will support decarbonisation efforts. Dedicated public private initiative could also be established to promote investments for the modernisation of the chemical sector. This is without prejudice to the next Multiannual Financial Framework proposal's package.

Bioeconomy and biomass

Bio-based feedstocks can offer meaningful alternatives to fossil carbon material[25]. If designed correctly, using locally and sustainably sourced bio-based materials, they can reduce dependencies on global value chains (such as replacing fossil gas with biogas and biomass) and greenhouse gas emissions.

Using bio-based alternatives enables the production of safer and more sustainable chemicals. For example, microbial fermentation uses microorganisms to convert sugars and plant-based materials into valuable chemicals, reducing the need for petroleum-based processes. Enzymes in enzymatic processes are increasingly used in bio-based chemical production as catalysts that facilitate more sustainable reactions. These processes often require less energy and generate fewer harmful byproducts than traditional methods.

Technological advances enable companies to convert waste materials and valorise waste, such as agricultural residues and food waste, into valuable biobased chemicals and bio-fertilisers. This reduces the need for virgin raw materials and valorises waste. Moreover, there is a potential of exploiting current production capacity to use alternative feedstock and biobased materials. At the same time, the protection of biodiversity and food security must be ensured.

The upcoming **Bioeconomy Strategy** (Q4 2025) will aim to improve resource efficiency and tap the significant growth potential of bio-based materials substituting fossil-based materials, and related industries. This can also further reduce dependencies on imported raw materials for the EU chemicals industry. The strategy will define a vision and directions for scaling up the manufacturing of sustainable bio-based materials, develop biotechnologies, promote innovation and investments in high-value applications, including

(24) cfde57b3-d80f-43e1-9ee4-cd96c42c6ca8_en

(25) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, COM(2024)137 final.

for chemicals. Also, it will explore how to ensure chemical industry's access to biomaterial for added value uses such as biochemicals.

The Commission has already highlighted[26] the potential of sustainable biomass as an alternative feedstock[27], with the option of voluntary labelling of bio-based products to create lead markets. It will explore further options to incentivise the use of sustainable biomass as feedstock.

Support for circularity

Chemical recycling can play an important role in reducing the EU's dependence on virgin, fossil-based resources for plastic production and valorise end-of-life products. For example, hard-to-recycle waste plastics not suitable for mechanical recycling or where specific quality requirements need to be reached can particularly benefit from chemical recycling. It would contribute to the EU's targets for recycling plastic waste and increasing recycled content in plastics.

To promote effective deployment of chemical recycling, the Commission is launching the public consultation on an implementing act under the Single-use Plastics Directive[28] to establish a clear, science-based and technologically neutral framework on the mass balance allocation to account for recycling content from chemical recycling, allowing to create a lead market for the chemical sector to become more circular. An implementing act is scheduled for adoption in Q4 2025.

The proposal for a Circular Economy Act will address both the supply and demand side by creating a single market for waste and boosting the use of recycled and secondary materials. This presents a significant opportunity for the chemicals industry, which plays a central role in enabling circular solutions across value chains.

Carbon Capture, Utilisation and Storage (CCUS)

CCUS is a fundamental net-zero technology to reduce dependencies on fossil fuels and contribute to the resilience of European industries, particularly those harder to electrify and to abate, such as chemicals, as outlined in the 2024 Industrial Carbon Management Communication[29]. CCU can also improve industrial symbiosis, by linking sources of industrial emissions to off-takers across local value chains.

This requires a structured approach to planning infrastructure, covering both the demand and supply sides of captured CO2 and hydrogen networks. As a first step, the Delegated Act under the Net Zero Industry Act, which will enter into force shortly, outlines the obligations of EU gas and oil producers in meeting the EU's 2030 CO2 storage target. Furthermore, the Commission intends to draw up a dedicated legislative regime to

---

([26]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU, COM(2024)137 final.

([27]) See also the Vision for Agriculture and Food, adopted in February 2025, has set out perspectives to expand bioeconomy, to valorise by-products and waste, to accelerate market access for biopesticides and to support the uptake of low-carbon fertilisers from recycled nutrients and digestate from biogas.

([28]) Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment, OJ L 155, 12.6.2019, p. 1.

([29]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Towards an ambitious Industrial Carbon Management for the EU, COM(2024)62 final.

ensure the progressive development of an EU market for CO2 and CO2 infrastructure, creating the trust and longer-term predictability for the value chain to take-off.

The successful uptake of CCU also requires a supportive regulatory framework. The current ETS rules do not recognise captured CO2 in non-permanent products, such as those produced by the chemical industry.

As part of the 2026 ETS review, the Commission will assess both the feasibility of including waste management[30] in the EU ETS and, in this context, how to best reward captured CO2 in non-permanent products. In addition, it will assess the case of permanent carbon removals to compensate for residual emissions from hard to abate sectors.

The Commission will:

- Adopt a new EU Bioeconomy Strategy to define a vision and directions for scaling up the manufacturing of sustainable biobased materials, develop biotechnologies, promote innovation and investments in high-value applications, including for chemicals (Q4 2025).
- Propose a Circular Economy Act to unlock secondary materials markets and drive circularity in the chemicals (2026).
- Support the safe and effective deployment of chemical recycling under the Single-Use Plastic Directive: public consultation launched Q3 2025 and adopt an impmeneting act under the Single-use Plastics Directive concerning chemical recycling (Q4 2025).
- Assess the feasibility to accounting emissions from non-permanent CCU products downstream as part of the ETS review (Q2/Q3 2026).
- Develop financial incentives to promote the uptake of non-fossil carbon as well as renewable and low-carbon hydrogen.
- Improve the regulatory framework for carbon capture, transportation, utilisation and storage (CCUS), including by proposing a regulatory framework for developing an EU CO2 markets and infrastructure.

4. LEAD MARKETS AND INNOVATION

4.1. Lead markets and green taxation

The investments in non-fossil feedstocks and low-carbon technologies are often constrained by the lack of off-takers, rendering it difficult for frontrunner companies to reap the "green premium" and capitalise on investments. Therefore, within the logic of the upcoming reform of the public procurement, the Industrial Decarbonisation Accelerator Act will introduce EU content requirements, in line with the Union's international legal commitments, as well as resilience and sustainability criteria with the objective to foster and safeguard clean European supply of energy-intensive products and European demand for downstream industries.

Taxation can contribute to develop innovative, low-carbon solutions **for the EU chemicals industry**. To support this objective, the Commission has put forward the Commission Recommendation on Tax Incentives to support the Clean Industrial Deal. This initiative provides a policy signal to businesses, encouraging them to accelerate their transition towards clean tech, industrial decarbonisation and sustainable growth. It recommends the

(30) Waste incineration and other waste management processes, such as in particular landfilling, which creates methane and nitrous oxide emissions.

provision of tax credits for clean tech manufacturers as well as accelerated depreciation for heavy industries like the chemical sector when they invest in clean technology equipment.

The Commission will:

- Introduce EU content requirements as well as resilience and sustainability criteria to promote lead markets for specific sectors under the Industrial Decarbonisation Accelerator Act (Q4 2025).

4.2. Innovation

Innovation is crucial for the chemical industry to remain competitive. It is fundamental to the development of breakthrough production technologies, for example those based on green chemistry, such as photochemistry, electrochemistry, and the development of new products including advanced materials. Innovation also benefits downstream users and consumers by providing safer and more sustainable alternatives.

The EU provides significant support to early-stage innovation in the chemical industry, from the development of new concepts to pilot projects, under Horizon Europe, particularly within European partnerships, such as Circular Bio-Based Europe Joint Undertaking[31] (CBE JU), Process4Planet[32] and Innovative Advanced Materials for Europe (IAM4EU)[33].

However, scaling up innovative applications to industrial deployment remains a significant challenge. This is a sensitive stage in the innovation process, since it involves high levels of investments and considerable uncertainty, both in terms of technological performance and future market uptake.

The Commission will create EU Innovation and substitution Hub(s) to overcome innovation barriers, accelerate the development of safer and more sustainable solutions and and will explore collaborative approaches to the substitution of targeted chemicals. These hubs, inspired by the INCITE model, will help companies, especially SMEs, in horizon scanning, in identifying and evaluating alternatives, fostering partnerships, and sharing knowledge. The ***Safe and Sustainable by Design*** (SSbD) chemicals will be embedded in the Innovation Hubs, providing technical guidance from early-stage innovation. The SSbD framework will promote collaboration among product designers, chemical companies, scientists and research organisations. The Commission will facilitate access to the necessary digital and physical infrastructure to develop, test and scale up SSbD innovations.

These Hubs will also explore collaborative approaches towards the substitution of targeted chemicals and could host an EU Network of Substitution Centres to provide tailored

(31) Circular Bio-based Europe Joint Undertaking (CBE JU) is a EUR 2 billion public-private partnership between the EU and the Bio-based Industries Consortium (BIC). It funds projects to advance competitive circular bio-based industries in the EU 29 . The CBE JU is financed under the 2021-2027 Multiannual Financial Framework and operates under the rules of Horizon Europe for 2021-2031.

(32) The Processes4Planet (P4Planet) Partnership's aim is to transform the EU process industries in order to achieve circularity and overall climate neutrality at the EU level by 2050 while also enhancing their global competitiveness. P4Planet is public-private partnership established between A.SPIRE (as the private entity) and the Commission in the context of Cluster 4 (Digital, Industry and Space) of Horizon Europe. https://www.aspire2050.eu/p4planet/about-p4planet.

(33) 'Innovative Advanced Materials for Europe (IAM4EU), a Public-Private Partnership (PPP) under Horizon Europe for 2025-2027, with the aim to enhance the innovation of advanced materials, covering production, processes, and sustainability.

technical, scientific and financial support to companies, especially SMEs, seeking to replace hazardous substances with safer alternatives.

The revised Commission recommendation on the framework for SSbD chemicals (2025) will reinforce EU chemical industry competitiveness by making the innovation process towards safer and more sustainable alternatives more efficient. Horizon Europe programmes 2025-2027 will provide about EUR 120 million to support the development, and acceleration of discovery, further enabled by AI and digitalisation, of alternatives to substances of concern.

The Commission will roll out a ***Common Data Platform on Chemicals*** as part of the One Substance, One Assessment initiative, to simplify and make access to chemical data more transparent.

The upcoming Advanced Materials Act to be adopted in 2026 will also stimulate and reward innovation in the chemicals sector. Advanced materials deliver the innovative solutions for a more efficient, sustainable, and competitive industry. The Commission will put forward an Advanced Materials Act establishing a comprehensive framework to support the full value chain from research and development and startups to production and deployment and stimulate and reward innovation in the chemicals sector.

Up to date chemical safety assessments

Innovation plays also a crucial role in advancing chemical safety by improving chemical risk management and supporting the development of safer chemicals. Strengthening collaboration across the chemical value chain is also essential to stimulate innovation in chemical risk assessment. The Partnership for the Assessment of Risks from Chemicals (PARC) is the flagship EU initiative in this area. It brings together ministries, national public health and risk assessment agencies, research organisations and academia.

New Approach Methodologies "NAMs" or animal-free testing approaches offer modern science-based tools to provide information for chemical risk assessment. They are key to accelerating risk assessments and closing information gaps and are cost-efficient tools. The Commission will continue working to modernise chemical testing and to accelerate the transition to animal-free approaches. As part of the One Substance, One Assessment initiative, the Commission will launch a Common Data Platform on Chemicals to improve access to chemical data. In parallel, the Commission will present a roadmap to phase out animal testing for chemical safety assessments by 2026. It will work closely with stakeholders to promote alternative methods, to avoid unnecessary testing and reduce testing costs. The roadmap will outline the needs for test method development and validation for animal-free methods, in line with the request made by the Council.

The Commission will:

- Accelerate and scale up chemical innovation using voluntary EU Chemicals Innovation Hubs (Q1 2026).
- Propose an Advanced Materials Act to stimulate and reward innovation in the chemical sector (Q4 2026).
- Roll out a Common Data Platform for Chemicals as set out under the One Substance, One Assessment package.
- Present a roadmap for phasing out animal testing (Q1 2026).

5. SIMPLIFYING AND STREAMLINING THE REGULATORY FRAMEWORK

Simplification lies at the core of the Commission's regulatory agenda, with a clear target to reduce the administrative burden for business by 25% and for SMEs by 35% until the end of this Commission's mandate.

5.1. "Simplification omnibuses"

The Commission has adopted five "simplification omnibus packages" so far in 2025 to streamline rules and reduce the administrative burden for EU industries. Some of these proposals, in particular those contained in the "first simplification omnibus" of 26 February 2025, are directly relevant for the EU's chemical industry[34]. The "fifth simplification omnibus" of 17 June 2025 addresses aspects of defence and strengthens the possibility for Member States to exempt chemical substances, on their own, in a mixture or in an article, where this is necessary in the interests of defence.

On the day of this Action Plan, the Commission proposes, as a first step, a "sixth simplification omnibus" focusing specifically on the EU chemicals and related legislation: the Classification Labelling and Packaging Regulation[35] (CLP), the Fertilising Product Regulation[36] and the Cosmetics Product Regulation[37]. The proposal simplifies different rules in the chemical *acquis* while ensuring a high level of protection of human health and the environment. For instance, the proposal revises the provisions on mandatory font sizes and line spacing for the labelling of hazardous chemicals under the CLP, to make sure that chemical companies can effectively communicate information on substances and mixtures. This proposal will lead to estimated savings of at least EUR 363 million per year for the chemical industry.

Beyond today's simplification omnibus, the Commission will further simplify EU legislation relevant to the EU chemicals industry. In Q4 2025, the Commission will adopt another omnibus proposal aiming to reduce administrative burden in environmental legislation, which will be also relevant to the EU chemicals industry.

Also, the Commission will, by the end of year, put forward a simplification omnibus facilitating biocontrol in farming. Some aspects, such as facilitated market access for biopesticides, will also be relevant to the chemical industry.

Taxonomy

As part of delivering the "first simplification omnibus", the Commission will soon adopt revised Do No Significant Harm (DNSH) criteria for pollution prevention and control under the Taxonomy for sustainable investments. Specifically, it will clarify and limit the

(34) Proposal for a Directive of the European Parliament and of the Council amending Directives 2006/43/EC, 2013/34/EU, (EU) 2022/2464 and (EU) 2024/1760 as regards certain corporate sustainability reporting and due diligence requirements, COM(2025)81 final.

(35) Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, OJ L 353, 31.12.2008, p. 1.

(36) Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products, OJ L 170, 25.6.2019, p. 1.

(37) Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (recast), OJ L 342, 22.12.2009, p. 59.

scope of Appendix C of the Taxonomy's Climate and Environment Delegated Acts[38] [39] in terms of substances covered. This will significantly reduce the burden to demonstrate alignment with the Taxonomy and facilitate access to sustainable finance.

5.2. Targeted revision of the REACH Regulation

The Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)[40] is the EU's cornerstone legislation regulating chemicals. REACH has contributed to increasing the knowledge on chemicals through registration and evaluation, and to addressing the risk posed by certain chemicals through authorisations and restrictions. However, certain REACH processes have proven to be burdensome for companies, in particular SMEs.

By the end of 2025, the Commission will adopt a proposal for a targeted revision of REACH to simplify the rules and speed up the procedures for industry, taking into account competitiveness, safety, security and sustainability considerations, while ensuring high level of protection of human health and the environment[41].

5.3. The ECHA Regulation

In addition, the Commission is proposing a self-standing Regulation for the European Chemicals Agency (ECHA) to enhance its governance and increase the sustainability of its financing model. The aim is to empower ECHA to carry out its expanding responsibilities effectively, strengthen ECHA's ability to deliver timely and coherent scientific opinions, helping companies plan with greater investment certainty. Simplification of the financing model will enhance ECHA's operational agility and reduce the administrative burden. Improved efficiency will also enable ECHA to provide better services to businesses, particularly SMEs, thereby reducing their compliance costs.

5.4. Providing clarity on PFAS

The scientific assessment of the Universal PFAS[42] restriction by the ECHA's committees is ongoing and scheduled to conclude in 2026. The Commission is committed to presenting

---

([38]) Commission Delegated Regulation (EU) 2023/2486 of 27 June 2023 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities"

([39]) Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, OJ L 442, 9.12.2021, p. 1.

([40]) Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, OJ L 396, 30.12.2006, p. 1.

([41]) See also the Defence Readiness Omnibus Communication, COM/2025/820/final,

([42]) Five national authorities (Denmark, Germany, The Netherlands, Sweden and Norway) submitted to ECHA in January 2023 a restriction dossier for all PFAS.

a proposal as soon as possible after receiving ECHA's opinion, with the overall objective of minimising PFAS emissions.

The Commission will consider PFAS ban in consumer uses such as cosmetics, food contact materials and outdoor clothing. Where adequate alternatives in terms of performance and safety are not available, the continued use of PFAS in industrial applications may be allowed for critical applications, such as health, defence, semiconductors, and other strategic sectors[43], under strict conditions until acceptable substitutes are found. Derogations for uses will need to be accompanied by requirements to reduce emissions at all lifecycle stages to limit the release of pollutants into the environment and by clear incentives to innovate.

The Commission will support industry efforts towards mitigation and remediation, to achieve increased water resilience, to reinforce Ocean health[44] and address pollution of water, soil and air.

To support the transition away from PFAS, the Commission is pursuing a comprehensive strategy that combines regulation with other measures. They will include targeted investment in research, innovation for safe and sustainable alternatives, and enhanced coordination across EU institutions and Member States, expert networks to share knowledge and solutions. EU Innovation Hubs will prioritise action to find safe and sustainable alternatives to PFAS.

The Commission will promote a shift from PFAS towards safer alternatives[45]. The EU must take decisive efforts to clean up sites already strongly polluted by such substances. Cleanup should be based on the polluter pays principle, with public money allocated to clean up orphan sites, where no liable entity could be found. Although remediation efforts are very costly, research and innovation can significantly reduce these costs through novel, including bio-based, technologies, which will be promoted in the Bioeconomy Strategy.

A new EU-wide PFAS monitoring framework will be developed to centralise information, identify pollution hotspots, highlight successful remediation practices, and collect data from relevant legislation. The Commission will explore how to best enhance information sharing and communication on PFAS pollution and substitution and will launch a dialogue bringing together stakeholders to support a holistic view of PFAS-related pollution challenges. Also, to tackle legacy pollution, the Commission will aim to set up a public-private initiative to achieve a technological breakthrough in feasible and affordable methods for the detection and remediation of PFAS.

5.5. Occupational Safety and Health

Occupational safety and health is essential not only for protecting workers' health and safety but also for boosting productivity, enhancing competitiveness, and ensuring a level playing field across industries. This is realised, among others, through the establishment

(43) Communication from the Commission Guiding criteria and principles for the essential use concept in EU legislation dealing with chemicals (C/2024/2894).

(44) See the European Ocean Pact, COM/2025/281 final, p. 8.

(45) See also the European Water Resilience Strategy, COM(2025) 280 final, p. 5-6.

of occupational exposure limits at EU level under the Carcinogens, Mutagens and Reprotoxic Substances Directive (CMRD)[46] and under the Chemical Agents Directive.[47]

The Commission will:

- Adopt an Omnibus proposal for the Chemical Industry (Q3 2025).
- Amend DNSH criteria for pollution prevention and control under the Taxonomy regulation (Q3 2025).
- Adopt a proposal for a targeted revision of REACH (Q4 2025).
- Adopt a proposal for the ECHA Basic Regulation (Q3 2025).
- Adopt a simplification omnibus on plant protection products and accelerate market access for biopesticides (Q4 2025).
- Adopt proposal to reduce administrative burden in environmental legislation (Environmental Omnibus) (Q4 2025).
- Propose a PFAS restriction under REACH on the basis of ECHA's opinion on the 'universal' PFAS restriction dossier.
- Develop an EU-wide PFAS monitoring framework to centralise data as well as promote practical, science-based solutions for a sustainable shift by EU industry (Q4 2026).
- Launch a dialogue bringing together stakeholders to support a holistic view of PFAS-pollution related challenges (Q2 2026).

6. CONCLUSION

Successful implementation of this Action Plan will require a concerted effort from all stakeholders, including the European Institutions, Member States, industry, and civil society. It will be essential to work together to create a favourable business environment, to promote investment in decarbonisation and innovation, to reduce the sector's dependencies, and to provide access to the resources necessary for the transition to a more competitive and sustainable future.

The Commission is committed to working closely with all stakeholders to ensure that this Action Plan is implemented effectively and that its objectives are achieved. For this, the Comission will maintain close dialogue with stakeholders, monitor results of this Action Plan and will ensure its speedy delivery.

By doing so, we can ensure that the EU chemicals industry continues to play a vital role in the EU's economy and society, while also contributing to the achievement of the EU's climate and environmental goals.

***

([46]) Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC), OJ L 158, 30.4.2004.

([47]) Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC), OJ L 131, 5.5.1998, p. 11.