European Commission

2024 Annual progress report

Transition Pathway for the Chemical Industry










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Directorate F – Ecosystems I: Chemicals, Food, Retail
Unit F.2 – Bioeconomy, Chemicals and Cosmetics

Contact: Algreit Dume

Email: GROW-CHEMTP@*ec.europa.eu*

European Commission
B-1049 Brussels

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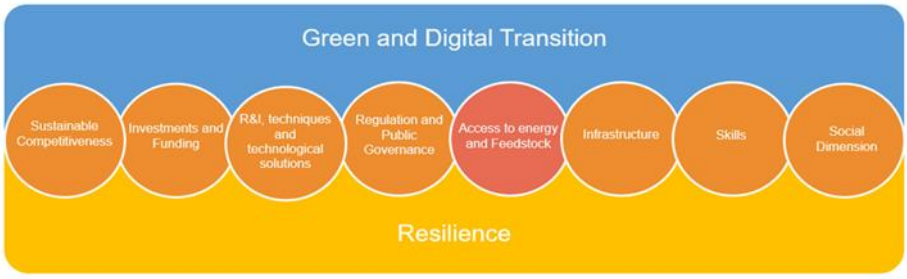
The 2024 annual progress report: transition pathway for the chemical industry

1. Background

In January 2023, the European Commission published the transition pathway for the chemical industry ([1]). It is an actionable plan co-created by the European Commission with EU Member States, the chemical industry itself, non-governmental organisations (NGOs) and other interested parties. The transition pathway identifies **about 190 actions** needed to achieve the green and digital transition of the EU chemical industry and improve its resilience, in line with the objectives laid out in the updated 2020 Industrial Strategy ([2]). The pathway is structured around eight building blocks, based on the blueprint developed by the Industrial Forum Task Force 2 ([3]).

Figure 1 – Building blocks of the transition pathway



Each building block contains a list of topics and corresponding actions. For each action, the transition pathway indicates the timeframe for implementation **(short, medium and long term)** and the actors – **the EU, Member States and industry –** that should implement the action. Indicatively, short term actions are activities that should start as soon as possible. Medium term actions are activities that should start by 2030, while long term actions should be started and completed by 2050.

Following the publication of the transition pathway, the Commission has started working together with stakeholders on its co-implementation. For the first year of this process, the most noteworthy developments have been reported in 2023 Annual progress report ([4]). During the second year of implementing the transition pathway for the chemical industry, the following key developments have emerged as major milestones.

- **Stakeholder Support Platform** – In 2024, the Commission announced the establishment of a new Stakeholder Support Platform to facilitate the twin transition of the EU's chemical industry. The platform provides an overview of recent policies, news, events, funding opportunities and relevant sources to the chemicals ecosystem across the EU and globally. Through the Stakeholder Support Platform, the Commission aims to foster a

([1]) https://single-market-economy.ec.europa.eu/sectors/chemicals/transition-pathway_en
([2]) https://ec.europa.eu/commission/presscorner/detail/en/ip_21_1884
([3]) https://single-market-economy.ec.europa.eu/industry/strategy/industrial-policy-dialogue-and-expert-advice_en
([4]) https://single-market-economy.ec.europa.eu/system/files/2024-05/CHEMTP%20Annual%20Progress%20Report%202023.pdf

collaborative and inclusive approach to the transition, ensuring that all relevant stakeholders are engaged and empowered to contribute to the process ([5]).

- **Transition initiatives** – In 2024, the Commission launched a new call for submission of transition initiatives ([6]) about stakeholders' concrete actions towards the twin transition and increased resilience of the chemical industry. Based on the input received, a new batch of initiatives was published in the recently established Stakeholder Support Platform ([7]). The call will remain open during the entire co-implementation process. The Commission will continue to monitor and review transition initiatives, publishing updates on its website on a regular basis.
- **Working Group on Chemical Industry** – The working group continued discussions and cooperation with stakeholders on the co-implementation of the transition pathway ([8]).
- **Task forces (TFs)** – The task forces set up under the Working Group on Chemical Industry continued their work on specific topics of the pathway, in particular: the TF on international competitiveness took over the activities from the TF on circularity, focusing on alternative carbon feedstocks and developing a list of possible market pull measures to support their uptake. In the meantime, the TF on energy and feedstock finalised its analysis on long-term energy and feedstock needs for the chemical industry, with the publication of the Carbon Managers report ([9]) by the European Chemical Industry Council (CEFIC), showcasing different future scenarios towards climate neutrality.

The purpose of this report is to review and analyse the main results of the co-implementation process in 2024, based on the information collected through the call for transition initiatives, the input provided by the working group and the TFs, as well as desk research. This document will:

- summarise the main results of the call for transition initiatives;
- analyse the progress made and identify the main achievements under each building block of the transition pathway.

A qualitative approach has been applied, based on the criteria in Figure 2.

([5]) The stakeholder support platform is now available online and stakeholders are invited to register and participate in the platform's activities: https://transition-pathways.europa.eu/chemicals. The next Annual Progress Report, to be published no later than Q2/2026, will provide a more detailed presentation of the platform, as its development and launch will be completed by 2025.

([6]) https://ec.europa.eu/eusurvey/runner/Call_for_transition_initiatives

([7]) https://transition-pathways.europa.eu/chemicals/initiatives

([8]) https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?lang=en&groupID=103712

([9]) https://cefic.org/the-carbon-manager/

Figure 2 – Status: assessment criteria

Criteria	
	**Finalised**: actions which have been completed as of the end of 2024
	**In progress**: actions which have been started but not finalised as of the end of 2024
	**Not started**: actions are assessed as not started in case: a) evidence collected through the call and on desk research confirms that the action has not been undertaken; b) no evidence on concrete measures has been found

- Present a revised regulatory roadmap ([10]), highlighting the most relevant legislation for the EU chemical industry in 2024 and related indicative timelines for adoption and implementation. The initiatives announced in the Political Guidelines of the current Commission have not been included ([11]).
- Present the outcome of the analysis carried out by the two TFs.

2. Call for transition initiatives: main results

Almost 300 transition initiatives have been reviewed and published so far on the Stakeholder Support Platform for the EU chemical industry ([12]) since the launch of the co-implementation. However, only the initiatives submitted in 2024 were considered for the purposes of this year's report.

In 2024, the initiatives were largely driven by industry stakeholders, who accounted for more than 95 % of the total. At the country level, the distribution of initiatives was led by Germany,

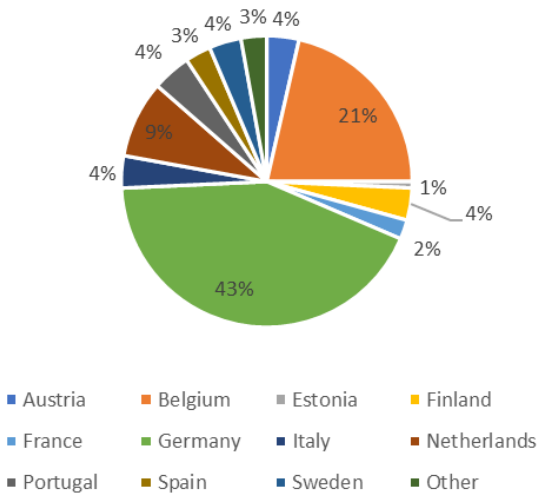
([10]) The transition pathway for the chemical industry (see p. 55-57, link: https://ec.europa.eu/docsroom/documents/54595) contains a roadmap with an overview of existing legislation and major R&I initiatives relevant to the chemical industry. It includes the timeframes for the corresponding legislative and non-legislative procedures. The roadmap was developed using the best available knowledge at the time of writing. The timelines provided in the roadmap are purely indicative.

([11]) https://commission.europa.eu/about/commission-2024-2029_en

([12]) https://transition-pathways.europa.eu/chemicals/initiatives

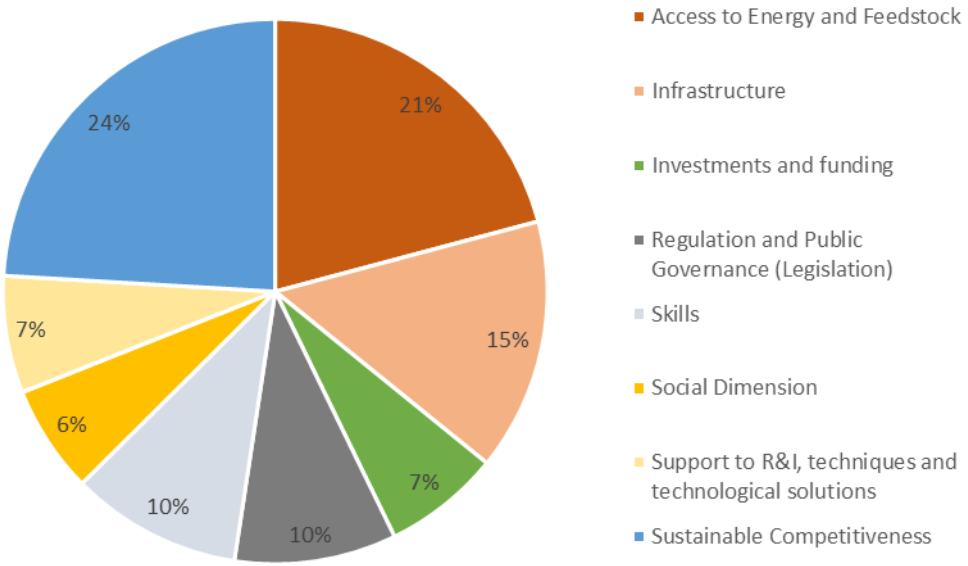
which accounted for 43 % of the total, followed by Belgium (21 %) and the Netherlands (9 %).

Figure 3 – Transition initiatives
(% by submitting country)



Sustainable competitiveness holds the largest share at 24.06 %, highlighting its critical importance in the context presented. It focuses primarily on chemical substitution and activities to test safe and sustainable by design (SSbD) criteria for the development of chemicals and materials. **Access to energy and feedstock** follows closely at 20.86 %, relating to replacing fossil fuels with alternative feedstocks and improving energy efficiency. **Infrastructure** accounts for 14.97 % of the initiatives with contributions relating to the development of green energy (e.g. hydrogen and electrification). The pie chart in Figure 4 details the proportions of transition initiatives under each building block of the transition pathway.

Figure 4 – Transition initiatives
(% by building block)



The initiatives collected through the call do not reflect the breadth of all activities to achieve the twin transition of the EU chemical industry. Instead, they help in understanding the types

of projects companies and organisations are involved in to support the objectives of the transition pathway. The broader picture is presented in the next chapter.

3. Co-implementation of the transition pathway actions

3.1 Sustainable competitiveness

The transition pathway for the chemical industry proposes a set of **45 actions** to address the competitive challenges of the EU chemical industry and improve the safety and sustainability of chemicals and materials. To this end, stakeholders identified **five topics** to be addressed during the co-creation process.

- **Topic 1: International competitiveness**, covering, among others, actions to create a market for sustainable products, promote EU environmental and safety standards globally and measure the competitiveness of the EU's chemical industry and its progress towards the green and digital transition.
- **Topic 2: Reduction of unsustainable dependencies and supply chain vulnerabilities** is addressed by strengthening international cooperation, for example, through free trade agreements and further integration of the EU's single market for energy, waste and secondary raw materials.
- **Topic 3: Safety and sustainability** focuses on substitution to safer chemicals as well as the uptake of safe and sustainable by design (SSbD) chemicals and materials.
- **Topic 4: Innovation and growth of SMEs** covers small and medium enterprises, which represents about 95 % of European companies ([13]). This topic entails actions to unleash the innovation and growth potential of SMEs, including improved cooperation within the start-up ecosystem, and support through the European Innovation Council ([14]) and European Digital Innovation Hubs ([15]).
- **Topic 5: New synergies** within the chemical industry and with other value chains aim to incentivise investments in the circular economy, and in resource and energy efficiency.

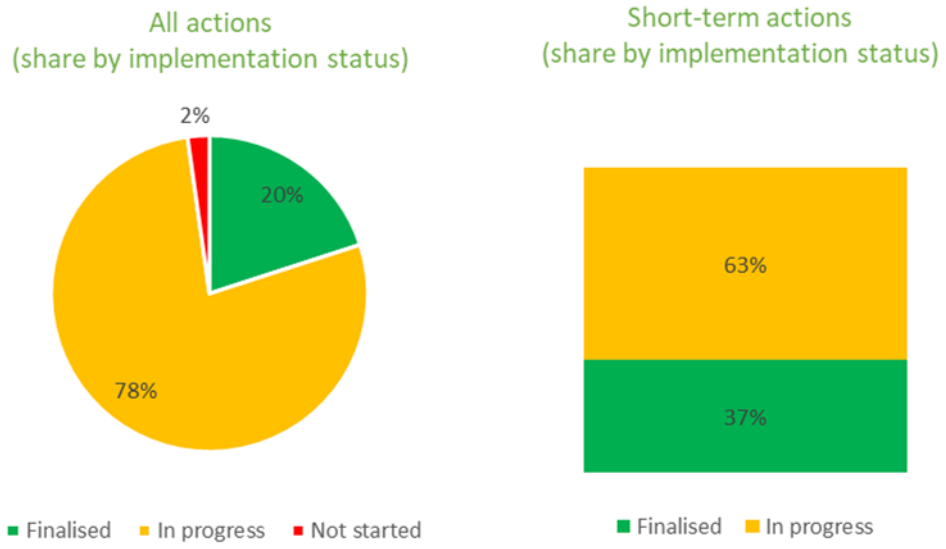
During the second year of co-implementation, more than 75 % of the actions under sustainable competitiveness were launched. The vast majority of the actions are in progress, accounting for 78 % of the total, as highlighted in the table in Figure 5.

([13]) https://single-market-economy.ec.europa.eu/sectors/chemicals/transition-pathway_en

([14]) https://eic.ec.europa.eu/index_en

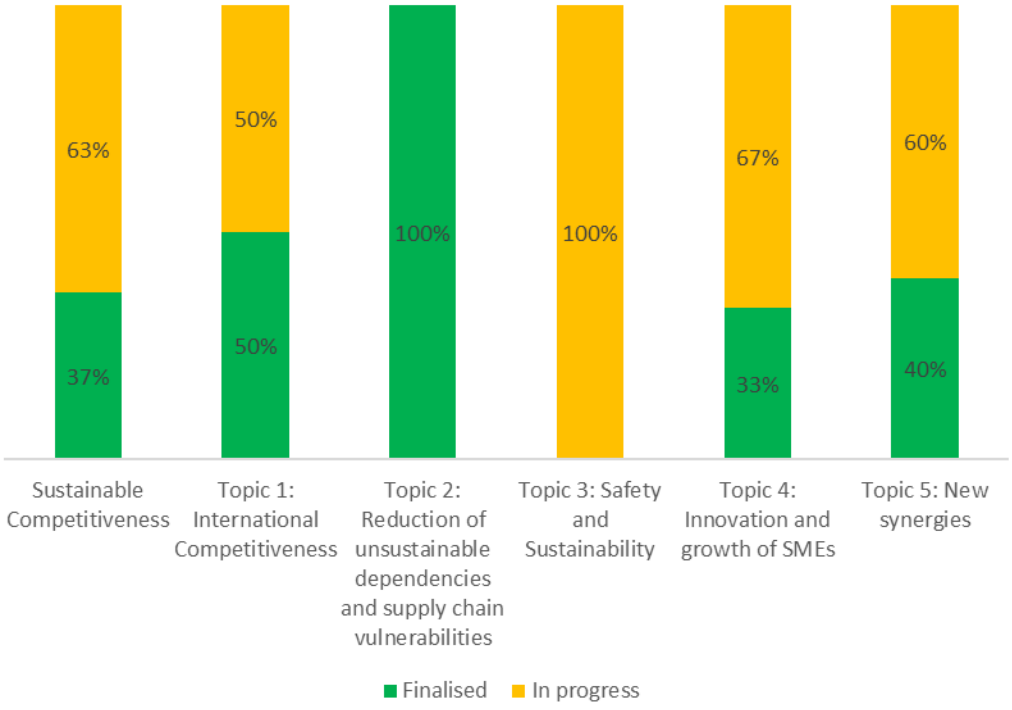
([15]) https://european-digital-innovation-hubs.ec.europa.eu/home

Figure 5 – Status of Sustainable Competitiveness



All short-term actions, representing approximately 42 % of the actions under this building block, have started. About 63 % of these actions are in progress, whereas the remaining 37 % have been finalised. **Topic 2: Reduction of unsustainable dependencies and supply chain vulnerabilities** accounts for the highest share of finalised actions (100 %), followed by **Topic 1: International Competitiveness** with 50 % of actions as finalised. **Topic 3: Safety and Sustainability** follows with all its actions being in progress, while **Topic 4: Innovation and growth of SMEs** and **Topic 5: New Synergies** count 33 % and 40 % of their actions as finalised:

Figure 6 – Status of topics in Sustainable Competitiveness
(share by co-implementation status of the short-term actions)



EU actions

The most relevant contribution by the Commission in the second year of co-implementation have been the following:

- **Critical Raw Materials Act**

The entry into force of the Critical Raw Materials Act in May 2024 ensures the EU has a secure, diversified and sustainable supply of critical raw materials by strengthening the entire value chain and enhancing resilience.

- **Net-Zero Industry Act**

The Net-Zero Industry Act entered into force, offering a clearer investment landscape for clean technologies and industrial decarbonisation, including applications in chemical manufacturing. It establishes the Net-Zero Europe Platform ([16]), a governance body that comprises the Commission and EU Member States to monitor progress, discuss developments and engage with civil society stakeholders. The platform advises on financing for net-zero strategic projects and engages in international net-zero industrial partnerships to facilitate a global clean energy transition.

Stakeholder actions

- **Topic 1: International competitiveness** accounted for the second largest number of finalised actions, with a 50 % completion rate. Actions under this topic recorded 21 % of submissions; most of them by industry and EU Member States. They reflect on the EU chemical sector's transition towards climate-neutrality and circularity with the iC2050 project and a list of sustainable development indicators which focus on a) low carbon economy, b) resource efficiency, c) circular economy, d) care for people and planet, and e) prosperity and competitiveness.
- **Topic 2: Reduction of unsustainable dependencies and supply chain vulnerabilities** presented the absolute number of finalised actions, with 5 % of submissions. This refers to a report highlighting value chains that are strategic to the EU economy.
- **Topic 3: Safety and sustainability** represented 16 % of submissions and all of them are in progress. Most initiatives were submitted by trade and business associations and centred on the **substitution of hazardous chemicals**, **responsible sourcing**, and **implementation of SSbD** approaches. Several initiatives referenced participation in the international ecosystem for accelerating the transition to Safe-and-Sustainable-by-Design materials, products and processes (IRISS) project, funded by the EU and aiming to create an SSbD stakeholder network across industry, research and policy.
- **Topic 4: Innovation and growth of SMEs** was the most active topic under this building block in 2024, with 32 % of submissions, the **highest number between the topics of the building block**. Most initiatives were submitted by SME clusters or regional innovation networks. These initiatives focused on facilitating **digital and sustainable transformation**, improving **access to EU funding** and enhancing **commercial readiness for clean and circular products**.

([16]) https://single-market-economy.ec.europa.eu/industry/sustainability/net-zero-industry-act/net-zero-europe-platform

- **Topic 5: New Synergies** accounted for 26 % of submissions and remained particularly relevant for **large companies**, which accounted for all submissions under this topic. Actions focused on cross-sectoral collaboration, especially in **joint decarbonisation infrastructure projects**, **electrification of high-emission processes** and **CO2 network development**.

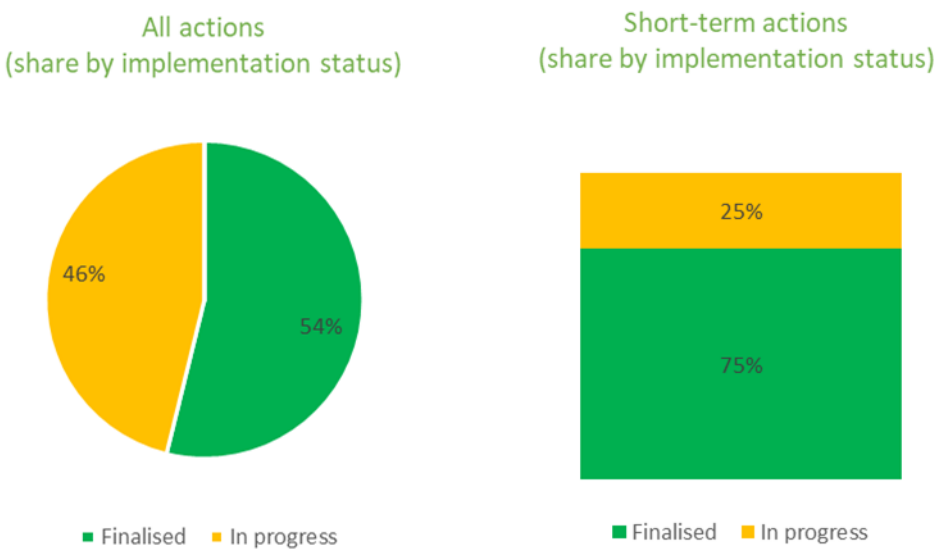
3.2 Investment and funding

The EU chemical industry requires high capital expenditure (CAPEX) for initial investments, combined with higher operational expenditure (OPEX) to modify its production processes to purchase energy and feedstock from alternative sources as well as major research and innovation (R&I) investments to develop new safe and sustainable products. The pathway identifies **13 actions** to increase investors' confidence and improve financial support for the green and digital transition, grouped into two topics.

- **Topic 6: Fund for green investments** includes actions to support the dismantling and retrofitting of existing assets, incentivising projects in cross-sectoral low-carbon technologies and implementing the EU taxonomy ([17]) to provide more certainty and predictability in green investments.
- **Topic 7: Access to funding** includes actions to improve assistance to chemical companies, especially SMEs, by enhancing their access to public and private funding through strengthened communication channels and better coordination at both the EU and national levels.

Significant progress has been made under investment and funding, with 46 % of the actions in progress and 54 % finalised. All pending actions have a medium timeframe for implementation in the pathway, while all short-term actions have been launched and 75 % of them have been already finalised.

Figure 7 – Status of Investment and Funding

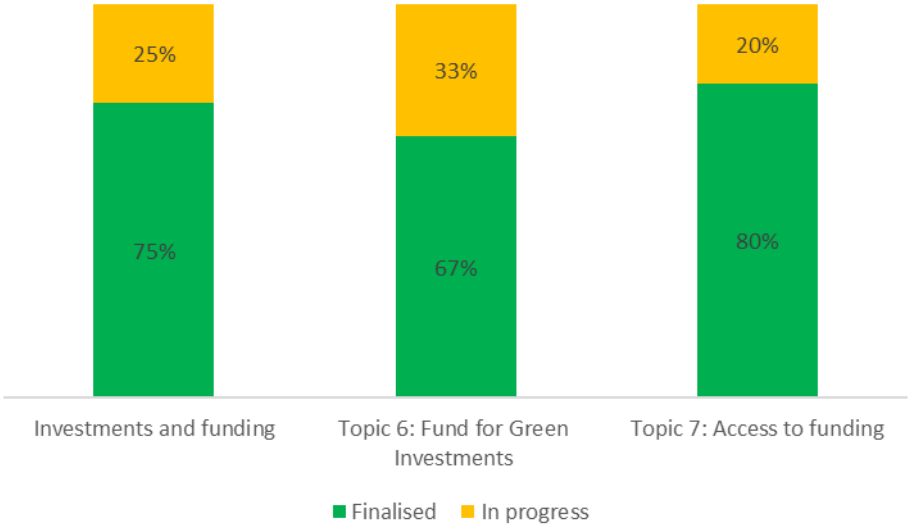


Topic 7: Access to funding has most of its short-term actions finalised, while 20 % of them are in progress. These include both EU and industry initiatives to strengthen communication

([17]) https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

for European funding opportunities. Similarly, close to one third of the actions under **Topic 6** are in progress, while the rest have been finalised.

Figure 8 – Status of topics in investment and funding
(share by co-implementation status of the short-term actions)



EU actions

The European initiatives that most contributed to the co-implementation of this topic are:

- Under the **Innovation Fund**, a **EUR 4.8 billion** award was granted in October 2024 to 85 large-scale net-zero projects – covering key industrial sectors including hydrogen, industrial carbon capture and chemicals ([18]).
- As part of state support reform, the Commission approved multiple **state aid schemes under the Temporary Crisis and Transition Framework (TCTF)** designed to de-risk green investments in heavy industry. These include a **EUR 750 million Dutch scheme** (July 2024) and a **EUR 1.2 billion Polish scheme** (September 2024), both aimed at industrial decarbonisation. In late 2024, an additional **EUR 1.5 billion French state aid scheme** was cleared under the same framework, now expanded to cover sustainable biomethane and related clean-energy measures.
- **EU taxonomy stakeholder request mechanism:** First launched in October 2023, this mechanism remained active throughout 2024 to gather real-time stakeholder input on the EU taxonomy framework. In November 2024, the Commission published detailed FAQs clarifying the technical screening criteria and disclosure obligations, aiming to simplify implementation and reduce compliance burdens.
- Entry into force of the **Strategic Technologies for Europe Platform (STEP)** through Regulation (EU) 2024/795 to coordinate and steer investment across 11 EU funding programmes in digital, clean tech and biotech sectors.
- Proposal for a European Competitiveness Fund (July 2024), designed to utilise the next Multiannual Financial Framework (2028–2034) to support strategic technologies (AI, clean industry, biotech) through Important Projects of Common European Interest (IPCEIs),

([18]) https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5423

reducing financing risks and accelerating deployment, with first IPCEI rounds taking place in early 2025.

Stakeholder actions

- **Topic 6: Fund for Green Investments** received some of the most technically advanced submissions in 2024, mainly from large industrial stakeholders. It accounted for **38 % of the submissions** under this building block. The reported projects centred on the decarbonisation of legacy chemical production infrastructure through retrofitting of existing assets, electrification of energy-intensive processes, and integration of carbon capture, utilisation and storage (CCU/CCS) systems. Several initiatives described the conversion of large-scale plants to low-carbon operation, including nitric acid production facilities, with targeted reductions in process emissions of over 80 %. Many of these actions are co-financed through EU instruments such as the Innovation Fund and Horizon Europe, as well as national energy transition schemes, as most of the submissions derived from EU Member States.
- **Under Topic 7: Access to funding**, which accounted for **63 % of submissions** under this building block, several industry associations reported initiatives to improve access to EU funding. These included the development of online tools, coordination through the Transition Pathway Working Group, and dissemination of tailored information about relevant calls (e.g. Horizon Europe, Hydrogen Bank, Innovation Fund).

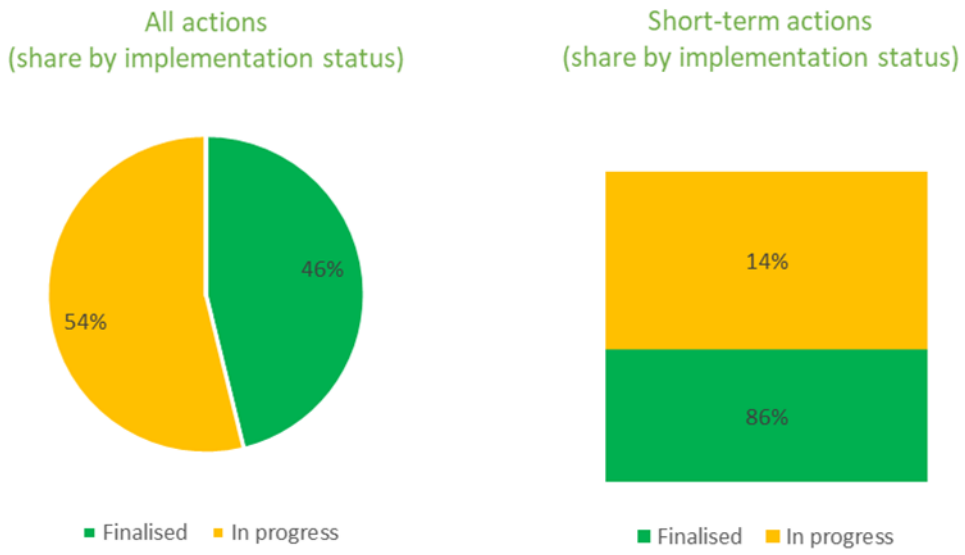
3.3 Research and innovation

The EU chemical industry needs to adopt and scale up new techniques and technological solutions to achieve its green and digital transition. For this reason, the transition pathway suggests a set of **13 actions** to develop an effective policy agenda and address R&I barriers in the chemical industry. These actions are grouped by technology readiness levels (TRLs) under three topics**.**

- **Topic 8 (TRL 1-5: Conceptualisation)** focuses on co-developing SSbD frameworks through shared expertise in safety testing, chemical risk assessments and the creation of industrial technology roadmaps.
- **Topic 9 (TRL 6-7: Development)** emphasises stakeholder-driven collaboration and partnerships, underpinned by targeted financial and regulatory support, to advance new technologies – especially in renewable energy / feedstocks and circular-economy solutions.
- **Topic 10 (TRL 8-9: Deployment)** prioritises streamlined permitting processes, market-pull incentives and active industry participation in information exchanges via the Innovation Centre for Industrial Transformation and Emissions (established under the revised Industrial Emissions Directive).

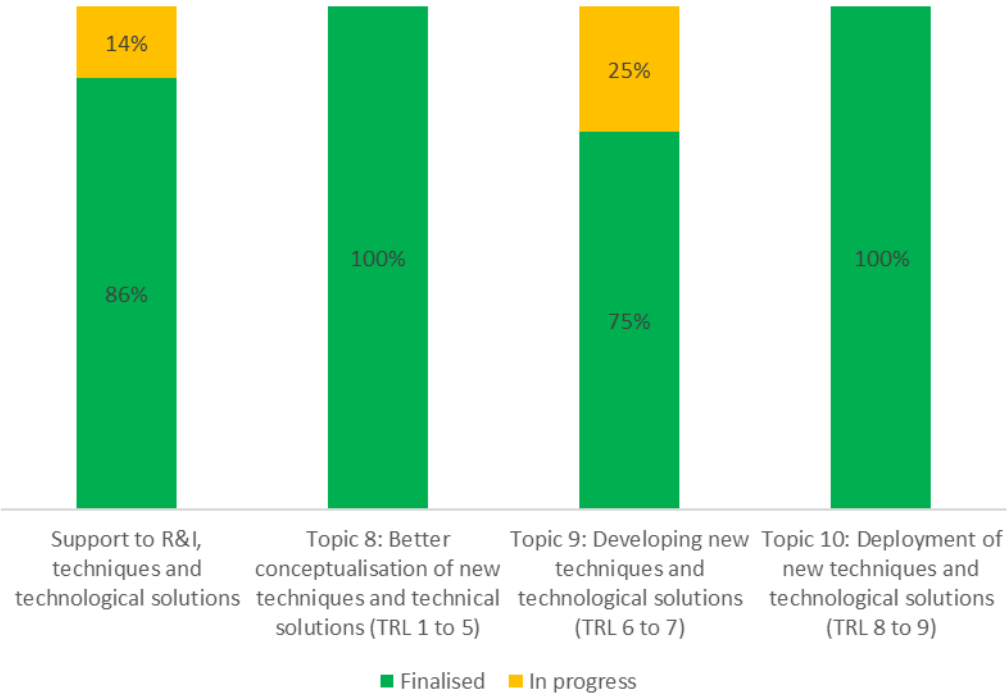
To date, all the actions under this building block have started: 54 % are in progress, whereas 46 % are finalised. All the short-term actions have started and the majority of them are finalised.

Figure 9 – Status of Research and Innovation



Topics 8 and **10** present the highest share of finalised short-term actions, corresponding to 100 % of their respective total, while for **Topic 9,** 75 % is finalised and only 25 % remains in progress. These include, for instance, the automation of the handover of the digital twin of production equipment from the equipment manufacturer to the owner/operator.

Figure 10 – Status of topics in research and innovation
(share by co-implementation status of the short-term actions)



EU actions

- Communication COM(2024) 98 final on **Advanced Materials for Industrial Leadership** details a comprehensive five-pillar approach – from lab research to market deployment – aimed at accelerating EU innovation in chemicals and materials.
- Publication of the **methodological guidance for practitioners on the SSbD framework** by the European Commission's Joint Research Centre (JRC) offers structured assessment tools for early-stage chemical and material design to better embed safety and circularity considerations.
- Ongoing implementation of the **Strategic Research and Innovation Plan (SRIP)** for chemicals and materials underpins key Horizon Europe partnerships such as **Partnership for the Assessment of Risks from Chemicals (PARC)**, **Process4Planet** and **Innovative Materials 4 EU.**

Stakeholder actions

- **Topic 8** accounted for 29 % of submissions under this building block in 2024. Examples of submissions include sectoral roadmaps focusing on the development of technological pathways to achieve net zero in the fertilisers sector and the development of national transition pathways.
- **Topic 9** received 57 % of submissions, largely driven by industry-led pilot and demonstration projects. Examples include a coordinated initiative that brings together research organisations and industry to advance sustainable carbon sources, digitalisation and process automation within the industrial sector. In addition, collaborative projects focus on improving data exchange and operational efficiency across the value chain, while funding programmes support activities from early-stage pilots to large-scale demonstrations. Strategic R&I priorities are integrated into broader transition pathways, ensuring alignment between technological progress and long-term policy objectives.
- **Topic 10** was referenced by a smaller number of forward-looking stakeholders (14 % of submissions), particularly in relation to the establishment of an innovation centre that will gather and assess information on innovative and emerging industrial techniques, fostering synergies across EU innovation and environmental policies.

3.4 Regulation and public governance

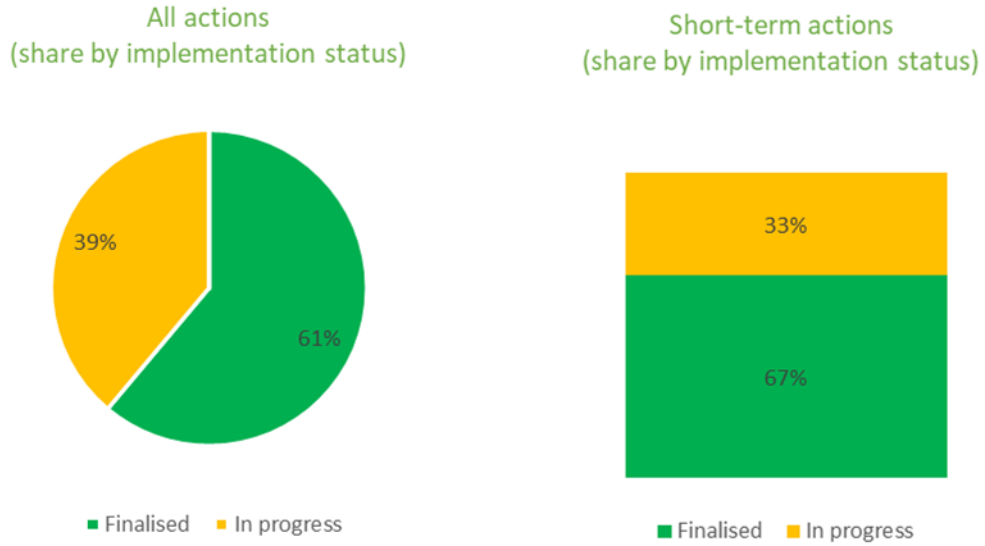
Regulation and public governance are a key enabler to achieve transition. During the co-creation, stakeholders suggested that legislative barriers to this transformation relate to three main topics:

- **Topic 11: More effective and predictable legislation** requires policymakers and industry to collaborate on defining concepts, definitions and methods under chemical legislation.
- **Topic 12: Vertically and horizontally coherent legislation** ensures consistency between EU and national legislation (vertical coherence) and legislative harmonisation across entire economic sectors or entire value chains (horizontal coherence).
- **Topic 13: Effective and efficient enforcement** involves a broad set of actions focusing on developing analytical methods, among others, especially for imported products and

online sales of consumer products, as well as using digital tools to support market surveillance and customs authorities.

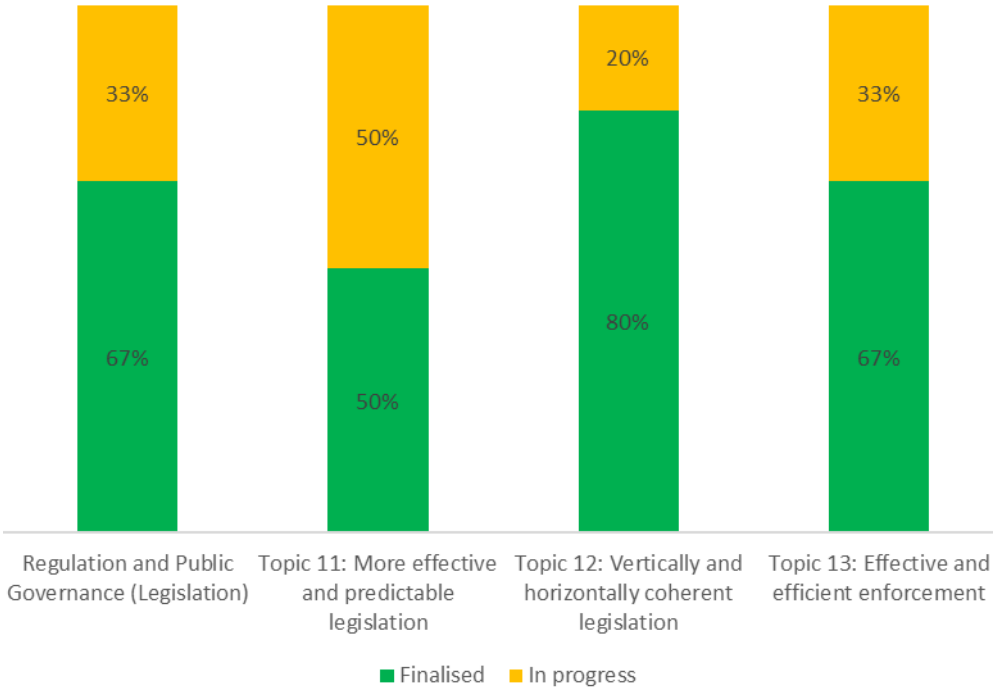
All actions under this building block have started, with 61 % already completed. The progress reported is in line with the expected timeframe for implementation indicated in the pathway as approximately 70 % of the overall actions are short term.

Figure 11 – Status of Regulation and Public Governance



Most of the finalised short-term actions of this building block fall under **Topic 12**, where 80 % has already been completed and the rest are in progress (20 %). These include the development of a regulatory roadmap to provide an integrated view of the EU regulatory framework applied to the chemical industry (see section 4). Similarly, around 50 % of the actions under **Topic 11** are finalised, whereas **Topic 13** counts 67 % of its actions as finalised**.**

Figure 12 – Status of topics in regulation and governance
(share by co-implementation status of the short-term actions)



EU actions

Building on the chemicals strategy for sustainability and the European Green Deal, the European Commission's 2024-2029 agenda firmly integrates the EU chemical industry into its priorities for sustainable prosperity, competitiveness and resilience. As outlined on the Commission's official priorities page, key goals include deepening the single market, accelerating investment in green and digital transitions, and placing research and innovation at the core of industrial policy. Further details are provided in the respective sections of this chapter.

Stakeholder actions

- **Topic 11: More effective and predictable legislation** accounted for 33 % of submissions under this building block. Actions were mostly submitted by industrial stakeholders. Industry and civil society stakeholders have contributed position papers and reports offering interpretations of key concepts referenced in recent policy initiatives. These discussions have been supported through expert group meetings under the relevant transition pathway. Current policy developments include work on sectoral strategies for climate neutrality, setting a 2040 emissions reduction target of 90 % and ongoing revisions of regulatory frameworks on chemicals.
- **Topic 12: Vertically and horizontally coherent legislation** remained a priority with around 42 % of submissions, with stakeholders contributing to the regulatory roadmap, which tracks and aligns legislative developments relevant to the sector. This living document is discussed in transition pathway co-implementation meetings and helps identify interlinkages between climate, circularity and chemicals policy files. In parallel, EU institutions advanced work on the common data platform for chemicals – a cross-sector data infrastructure aimed at improving data interoperability, transparency and policy monitoring.
- While actions under **Topic 13** represent 25 % of submissions, some trade associations indicated their willingness to engage in developing and sharing **best practices for non-regulatory enforcement measures**, such as voluntary stewardship schemes and digital tools for chemical compliance. These discussions are expected to mature through further coordination with **market surveillance authorities** in the coming implementation phases.

3.5 Access to energy and feedstock

The EU chemical industry has already made progress towards net zero. However, it is still the third largest emitter in the EU due to the sector's energy input consumed as feedstock ([19]). To this end, the Pathway lists **23 actions** grouped under four topics:

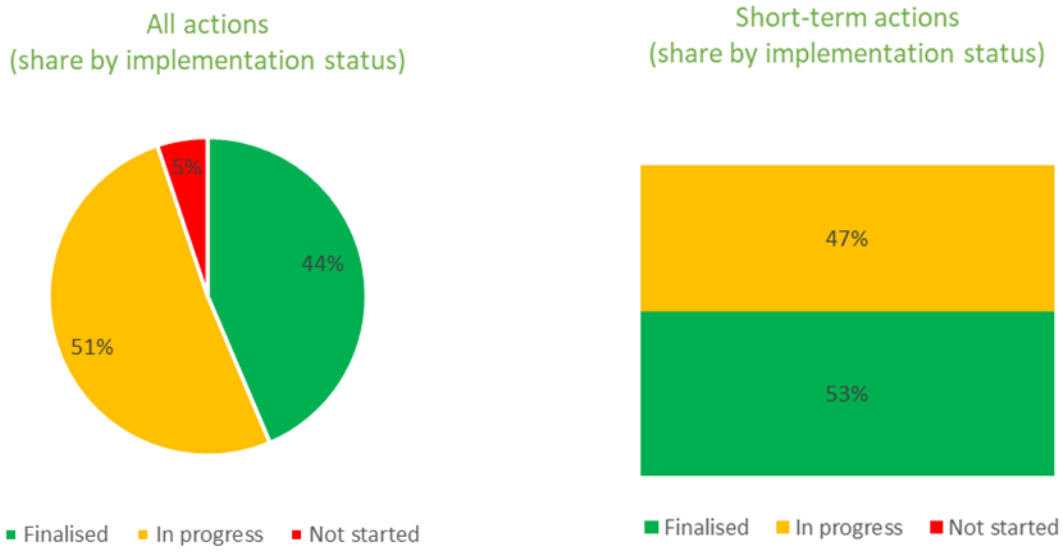
- **Topic 14: Anticipate long-term needs for the supply of energy and feedstock resources**, including a quantitative assessment of such needs and the related impacts of energy prices.
- **Topic 15: Prioritise economically viable purchases of clean energy**, particularly cost-competitive climate-neutral electricity and hydrogen with a low carbon footprint.

([19]) https://single-market-economy.ec.europa.eu/sectors/chemicals/transition-pathway_en

- **Topic 16: Develop feedstock substitution** including actions aimed at identifying new and sustainable sources of feedstock as well as further developing feedstocks such as biomass, waste and CO2.
- **Topic 17: Enhance process and resource efficiency** through new business models, separation technologies, novel catalysis and by promoting industrial symbiosis.

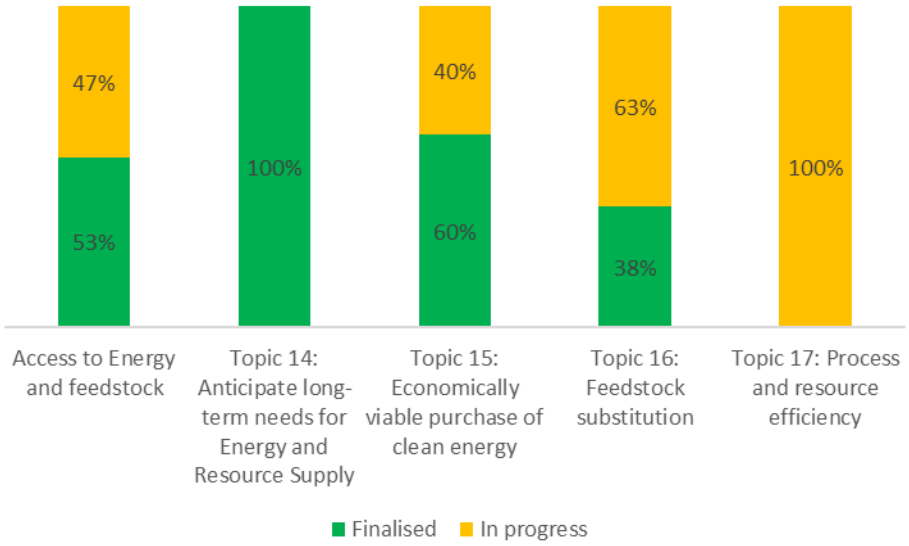
Since the beginning of the co-implementation process, stakeholders agreed that this building block has the highest priority in the transition agenda. As approximately half of the actions under this building block have a short-term timeframe for implementation, its track is progressing successfully, with 51 % of overall actions in progress and only 5 % yet to start.

Figure 13 – Status of Access to Energy and Feedstock



Significant progress has been reported on short-term actions, with **Topic 14** showing the highest share (100 %) of finalised short-term actions. These primarily relate to future policy efforts that assess energy and alternative feedstock needs for sustaining chemical production and evaluating the effects of rising energy costs. In parallel, the majority of the short-term actions under **Topics 15 and 17** have been launched, with 40 % and 100 % in progress respectively. Additionally, 63 % of short-term actions under **Topic 16** have been finalised and the remaining are in progress. These actions entail the development of harmonised international certifications and standards to promote alternative feedstocks as well as the assessment of the economic and technical potential of third-generation biomass.

Figure 14 – Status of topics in access to energy and feedstock
(share by co-implementation status of the short-term actions)



EU actions

- **Adoption of revised electricity market design rules** (Topic 15 / Topic 18): In May 2024, the Council formally adopted Regulation (EU) 2024/1747 and Directive EU/2024/1711, which entered into force on 16 July 2024. These new rules enhance long-term pricing stability for consumers and industry by enabling dynamic pricing, facilitating power purchase agreements (PPAs) and introducing two-way contracts-for-difference (CfDs) to support renewable energy investments – critical for securing clean energy feedstocks for chemical production.
- **Progress on the Social Climate Fund (SCF)** (Topic 15): In June 2024, Member States submitted their first **social climate plans**, detailing investment schemes in building efficiency, clean heating, sustainable mobility and small-business energy upgrades. Progress is being monitored ahead of disbursements, expected to stretch over the 2026–2032 period and mobilise EUR 86.7 billion in support.
- **Renewable energy and hydrogen infrastructure development** (Topic 15 / 18): In 2024, the European Hydrogen Bank became operational, financing green hydrogen projects that are critical for providing alternative feedstock for chemical processes. Additionally, the Commission's implementation of Electricity Market Design reforms prioritises grid permits and renewable capacity growth (targeting 100 GW/year until 2030) to support electrification of feedstock supply chains.
- Biotechnology and biomanufacturing strategy: In March 2024, the European Commission adopted the Communication 'Building the future with nature: Boosting Biotechnology and Biomanufacturing in the EU' (COM (2024) 137 final), setting out measures to strengthen Europe's leadership in sustainable biotechnologies. The initiative proposes actions to improve regulatory frameworks, scale up innovation and investment and foster competitive biomanufacturing capacity, positioning biotechnology as a key enabler of the EU's green and digital transitions.

Stakeholder actions

- **Topic 14** saw continued engagement by industry and EU Member States through the dedicated TF on energy and feedstock (TF2). Stakeholders contributed an approximate

18 % of submissions, focusing on quantitative analyses on energy and alternative feedstock needs and assessments of energy price impacts. These efforts support a forward-looking strategy for maintaining the competitiveness and resilience of the EU chemical sector's supply chains.

- **Topic 15** remained highly active with approximately 29 % of submissions, with companies and public authorities reporting initiatives focused on the **use of PPAs**, investments in **clean electricity** supply and actions linked to the initiative **RePowerEU**. Guidance on PPAs is currently being developed at the EU level, while finalised EU funding mechanisms such as **InvestEU** were reported as supporting SMEs' access to green energy investment opportunities.
- **Topic 16** had the **largest share of submissions** within this building block, accounting for more than 45 %, driven primarily by actions from **large companies and SMEs**. More than 70 % of the reported initiatives under this topic relate to recent developments that highlight growing activity in the bio-based and algae sectors, with industry and research stakeholders advancing innovation, circular economy applications and market integration. In addition, submissions under this building block highlight that collaborative platforms and initiatives have promoted knowledge exchange, pilot deployment and regulatory dialogue. Moreover, policy-related submissions show that actions focus on the EU's progress in defining non-fossil carbon sources and establishing methodologies for calculating carbon feedstock shares under the Renewable Energy Directive and related implementing acts, thereby strengthening the framework for sustainable carbon and energy systems.
- Under **Topic 17**, although only 6 % of submissions were received, stakeholders highlighted actions to rethink business models and identify potential enablers.

3.6 Infrastructure

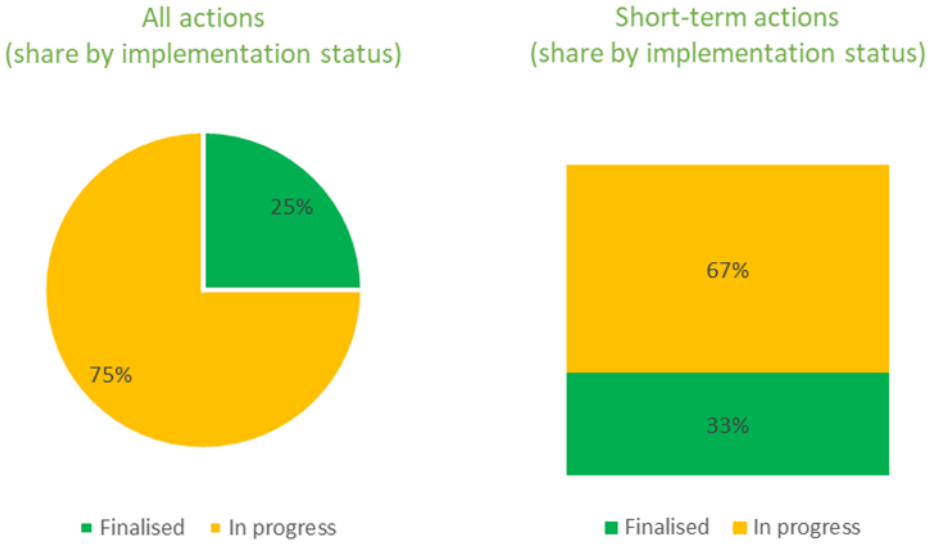
The EU chemical industry will require the necessary infrastructure to access renewable energy and alternative feedstocks beyond fossil carbon. The pathway lays out **28 actions** to build the infrastructure needed for the twin transition under the following topics.

- **Topic 18: Large scale electricity and hydrogen infrastructure** enables access to clean energy from all chemical sites. Cross-border interconnectors, new storage capacity and new and retrofitted pipelines are key to providing the industry with renewables.
- **Topic 19: Development of new and sustainable production facilities** includes recycling facilities and bio-refineries. Accelerated and simplified approval procedures can provide security planning for new infrastructure projects.
- **Topic 20: Sustainable transport of raw materials and chemical products** requires pan-European rail infrastructure development. Financial and regulatory support for green freight transport is needed, together with an increase in the availability and capacity of multi-modal terminals serving industrial clusters.
- **Topic 21: Deployment of digital technologies** encompasses the internet of things (IoT), big data, artificial intelligence, smart sensors, digital twins and robotics. Partnerships between the chemical industry and digital solution providers, along with data platforms and interoperability standards, are fundamental for digitalising chemical manufacturing.

- **Topic 22: Circularity through recycling and re-use of infrastructure** requires a set of regulatory actions, such as implementing the Waste Framework Directive and Waste Shipment Regulation, as well as funding support to develop the infrastructure for waste-as-feedstock uptake and carbon capture, utilisation and storage (CCUS) technologies.

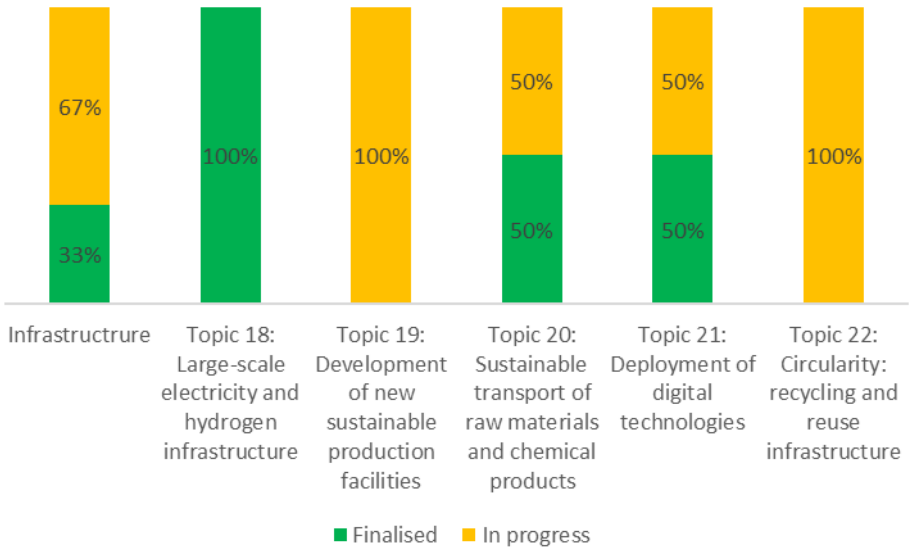
The co-implementation of more than 70 % of the actions of this building block is under way, with 25 % finalised.

Figure 15 – Status of Infrastructure



Most of the finalised short-term actions fall under **Topics 18, 20** and **21** and include the identification of hydrogen infrastructure needs, the sustainable transport of raw materials and the deployment of digital technologies. All the actions under **the remaining topics** are in progress.

Figure 16 – Status of topics in infrastructure
(share by co-implementation status of the short-term actions



EU actions

- **EU 2040 climate pathway strategy**: In February 2024, the European Commission issued the Communication 'Securing our future – Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society' (COM (2024) 63 final), which sets out a long-term vision beyond 2030 by defining a 2040 emissions target, outlining policy building blocks for industry decarbonisation, sustainable mobility, land use and bioeconomy, and calling for investment, inclusivity and global climate leadership to ensure a fair and feasible transition to net zero by mid-century ([20]).
- **Industrial carbon management strategy:** On 6 February 2024, the European Commission adopted the Communication 'Towards an ambitious Industrial Carbon Management for the EU' (COM (2024) 62 final), which lays out a comprehensive EU-level strategy to scale up carbon capture, utilisation, storage and removals – including setting a 2030 goal of capturing and storing at least 50 million tonnes of CO2 annually and mapping investment, infrastructure and regulatory frameworks to underpin a competitive industrial carbon management value chain that supports climate neutrality by 2050 ([21]).
- **Second Projects of Common Interest (PCI)/Projects of Mutual Interest (PMI) call under the TEN-E Regulation** (Topic 18): The Commission launched a new call inviting project promoters to propose electricity, hydrogen, CO2, and smart grid projects for inclusion in the forthcoming Union list of Projects of Common and Mutual Interest – linked to the 2024 Ten-Year Network Development Plans.
- **Expansion of CO2 transport and storage infrastructure projects** (Topics 18 and 22): A total of 19 cross-border CO2 transport and storage initiatives applied for PCI/PMI status, covering 17 Member States and two non-EU partners – aimed at facilitating quicker deployment under TEN-E Regulation rules.
- **Net-Zero Industry Act** (Topics 18 and 19): The act establishes streamlined permitting via national single points of contact, strategic net-zero project designation, CO2 storage targets (≥ 50 Mt by 2030) and regulatory sandboxes, thereby boosting manufacturing and infrastructure for clean tech.
- **European Hydrogen Bank: second auction** (Topic 18): The auction resulted in EUR 992 million awarded to 15 projects spanning transport, methanol, ammonia and maritime hydrogen applications. These awards, ranging from EUR 8 million to EUR 246 million, support approximately 2.2 megatonnes of renewable hydrogen annually, boosting hydrogen infrastructure rollout.
- **Innovation Fund 2024 call for net-zero technologies** (Topics 18, 19, 22): The fund allocates EUR 2.4 billion for decarbonisation and clean tech manufacturing projects (renewables, energy storage, hydrogen, CCUS), including dedicated small-scale funding of EUR 100 million.

([20]) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2024%3A63%3AFIN

([21]) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52024DC0062

Stakeholder actions

- **Topic 18** accounted for 13 % of submissions. Initiatives focused on pilot mechanisms for renewable and low-carbon hydrogen to collect and provide access to information about demand and supply.
- **Topic 20 tracked the second largest share of submissions accounting for approximately 27 %.** Industry associations advanced analytical tools to support policy and investment decisions for greener logistics. One reported initiative used publicly available transport performance data and scenario modelling to evaluate the potential of shifting chemical freight from road to rail and inland waterways. These insights are intended to inform national infrastructure managers and policymakers on modal shift potential and associated greenhouse gas savings.
- **Topic 21** saw high engagement with 13 % of submissions, mostly deriving from large companies, consortia and industry associations. All submissions came via the call for transition initiatives and included blockchain-based traceability platforms, digital product passports for chemicals and data-sharing frameworks aligned with European data spaces. Several projects also aim to integrate carbon footprint data into wider sectoral KPIs, enabling more transparent reporting and compliance monitoring.
- **Topic 22** was the most prominent topic, with submissions accounting for approximately 40 %. Stakeholders, especially EU Member States, reported significant regulatory progress in waste feedstock management and advanced recycling technologies. Examples included the adoption of the Waste Shipment Regulation and the Waste Framework Directive. Several of these initiatives are linked to the Innovation Fund, STEP and Horizon Europe's Hubs4Circularity calls.

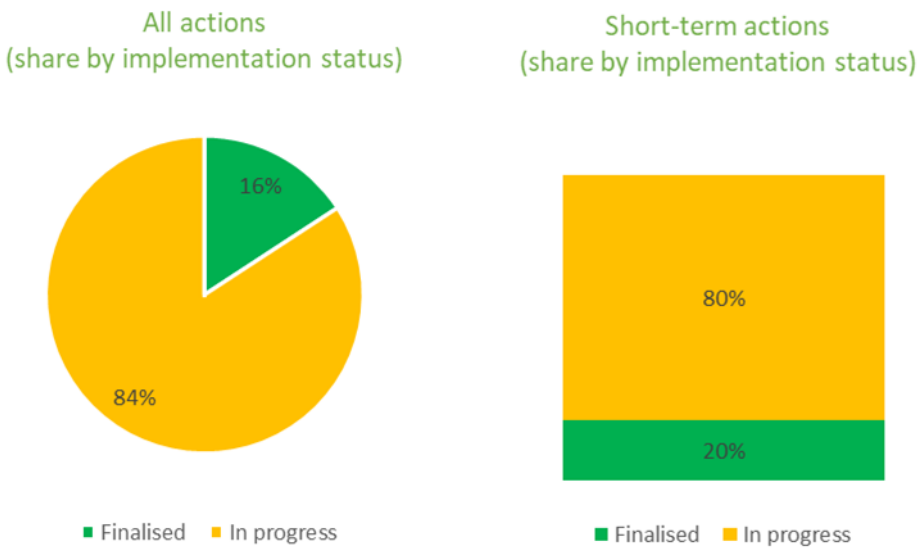
3.7 Skills

Green skills, digital skills and competences to produce SSbD chemicals will be required to support the transformation of the EU chemical industry. SMEs often lack the skills capacity to make the necessary organisational changes for the twin transition. The transition pathway highlights the main topics to be addressed for skills.

- **Topic 23: Upskilling and reskilling of the workforce** requires training across all levels of seniority in the industry to meet the demands of both regulators and society for achieving a more sustainable chemical industry. Sectoral roadmaps for skills as well as education support would be needed to bridge the gap between the fast-changing new skills demanded by companies.
- **Topic 24: Sufficient supply of jobs at the technical level** requires corporate training, recruiting and retaining strategies to attract and keep talents in the chemical industry.

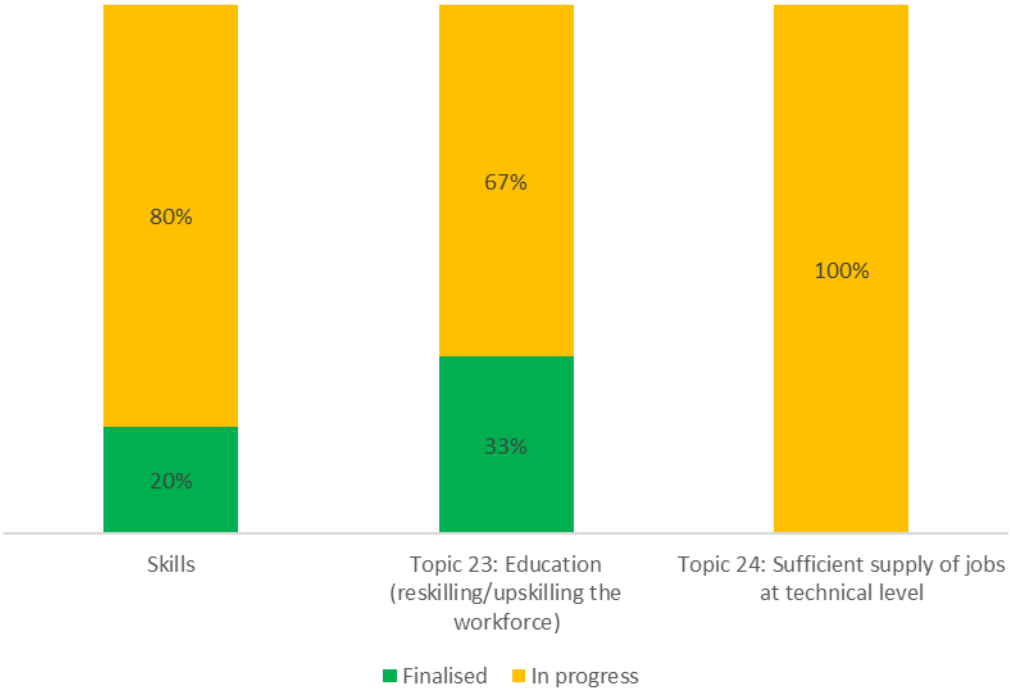
More than 80 % of the actions under this building block have been launched, with 16 % finalised. The status of the skills building block is shown in Figures 17 and 18.

Figure 17 – Status of skills



Several short-term actions on education have been finalised, accounting for 33 % of **Topic 23**. The remaining short-term actions are in progress. However, the lack of green and digital skills needed to realise the full potential of clean-tech and digital solutions remains a challenge that needs to be addressed. According to the European Monitor of Industrial Ecosystems (EMI) report on energy intensive industries ([22]), only around 6 % of the professionals have skills relevant for the green transition, while 4 % have advanced digital skills in areas such as artificial intelligence, cloud computing, robotics, IoT, etc.

Figure 18 – Status of topics in skills
(share by co-implementation status of the short-term actions)



([22]) https://monitor-industrial-ecosystems.ec.europa.eu/sites/default/files/2023-12/EMI%20EII%20industrial%20ecosystem%20report.pdf

EU actions

- **Pact for Skills** launches and expands activity (**Topics 23 and 24**): In early 2024, the Commission hosted the first Pact for Skills Forum (21–22 March, Brussels), bringing together industry, public authorities and education providers – including the European Chemical Regions Network – to strengthen sectoral skills partnerships and feature deep-dive workshops in key ecosystems such as chemicals and space. By mid-2024, the Pact for Skills had grown to 3 200 member organisations, including 20 large-scale and regional skills partnerships. These members together delivered 47 800 new or updated courses, reached 2.6 million individuals, and invested EUR 650.4 million in upskilling and reskilling – significantly advancing chemical-sector workforce readiness.
- **Blueprint alliances under Erasmus+** launched new sector calls (Topics 23 and 24) to support Alliances for Sectoral Cooperation on Skills, with selection expected in early 2024. These alliances address workforce needs in advanced manufacturing, including chemical-processing ecosystems through co-created curricula and vocational education and training (VET) innovation.

Stakeholder actions

- **In Topic 23** stakeholders, particularly business associations and industry actors, were highly active in advancing sustainability-focused skills in 2024, submitting 60 % of the actions. Many initiatives targeted skills gaps in SSbD, green chemistry and regulatory compliance. The submissions also reflect on recent initiatives in the chemical and industrial sectors. Those have focused on strengthening safety practices, developing green and digital skills and advancing SSbD approaches. In addition, submitted activities highlight numerous collaborative EU-funded projects that are building comprehensive skills frameworks across all education and professional levels, supporting upskilling in sustainability, digitalisation and industrial symbiosis. At the policy level, the European Commission's 2024 action plan on labour and skills shortages provides a coordinated roadmap for addressing skills needs across Member States and social partners, reinforcing alignment between sectoral initiatives and EU-wide workforce objectives.
- **In Topic 24** stakeholders reported a broad set of initiatives which accounted for approximately 40 % of submissions. These initiatives presented progress in industry and employer organisations that are collaborating with SME networks to identify company-level skill gaps and provide guidance on navigating new policy and regulatory developments. Other examples include sectoral initiatives that focus on sharing best practices, developing training tools, and promoting upskilling and reskilling to support the green and digital transition. Efforts also include collecting examples of sustainable employment and work-life balance and contributing to broader social dialogue processes at EU level, such as discussions on telework and the right to disconnect.

3.8 Social dimension

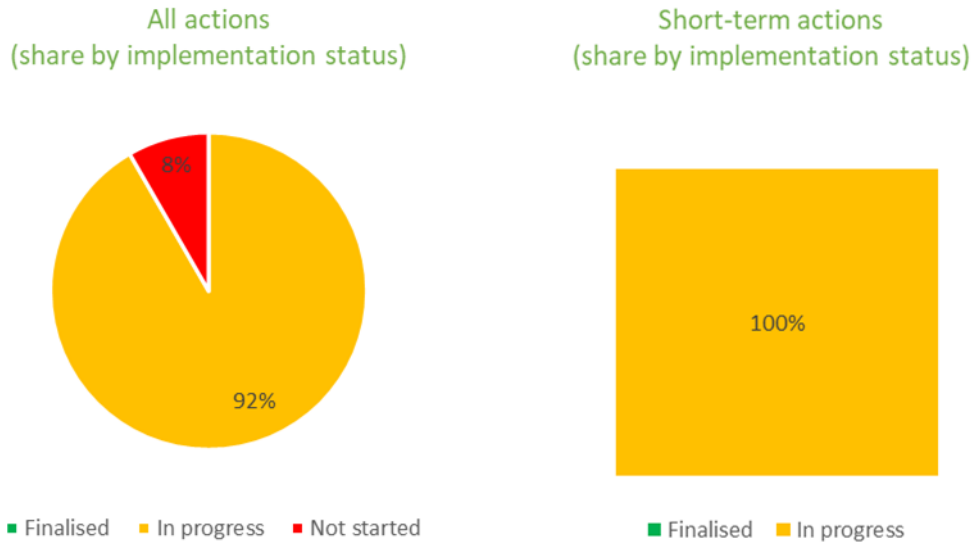
The twin transition can potentially create employment opportunities in some sectors, while shifting jobs from others. The pathway highlights the importance of ensuring a fair and inclusive transformation of the EU chemical industry, paying particular attention to supporting

workers, households and consumers facing major challenges. To this end, the social dimension building block proposes two topics.

- **Topic 25: Impact on workers and consumers** requires social dialogues and communication on the risks linked to the twin transition, as well as regional labour market policies as key measures to avoid negative social consequences.
- **Topic 26: Improve gender diversity and equality in the sector** through a set of actions to address shortcomings in the historical lack of gender balance in the sector, including the implementation of the EU gender equality strategy and encouraging women to a career in chemistry and chemical engineering programmes.

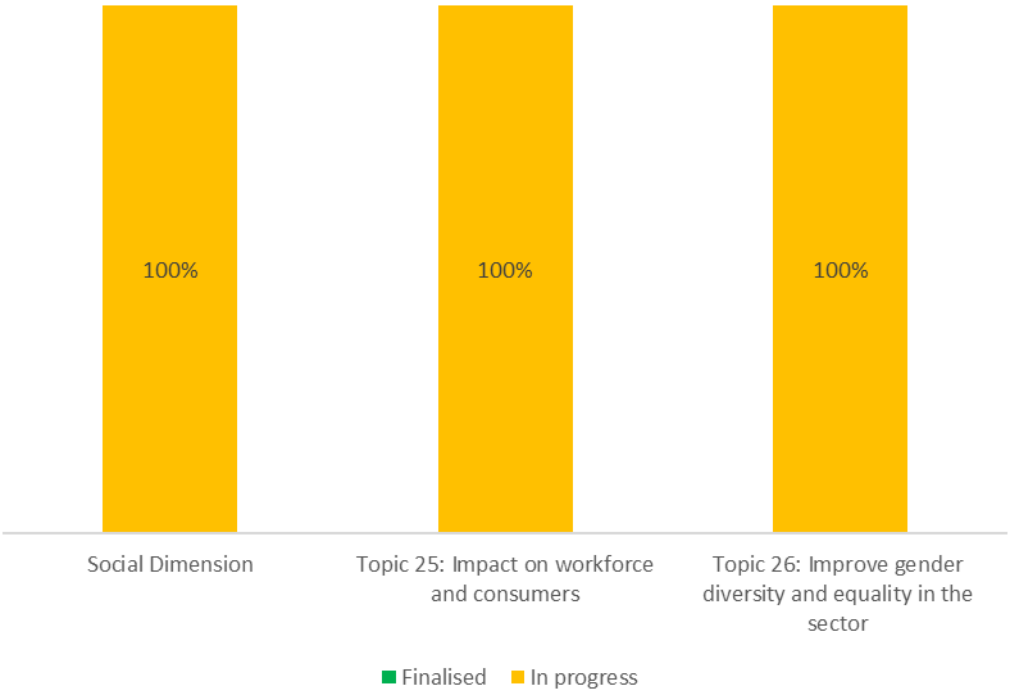
The co-implementation of 92 % of all actions of this building block is under way, with 8 % yet to start.

Figure 19 – Status of Social Dimension



Only medium and long-term actions are classified as non-finalised, whereas all short-term actions under **Topics 25 and 26** are in progress.

Figure 20 – Status of topics in social dimension
(share by co-implementation status of the short-term actions)



EU actions

- **Directive on Gender Balance on Corporate Boards** was adopted (Topic 26), requiring listed large companies to ensure at least **40 % representation of the under-represented sex among non-executive directors**, or **33 % among all board members**, by the deadline of **30 June 2026**. It includes mandates for transparent, merit-based selection procedures, public reporting and penalties for non-compliance.
- **Transposition and early implementation efforts** are underway as by mid-2024, **12 Member States** had formally notified the Commission of their transposing measures, involving public registries and enforcement bodies. Early data from countries with binding quotas report female board representation of **39.6 %** – nearing the requirements – while those with voluntary measures stand at **33.8 %**, and non-quota nations lag behind at **17 %**.
- **European Social Fund Plus (ESF+) supports social inclusion and green/digital transitions** (Topic 25) through continued financing of national and regional programmes aimed at boosting employment, social cohesion and workforce adaptation to the green and digital economy in 2024. The Employment and Social Innovation (EaSI) strand allocated approximately **EUR 96 million** directly in 2024, with total ESF+ support for social innovation (including green/digital reskilling) of around **EUR 127 million**.
- **Support for vulnerable groups and regional inclusion projects** was provided through ESF+ co-financing of social innovation initiatives focused on equitable access to quality jobs and education in 2024. For example, regional projects in France, funded via ESF+, improved career guidance for women, youth, migrants and rural populations – integrating elements of green-economy skills training.

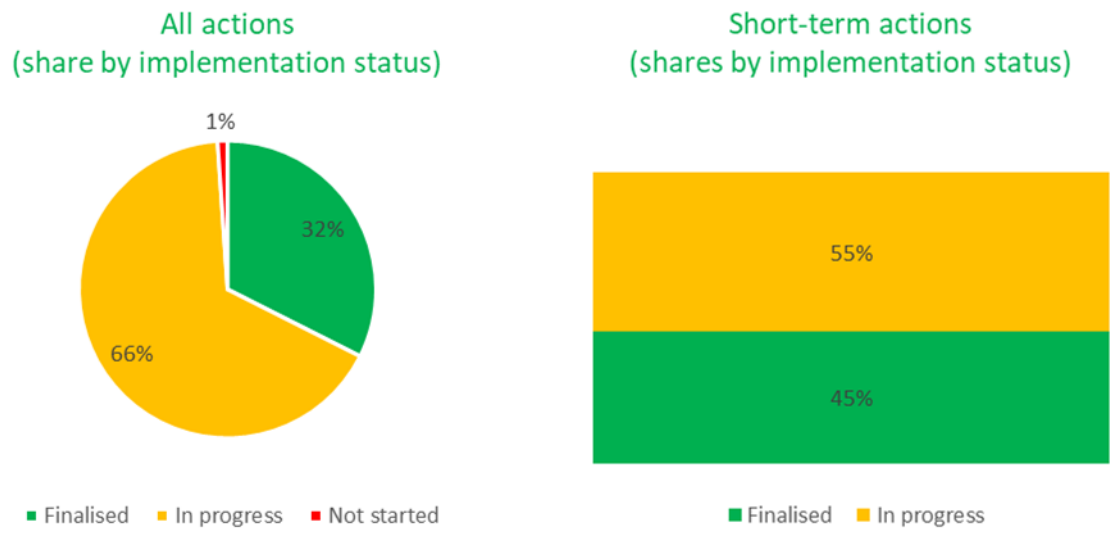
Stakeholders' actions

- In **Topic 25** stakeholders in 2024 demonstrated strong engagement with approximately 71 % of submissions. These initiatives stem from sectoral organisations and social partners that are promoting coordinated action to enhance safety, sustainability and workforce readiness in the context of the green and digital transitions. For example, companies are encouraged to contribute to environmental and economic impact assessments, implement recommended improvements, and apply best practices in safety and job transition planning. Broader initiatives focus on disseminating transition-related messages, engaging social dialogue platforms and fostering collaboration with local stakeholders. Skills development remains a core priority, with implementation primarily at the national level, while continuous monitoring of safety and workforce adaptation supports a transparent and resilient industrial transformation.
- **In Topic 26**, with 29 % of submissions, stakeholder initiatives in 2024 focused on social partners and industry representatives that are supporting follow-up initiatives to promote diversity, inclusion, and equal opportunities within the sector. Examples include the process of companies to increasingly adopt strategies to enhance gender balance and representation of under-represented groups in leadership positions, aligning with broader EU objectives on social equity and workforce diversity.

3.9 Summary of the results

Significant progress has been achieved during the second year of co-implementation. Almost all 187 actions of the transition pathway have been started, with 32 % finalised and 66 % in progress. In line with the expected timeframe for implementation highlighted in the pathway, most of the finalised actions are short term, whereas approximately 25 % of the pending actions are medium or long-term. The main results of the co-implementation process are summarised in Figure 21.

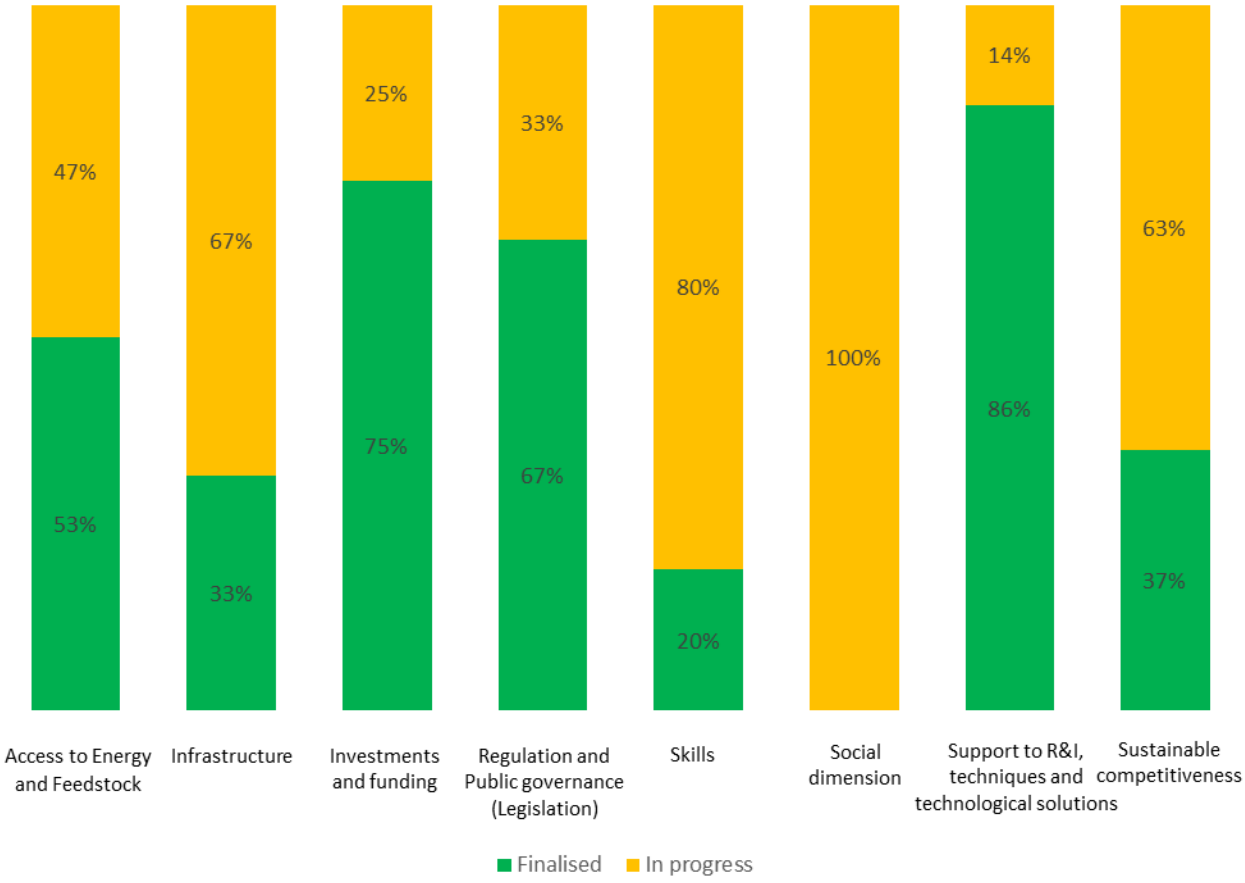
Figure 21 – Status of all building blocks



The building blocks on **investment and funding**, **research and innovation** and **regulation and public governance** account for the highest share of finalised short-term actions at almost 76 % of the total on average. These actions include the conceptualisation

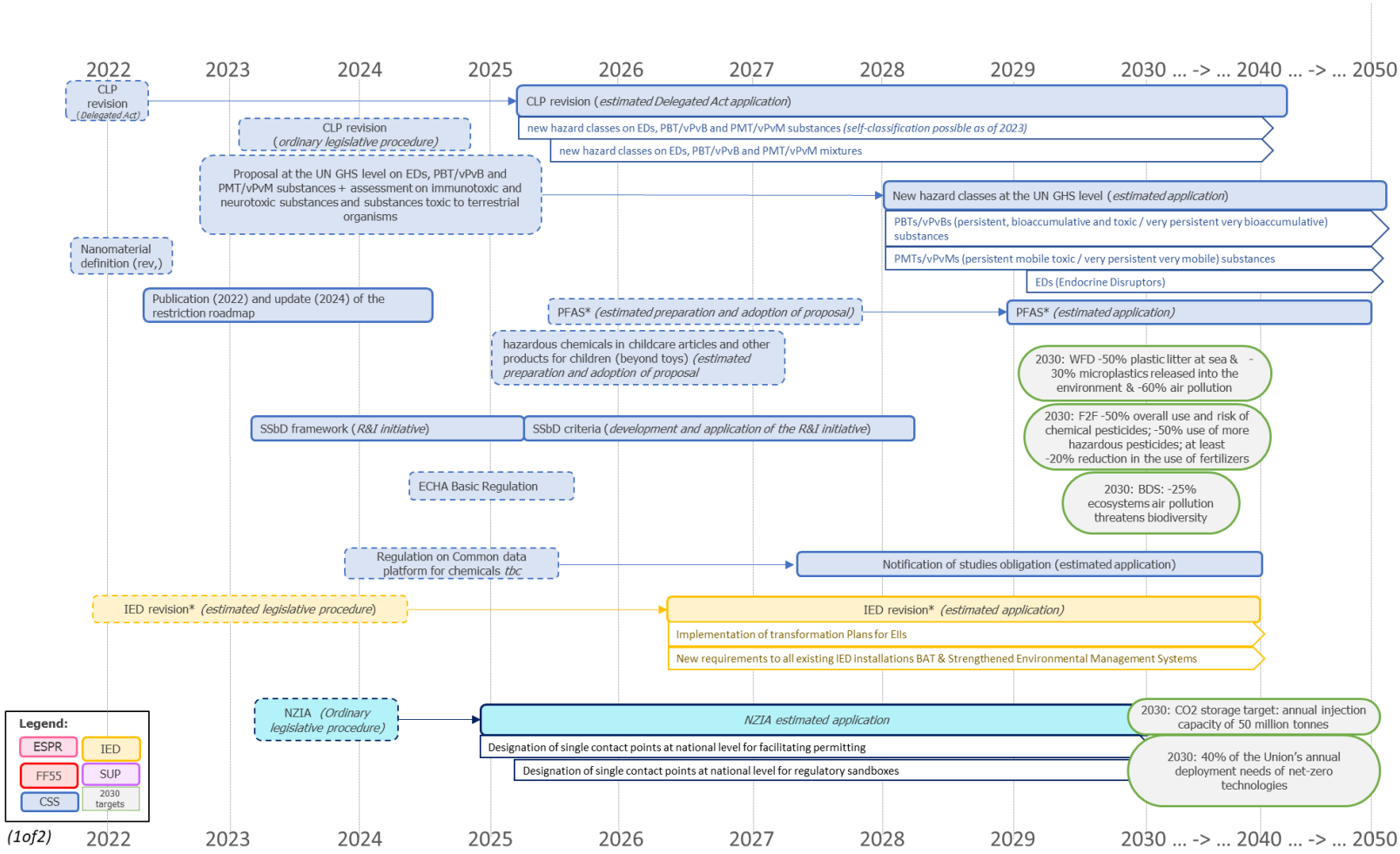
(TRL 1-5) and development (TRL 6-7) of new technological solutions, covered **by Topics 8 and 9 respectively. Access to energy and feedstock, sustainable competitiveness and infrastructure** have on average 41 % of the short-term actions finalised, whereas all short-term actions under **skills** are in progress.

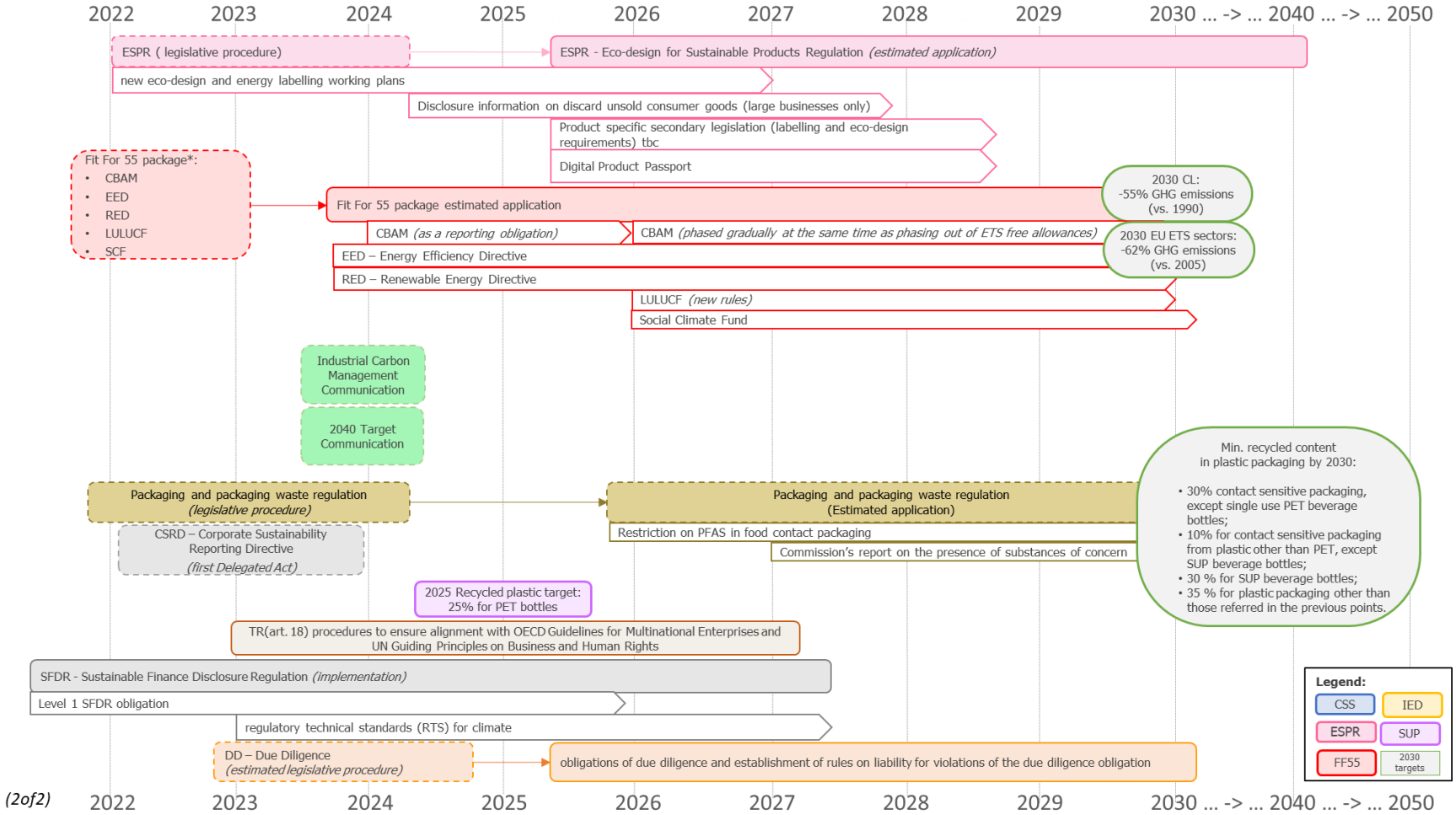
Figure 22 – Status of all building blocks
(share by co-implementation status of the short-term actions)



4. Updated regulatory roadmap

The regulatory roadmap provides an overview of existing legislation and major R&I initiatives relevant to the EU chemical industry. It has been developed using the best available knowledge at the time of writing. This roadmap includes the latest publicly available information and best-scenario assumptions about the ongoing legislative and non-legislative procedures, as proposed by the Commission. However, the timeline shown in the roadmap remains purely indicative – especially for proposals whose content is still under development.




2022
2023
2024
2025
2026
2027
2028
2029
2030 ... -> ... 2040 ... -> ... 2050
ESPR (legislative procedure)
ESPR - Eco-design for Sustainable Products Regulation (estimated application)
new eco-design and energy labelling working plans
Disclosure information on discard unsold consumer goods (large businesses only)
Product specific secondary legislation (labelling and eco-design requirements) tbc
Digital Product Passport
Fit For 55 package*:
CBAM
EED
RED
LULUCF
SCF
Fit For 55 package estimated application
2030 CL: -55% GHG emissions (vs. 1990)
CBAM (as a reporting obligation)
CBAM (phased gradually at the same time as phasing out of ETS free allowances)
2030 EU ETS sectors: -62% GHG emissions (vs. 2005)
EED – Energy Efficiency Directive
RED – Renewable Energy Directive
LULUCF (new rules)
Social Climate Fund
Industrial Carbon Management Communication
2040 Target Communication
Packaging and packaging waste regulation (legislative procedure)
Packaging and packaging waste regulation (Estimated application)
Min. recycled content in plastic packaging by 2030:
30% contact sensitive packaging, except single use PET beverage bottles;
10% for contact sensitive packaging from plastic other than PET, except SUP beverage bottles;
30 % for SUP beverage bottles;
35 % for plastic packaging other than those referred in the previous points.
CSRD – Corporate Sustainability Reporting Directive (first Delegated Act)
Restriction on PFAS in food contact packaging
Commission's report on the presence of substances of concern
2025 Recycled plastic target: 25% for PET bottles
TR(art. 18) procedures to ensure alignment with OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights
SFDR - Sustainable Finance Disclosure Regulation (implementation)
Level 1 SFDR obligation
regulatory technical standards (RTS) for climate
DD – Due Diligence (estimated legislative procedure)
obligations of due diligence and establishment of rules on liability for violations of the due diligence obligation
Legend:
CSS
IED
ESPR
SUP
FF55
2030 targets
2022
2023
2024
2025
2026
2027
2028
2029
2030 ... -> ... 2040 ... -> ... 2050

5. Task forces

5.1 Task force on circularity

This task force (TF) explored possible challenges and enablers to implement alternative feedstocks in the EU chemical industry, focusing particularly on carbon capture and utilisation to use CO2, recycled waste through both chemical and mechanical recycling, and biomass. The TF's members identified a set of barriers to implementing these alternative feedstocks, including:

- lack of an enabling policy framework and incentives to support the development and uptake of alternatives to virgin fossil fuels;
- absence of an open single market for plastics waste, secondary raw materials and CO2 used in the production of chemicals;
- high investment requirements for both R&D and deployment;
- limited availability and accessibility of bio-feedstocks at competitive prices.

Stakeholders also suggested possible actions needed to address these challenges, mapped in Figure 23.

Figure 23 – Enablers to implement circular feedstock based on the feedback from the TF's members

Feedstock	Enablers
CO2	• Promote carbon capture utilisation (CCU) under the Emissions Trading System and the Taxonomy Regulation. • Improve permitting on CCU projects. • Provide support, including financial support through existing instruments such as Innovation Fund and Horizon Europe, for the deployment of CCU infrastructure and to ensure access to renewable hydrogen. • Develop market pull measures for CO2-based products.
Waste	• Develop methodologies to calculate chemical recycled content to provide certainty for investments in chemical recycling technologies. • Recognise credit mass-balance chain of custody with a fuel use exempt model. • Ensure regulatory consistency between waste and product regulations by clarifying the rules for determining when end of waste status is reached in the chemical recycling process. • Harmonise the Waste Shipment Regulation and End of Waste Framework to create a market for waste as a feedstock.
Biomass	• Develop life cycle analysis methodologies for biomass-derived products to improve the comparison with non-renewable products. • Establish targets for bio-based content in products. • Implement green public procurement criteria for bio-based products. • Strengthen the Circular Based Europe Joint Undertaking (CBE-JU) ([23]). • Ensure compliance with the cascading use principle. • Ensure that a single set of sustainability criteria is applied to biomass.

([23]) https://www.cbe.europa.eu/

The TF fulfilled its objectives in 2024 and has since discontinued its activities.

5.2 Task force on energy and feedstock

This TF focused on co-implementing **Topic 14** actions to estimate future needs for energy and alternative feedstock, ensuring continued production of safe and sustainable chemicals.

Figure 24 – Topic 14

Topic 14: Anticipate long-term needs for the supply of energy and feedstock resources		
Actions	Actors	Timeframe
• Estimate the future needs for energy and alternative feedstock to ensure continued production of chemicals	Industry and EU/MS	S
• Evaluate the impact of increases in energy prices	Industry and EU/MS	S
• Consider developing a strategy for the competitive supply of clean energy and strategic raw materials to the EU that takes geopolitical factors into consideration (REPowerEU). Consider evaluating the potential role of eliminating tariffs for supplies of key resources *(Linked to Topic 2.3 and 15.2)*	EU/MS	S

The TF members agreed to use the European Chemical Industry Council (CEFIC)'s iC2050 model to estimate the energy and feedstock needs of the EU chemical industry. Some TF members pointed out that the model limitations. Nevertheless, the exercise provided a useful preliminary insight into potential long-term requirements.

The main findings of the estimation have been released at the end of 2024 in the CEFIC report 'The Carbon Managers: Modelling Possible Pathways for the EU Chemical Sector's Transition Towards Climate Neutrality and Circularity with iC2050'. Key findings include the conclusion that no single solution can deliver net zero in chemicals. Instead, a coordinated deployment of **electrification**, **green hydrogen**, **carbon capture**, **advanced recycling**, **biomass**, and **CO2-based feedstocks** are needed to this end. Each of the different ways forward identified entail specific enabling conditions and policy mandates. Additionally, to replace fossil carbon, the sector must drastically increase its use of **non-fossil carbon sources** – recycled waste, biomass, and captured CO2 – requiring new infrastructure, supply chains, and targeted policy support. Without sufficient access to these alternative feedstocks, progress toward circular and climate-neutral chemicals is severely constrained. Finally, as already identified by the transition pathway for the EU chemical industry, the twin transition demands substantial increases **in energy (especially green electricity)** and **alternative feedstocks**, alongside significant capital expenditure. The iC2050 tool highlights the interdependencies between energy availability, feedstock constraints and technological progress, pointing to critical trade-offs in investment timing and resource allocation.

The TF fulfilled its objectives and has since discontinued its activities.

5.3 Task force on international competitiveness

This TF worked on a mandate to develop a set of indicators to support the monitoring and evaluation of the co-implementation of the transition pathway for the chemical industry.

Based on the suggestions and input provided by the TF's members ([24]), the TF has created a list of 29 potential indicators. As a result, the work on this topic has been concluded.

It was therefore agreed by the working group that this TF should focus on providing suggestions on the action under 'international competitiveness' to develop market pull measures and incentives to encourage consumers to purchase sustainable products.

The market pull measures identified so far include targets for non-fossil carbon, green public procurement criteria, price-related incentives and labelling. According to the TF, it would be important to consider market pull measures alongside supply-side measures to ensure that EU-based producers can provide sustainable products cost effectively. Some participants pointed out that market pull measures should also consider other types of sustainable products beyond those from non-fossil carbon, for example products made with renewable energy or low green-house gas emissions. It was clarified that the current scope of the TF is limited to alternative carbon sources. However, learnings from this work could be applied to other types of products.

The work by this TF continues throughout 2025.

6. Conclusion and next steps

The report summarises the progress achieved during the first year of co-implementation of the transition pathway for the chemical industry. The analysis does not reflect in detail each of the 187 actions highlighted in the pathway. Instead, it aims to provide a general overview of the status of the twin transition of the EU chemical industry under the main building blocks of the pathway based on the best available information at the time of writing.

The analysis shows that concrete initiatives to support the co-implementation of most of the topics of the pathway have already been undertaken by the EU and industry. At Member State level, a number of **national transition pathways** have been developed. National roadmaps have already been published for countries such as Belgium ([25]), Czechia, Greece ([26]) France ([27]) and Austria, with more expected to be completed in the future. Engagement with Member States will be key to ensuring policy coordination at the national and EU levels.

The Commission will continue supporting the co-implementation of the transition pathway through the Working Group on Chemical Industry, the call for transition initiatives and the TFs addressing high priority topics. All this information is collected in the **Stakeholder Support Platform** of the transition pathway for the EU chemical industry: a one-stop-shop for all industrial ecosystems to find the necessary resources and work together on solutions towards the achievement of the green and digital transition.

([24]) See the previous Annual Progress Report for details.

([25]) https://www.essenscia.be/transitieplan/
([26]) https://iobe.gr/docs/research/en/REP_05_C_16042024_REP_EN.pdf
([27]) https://www.francechimie.fr/plan-de-transition-de-la-chimie-en-france

GETTING IN TOUCH WITH THE EU

In person

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