

Stakeholder consultation on the Staff Working Document “For a resilient, innovative, sustainable and digital energy-intensive industries ecosystem: Scenarios for a transition pathway”

Fields marked with * are mandatory.

Introduction

The [update of the EU Industrial Strategy](#) highlights the need to accelerate the green and digital transitions of EU Industry. Among the various instruments, the Commission proposed to co-create, in partnership with industry, public authorities, social partners and other stakeholders, transition pathways for ecosystems, where needed. Priority should be given also to sectors heavily affected by the crisis, which benefit from accelerating their twin transition in order to boost their recovery. Energy-intensive industries ecosystem has been recognised to be one of these critical ecosystems and therefore, it will be tackled among the first ones, by co-creating its transition pathway together with its stakeholders.

The Commission services have prepared a [Staff Working Document](#) to outline possible scenarios for a transition pathway for a more resilient, innovative, sustainable and digital energy-intensive industries ecosystem. This document aims to launch a co-creation process for concrete actions, milestones and commitments with all stakeholders of the energy-intensive industries ecosystem.

You are invited to engage in this process by sending your input through this online consultation form.

Based on the consultation results and further meetings with stakeholders, the transition pathway will be co-created, finalised and presented by December 2021/January 2022.

This survey will be open until 22 November 2021. You are, however, warmly encouraged to send your responses as soon as possible to facilitate early analysis.

In case of questions about this consultation, please send an email to GROW-HLG-EII@ec.europa.eu

About you

*** I am giving my contribution as**

- Academic / Research institution
- Business association

- Company / Business organisation
- Consumer organisation
- Environmental organisation
- EU institution
- EU citizen
- International organisation
- Network of organisations
- Non-governmental organisation (NGO)
- Local administration
- Regional administration
- National administration
- Trade Union
- Other

*** Country of origin of the organisation or the headquarters of a network**

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*** Organisation / Network name**

Glass Alliance Europe

Publication of information

Unit GROW.I.1 will publish a report on DG GROW website with an overview of contributions and a summary of the input received. No personal information of the respondents will be published.

I agree with the personal data protection provisions.

[Privacy statement targeted consultations clean EII TP SWD.pdf](#)

Consultation questions

You are invited to reflect the different issues and scenarios presented in the Staff Working Document for the key dimensions of Resilience, Sustainability and Digitalisation. You may choose which questions you answer, and leave others empty. Please, in particular, propose concrete actions and targets. Quantifiable evidence is very much welcome.

2.1 Resilience

Please read and reflect the issues and scenarios proposed in the **Section 2.1** of the Staff Working Document.

What are the main challenges to ensure resilience in your specific industry or country? What are the key priority sectors, products and materials? Which steps are you and other actors taking to address them?

2000 character(s) maximum

Glass products are necessary to the transition towards a climate-neutral economy. The European Economic and Social Committee recently adopted an opinion report, entitled “Glass in Europe at a crossroads” (CCMI/180-EESC-2021-02384) where it is concluded that “Glass products are indispensable to the transition towards a climate-neutral circular economy”.

The 2020 JRC report, entitled “Critical Raw Materials in Strategic Sectors and Technologies” finds that flat glass is necessary for PV modules, digital devices, aircraft; glass fibres are needed for blade fabrication in wind turbines, digital industry (e.g. printed circuit boards) and aeronautics. On the other hand, glass fibres rely on rhodium-platinum alloys imports to the EU which are also listed in the same report.

Resilience is the capacity of our industry to operate in a stable and long-term manner in Europe. It requires support to our decarbonisation efforts, as well as to alleviate energy costs and ensure stability in the supply of energy and of raw materials (primary and secondary).

In addition, glass must remain part of robust value chains in order to thrive. We supply automotive & transport, buildings, renewables, food & drink, pharmaceuticals, perfumery, jewellery, the electrical and electronics industry, etc. The whole value chains need to be robust and resilient because of the interdependence between sectors across them. E.g. no microchips for automobile means no demand of flat glass and glass fibres; not enough glass vials means no vaccination.

Last but not least, it is paramount to fight against unfair competition from third countries and to make use of trade defence instruments when needed.

What other issues in relation to resilience would you propose to be considered for this pathway?

2000 character(s) maximum

Energy costs are an important component of production costs and must therefore be affordable in order to have a resilient glass industry in Europe. Long term energy supply contracts are one way to make energy costs more affordable and predictable. In addition, security of energy supplies must also be ensured, especially in an industry with continuous processes.

Circular economy is a priority for the glass industry. In this regard, access to secondary resources must be ensured.

What additional or different output scenarios for 2030 and 2050 (cf. actions table in the SWD) would benefit the development of a resilient EII ecosystem?

2000 character(s) maximum

In order to ensure the resilience of the EII ecosystem in general and of the glass industry in particular, a continuous supply of carbon neutral energy, at an affordable cost must be guaranteed.

In addition, the glass industry anticipates concerns with regard to access to raw materials. Disruptions in raw materials supplies need to be prevented in order to keep fully functioning value chains at European level.

European value chains also need to be enhanced: the glass industry clients need to thrive for the glass industry to thrive as well.

Can you provide any data or analysis on strategic foreign dependencies you face (of a given input or technology) to support the Commission's analytical work on strategic capacities and dependencies going forward? Can you provide evidence if you are stretched as a supplier of strategic inputs or technologies?

2000 character(s) maximum

The main dependency issue going forward concerns energy supply, since the European industry is dependent on access to third countries resources and streams, including regarding carbon neutral energy. This concern also covers the technologies used. It should be noted that today, there is no more flat glass production specifically dedicated to solar panels production in the EU.

The glass industry considers it necessary to ensure the capacity for Europe and its industry to function independently from geopolitical evolutions.

2.2 Sustainability

Please read and reflect the issues and scenarios proposed in the **Section 2.2** of the Staff Working Document.

Are the energy-intensive industries on the right track to achieve our targets (climate neutrality, biodiversity, circularity, zero pollution, social fairness)? In which areas are the action gaps between where we want to be and where we need to be greatest?

2000 character(s) maximum

The assessment of the progress of energy-intensive industries towards the EU political targets lies with the European Commission. It should be reminded that to date, the sectoral objectives are set until 2030. The glass industry has considerably decreased its emissions per output in the last 50 years (i.e. a reduction of 69% of CO₂ per tonne of melted glass – source: France's Institut du Verre). However, one can observe that additional reductions since 1990 are realised at a slower pace given that marginal gains become more difficult as we reach the maximum possible today, i.e. without disruptive technologies. Efforts continue and R&D is being invested into and conducted by the glass industry: the sector accounts for various projects on decarbonised energy, connectivity, etc. E.g. container glass: Furnace for the Future project, with a switch to renewable electricity; flat glass: tests on hydrogen use to reduce CO₂ emissions; potential for improvement in recycling.

However the success of the EU decarbonisation policy relies on the successful conclusion of those R&D and demonstration projects, as well as on investments in the necessary infrastructure. It is also a factor of a conducive regulatory environment aimed at driving massive investments for the subsequent roll-out.

What other issues or barriers in relation to the green transition would you propose to be considered for this pathway?

2000 character(s) maximum

In addition to the issues already identified, there is a need to consider the issue of market uptake of carbon avoidance products and low carbon products. The glass industry is coming up with new, innovative solutions, but they have to be adopted by the market for the green transition to be successful. In this context, a redistribution of carbon revenues would represent a helpful measure for the industry.

What additional or different output scenarios for 2030 and 2050 (cf. actions table in the SWD) would benefit the development of a sustainable EII ecosystem?

2000 character(s) maximum

Beyond the crucial issues of investment and operational costs, there is the need to take into consideration the specific and also significant industrial risk for operators who test and implement new technologies. The issue of access to carbon neutral energy sources at an affordable price must also be duly taken into account. Those carbon neutral energy sources should be available to cover at least part of the consumption of the glass sector in the framework of a transition to a carbon neutral economy.

Are there specific targets already set in the roadmaps by the different EII sectors to define where the EII wants to be in 2030 in terms of transition toward climate neutrality and in terms of circularity?

2000 character(s) maximum

The glass sector has expressed clear aspirations for the 2050 horizon. However the success of those aspirations is directly linked to long investment cycles which characterise the industry, as well as to the need for disruptive technologies which would allow to go past current physical limitations in terms of CO₂ emissions reduction. Given the size of the challenge, there can be no commitment at sectoral level for a horizon as close as 2030.

What actions are required to create lead markets for low carbon products?

2000 character(s) maximum

It is essential to advance decarbonisation throughout all sectors in the economy: buildings, automotive, energy, etc.

What additional initiatives could facilitate secondary raw material transfer from one industry sector to another or internally within a sector? What actions are needed to boost demand and secure supply? Is it possible to double the circular material use rate by 2030 in line with the Circular economy action plan?

2000 character(s) maximum

Circular economy principles are clearly part of the priorities for the glass sector. In order to improve circularity, there is a need for better collection and sorting of secondary raw materials. The flat glass industry has already called for material-specific targets in the building sector which would act as an incentive to increase collection and recycling. The container glass industry has started a voluntary programme (“Close the Glass Loop” - <https://feve.org/about-glass/introducing-close-the-glass-loop/>) with its entire value chain (EPR schemes, recyclers, municipalities) to increase the collection rate of glass container from the current 76% to at least 90%. In addition, clarifications regarding the qualification as recycling of co-processing end of life/use composites in other processes would offer waste-management solutions and facilitate transfer to other industrial sectors. For instance, in cement manufacturing, these composites could simultaneously be used as both a highly effective source of energy and of mineral raw material in a single process.

In addressing the challenges outlined here, how do you see the respective roles of the Commission, Member States, industry, social partners and other stakeholders? Do we need new or amended legislation, international agreements, new institutional structures, new standards, targeted funding, industry initiatives, targeted research and innovation, better communication or any other action towards a more innovative ecosystem?

2000 character(s) maximum

With regard to the support at EU level, it is clear that R&D and innovation funding is essential for the success of the EII transition. Public authorities should invest massively in the production and transport of decarbonised energy so that industry can access it easily and everywhere. In addition, public support is necessary to improve circularity in the glass sector, both at EU and national level. When it comes to global competitiveness, a level playing field must be ensured at international level through the support of both the European Commission and Member States. Last but not least, an adequate communication and support aimed at consumers would help providing the right conditions for the glass products market development.

2.3 Digitalisation

Please read and reflect the issues and scenarios proposed in the **Section 2.3** of the Staff Working Document.

Which digital technologies are the most relevant for the EII ecosystem or for your specific industry? Which ones are you already applying today and which will require more time, funding and coordination?

2000 character(s) maximum

There is already widespread application of digital technologies in the glass manufacturing industry. In certain glass sectors, there are attempts to generalise some digital optimisation technologies across the value chain, e.g. to minimise losses and offcuts between the moment the glass is produced and the moment it becomes a window.

What are the main barriers to uptake of digital technologies in the EII ecosystem?

2000 character(s) maximum

There are difficulties with regard to the attractiveness of the EII ecosystem for skilled workforce.

How can data collection, use and sharing (in and across sectors) be increased to improve resilience, sustainability and competitiveness of the EII ecosystem? What issues need to be tackled?

2000 character(s) maximum

Digital tools can be used to communicate material/product sustainability credentials down the value chain and to the end consumer. Nevertheless, when thinking about the use of digital tools for data collection in particular, we must not forget that data sharing is limited by competition in general, as well as some specific competition rules, especially regarding sensitive commercial data. In addition, cybersecurity is a threat against which the EU industry must be protected.

What other issues related to the digital transition would you propose to be considered for this pathway

2000 character(s) maximum

What additional or different output scenarios for 2030 or 2050 (cf. actions table in the SWD) would benefit the development of an innovative EII ecosystem?

2000 character(s) maximum

What are the implications of digital technologies for the EII ecosystem and for the main skill requirements and training needs in its sectors? How could they help increase innovation, resilience, competitiveness and sustainability? Do you see any risks in the use of digital technologies and how could these be addressed?

2000 character(s) maximum

The risks related to the use of digital technologies are cybersecurity, confidentiality and competition.

Is policy intervention/coordination required to move forward on the use of digital technologies in EII's ? If so, in which way and by which actors?

2000 character(s) maximum

In addressing the challenges outlined here, how do you see the respective roles of the Commission, Member States, industry, social partners and other stakeholders? Do we need new or amended legislation, international agreements, new institutional structures, new standards, targeted funding, industry initiatives, better communication or any other action towards a more innovative ecosystem?

2000 character(s) maximum

3.1. Enabling regulatory framework

Please read and reflect the issues and scenarios proposed in the **Section 3.1** of the Staff Working Document.

What more or different would be needed in order to support the transition? Which elements are missing or do you find insufficient in the current regulatory framework?

2000 character(s) maximum

The carbon cost impact resulting from the current climate mitigation policy needs to be better offset for EII's in order to be globally competitive.
Access to carbon neutral feedstock is of paramount importance to achieve the transition, including continuous supply of carbon neutral energy.
The business case for decarbonisation through electrification must be improved. In this regard, indirect emissions cost compensation, suitable coverage and measures under the CEEAG (e.g. inclusion of special glass), as well as adequate energy taxation need to be ensured.
Conditions for circular economy must also be put in place, including bans from landfilling of recyclable waste.

Which roles do the EU and the national level have in addressing this?

2000 character(s) maximum

The EU level is the suitable one for addressing the regulatory framework in view of the transition, including with a view to the harmonisation of rules and support within the internal market. However State aid rules are needed to complement the support granted at EU level. They must be oriented towards the support of low-CO2 production processes. The right place to address this point is under the new CEEAG.

How important is public procurement for your industry and how could green public procurement help create lead markets for sustainable, low-carbon and circular products

2000 character(s) maximum

What other options, in addition to public procurement, could help the creation of these lead markets?

2000 character(s) maximum

Which economic and/or regulatory instruments could support the development of new business models and support the competitiveness of sustainable solutions?

2000 character(s) maximum

3.2 Financing of projects and activities

Please read and reflect the issues and scenarios proposed in the **Section 3.2** of the Staff Working Document.

How can private investment in the EII ecosystem be better geared towards the necessary green and digital transitions?

2000 character(s) maximum

The climate neutrality objective has already been adopted within the industry. However to reach it, there is a need for massive investment, which happens under the conditions of long investment cycles, as well as for disruptive, risky technologies. The EU glass industry needs support towards the transition in the form of minimizing the risk of investments in green technology (mainly Carbon contracts for Difference).

The issue of the profitability of carbon-neutral products must also be addressed in order to ensure that there is a solid business case making the transition feasible.
Last but not least, predictability of the framework and the financing level are key.

Can the framework conditions for private investments in these sectors be improved?

2000 character(s) maximum

Legal stability and certainty are necessary conditions to channel private investment.
The redistribution of ETS revenues earmarked for climate purposes can also participate to enhancing the business case for the transition.

Where do you see gaps in the current funding landscape which put at a disadvantage the EII ecosystem?

2000 character(s) maximum

Is there any incoherence between different funding streams which affects the transition in the EII ecosystem, and how could this be addressed?

2000 character(s) maximum

What is the role for the public and the private sector, and for the EU, national and regional level in providing funding in support of the transition in the EII ecosystem

2000 character(s) maximum

De-risking measures offered by the public sector are needed to support immature low-carbon technologies until their complete roll-out and adoption by the market.
Deploying new technologies on-site is a very heavy process in the framework of the glass sector and requires stopping production. EU State aid rules should be aligned with possibilities to support technological transformations at industrial sites which temporarily halt output.

3.3 Infrastructure and energy needs

Please read and reflect the issues and scenarios proposed in the **Section 3.3** of the Staff Working Document.

Where do you see shortcomings in the current infrastructure that would have to be addressed in order to support the transition of EIIs?

2000 character(s) maximum

The infrastructure is a crucial issue for the dual transition of EIs. The needs cover: high voltage networks, reliable transport and storage for hydrogen, supply and logistic chains for enhanced use of biomass (the potential is limited by the quantities available), waste management and recycling facilities to unlock the potential for further glass recycling, as well as transport and storage infrastructures for CCUS.

Do you see any risk of stranded assets and misguided investments and how could this be prevented (e.g. through mid- to long-term roadmaps that inform investment decisions)?

2000 character(s) maximum

See the answer to question 30 with regard to the need for infrastructure. The heavy investments which will be required can only occur if there is certainty with regard to the regulatory objectives and means, including financing.

The risk of prioritization of renewable energy supply to certain markets must be duly taken into account and respectively avoided (e.g. individual consumers vs. industry, or automotive vs. individual consumers).

Are energy providers and network operators in your view aware of increased decarbonised energy and infrastructure needs? If not, how could this disconnect be addressed?

2000 character(s) maximum

There is an important underestimation of the needs regarding decarbonised energy and infrastructure. The flat glass sector has done a calculation showing that if we turn to biogas for the current European flat glass output, the total current EU biogas production would be insufficient to cover the demand.

The glass sector has serious concerns regarding the cost for the deployment of decarbonised energy sources and the related infrastructure.

In addition, energy suppliers models ignore the increase in industrial production providing for the decarbonisation enabling materials. The future energy demand-supply balance must be thoroughly assessed and security of supply must be ensured.

The current policy also has the caveat of overly relying on consumers' behaviour change to reduce the energy consumption in its models.

In your view, are the technologies required for a resilient, green and digital EI ecosystem already available or do they yet have to be developed? Is the challenge essentially about commercial viability and scale-up or also about early-stage disruptive technologies? What is feasible and what depends on some hypothetical disruptive technology?

2000 character(s) maximum

Significant emission reductions have already been achieved in the glass sector. Some potential left in state-of-the-art technologies (recycling, waste heat use) but it is limited.

Therefore there is still a need for breakthrough disruptive technologies leading to decarbonisation in the glass sector: electrification, hydrogen, CCUS, ...

Each pathway goes with its own challenge:

- Need for sufficient carbon neutral energy feedstock supply;
- Proportionality and cost issue with CCUS;
- Technologies sometimes mutually exclusive.

In any case, the pathway, the regulatory framework and the financing instruments must take into account the specific challenge of the process emissions share in total industrial emissions, which cannot disappear along with the use of low carbon energy sources.

In your view, is there sufficient emphasis on the social and demographic impacts resulting from the transformation of the EILs, including by engaging and actively involving affected citizens and communities in addition to the social partners?

2000 character(s) maximum

3.4 Skills, training and just transition

Please read and reflect the issues and scenarios proposed in the **Section 3.4** of the Staff Working Document.

In your view, what are the main social and just transition challenge connected to the EIL ecosystem's transition, and how do you see their scale?

2000 character(s) maximum

A large number of jobs depend on the glass industry. However, in the framework of the twin transition, it is important to put an emphasis on the value added of EILs for Europe because this is what will contribute to making them attractive to skilled workforce.

Do you have precise projections of the employment and reskilling needs for your sector and what actions are you taking?

2000 character(s) maximum

Does the just transition agenda put sufficient emphasis on the needs of affected citizens, including workers but also their families and especially young people, as well as the communities, and regions they live in? If not, how could these be addressed?

2000 character(s) maximum

To what extent do you think will up/re-skilling be achieved in your industry and in your region?

2000 character(s) maximum

In your view, what will be the distributional impacts of the EII ecosystem's transition – across the whole population (not only for persons working in EII) – on disposable income, energy poverty or access to some essential services? What could be relevant measures to address and mitigate these distributional impacts?

2000 character(s) maximum

Which roles can the Commission, Member States, social partners, industry, trade unions and other stakeholders play to master the transition in a just and socially fair way?

2000 character(s) maximum

3.5 Awareness raising and communication

Please read and reflect the issues and scenarios proposed in the **Section 3.5** of the Staff Working Document.

Where do you see the main challenges in terms of communication and transparency?

2000 character(s) maximum

What are the main target audiences? Which actors can help to achieve a more inclusive and fact-based debate?

2000 character(s) maximum

Which specific actions could the Commission, Member States, the industry, social partners and other stakeholders take?

2000 character(s) maximum

Would you have any examples or good practice tools to share?

2000 character(s) maximum

3.6 Thematic stakeholder meetings and governance

Please read and reflect the issues and scenarios proposed in the **Section 3.6** of the Staff Working Document.

Where do you see need for additional consultation or cooperation on the EII transition pathway, besides what is foreseen within the established stakeholder groups and partnerships described in the SWD?

2000 character(s) maximum

On which areas should international cooperation focus?

2000 character(s) maximum

3.7 KPIs

Please read and reflect the issues and scenarios proposed in the **Section 3.7** of the Staff Working Document.

Which KPIs should be used to assess the progress towards our transition objectives from each of the Commission, Member States, the industry, social partners and other stakeholders?

2000 character(s) maximum

- The glass sector would like to provide further suggestions for the KPIs to be used:

 - Value added to the European economy
 - Number of jobs (direct and indirect)
 - EU and worldwide GHG emissions (production and consumption)
 - Countries/regions with carbon pricing mechanisms equivalent to the EU ETS (regulatory costs for EU EII)
 - EU and worldwide share of decarbonised energy sources
 - Energy cost for EU EII
 - Energy import reliance of EU EII
 - Availability of secondary materials (supply) and waste streams
 - Level of access to EU funding for EII
 - TRLs in decarbonisation and digitalisation technologies

- Market share of decarbonisation solutions in public procurement
- Market share of EILs on EU market
- Trade balance of EU EILs
- Measures addressing international trade distortions.

What are the data sources?

2000 character(s) maximum

The European Commission is invited to cooperate on data collection and on their proof-checking with the EILs to ensure that the industrial reality is well taken into account and that we are headed for a feasible and realistic policy, based on informed decisions.

It is also necessary to avoid rushing such an important assessment and to allocate enough time to achieve adequate and reliable results.

4. Expression of interest in concrete pledges and commitments

Supporting actions towards and beyond the proposed scenarios would be needed. However, this could be achieved only through joint work and commitments. The objective of the transition pathway is to co-create actions and scenarios supported by specific commitments to working towards them. For this reason, the Commission is gathering expressions of interest from industry / associations / networks / administrations / other organisations to pledge their involvement, support and actions. Based on the expressions of interest submitted through this consultation, DG GROW will be in contact with the organisations in order to jointly define common pledges by December 2021/January 2022.

What concrete pledge your organisation would be interested to present or collaborate on, in order to support the transition pathway towards a more resilient, greener and innovative EIL ecosystem?

2000 character(s) maximum

5. General comments

What other comments would you like to give?

2000 character(s) maximum

Whom should we contact regarding your contribution and possible further involvement in the EII Transition Pathway process? We use this contact information when launching a Call for Interest for potential participants in the Stakeholder consultation workshops in October-December 2021.

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Background Documents

[SWD transition pathway EII](#)

Contact

[Contact Form](#)

