



GLASS FOR EUROPE
Building, Automotive, Solar-Energy Glass

Glass for Europe's answer to the consultation on the sustainable competitiveness of the construction sector

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Glass for Europe is a registered organization on the European Commission's register of interest representatives under the ID number 15997912445-80.

Glass for Europe's address is rue Belliard 199 – B-1040 Brussels

Glass for Europe is the trade association for Europe's manufacturers of flat glass. Flat glass is the material that goes into a variety of end-products and primarily in windows and façades for **buildings**, windscreens and windows for **automotive and transport** as well as glass covers, connectors and mirrors for **solar-energy** equipments. It is also used in smaller quantities for other applications such as furniture, appliances, electronics, etc.

Glass for Europe has four members: AGC Glass Europe, NSG-Group, Saint-Gobain Glass and Siseecam-Trakya Cam and works in association with Guardian. Altogether, these five companies represent 90% of Europe's flat glass production.

Glass products not only provide light, comfort, style, security and safety, they are also **essential to energy-efficient buildings, houses and transport**. Windows containing high-performance glass such as low-e insulating glass, which helps keep warmth in, and solar-control glass, which reflects unwanted heat away, help reduce energy consumption. Solar-energy glass helps enhance the production of a renewable sources of energy.

Better use of building glass alone could help reduce Europe's CO₂ emissions by 100 million tonnes annually hence Glass for Europe's plea for an ambitious and robust European energy-efficiency policy.



GLASS FOR EUROPE aisbl/ivzw

Rue Belliard 199/33, B-1040 Brussels - T. +32 (2) 538.43.77 - F. +32 (2) 280.02.81

info@glassforeurope.com - www.glassforeurope.com - VAT: BE 0418 828 479



Question 1.1.1

Considering your experience and feedback from your sector, do you think that the financial and economic crisis will have a long term impact on the structure and operation of the construction sector in general or specifically in your sector, in particular due to more stringent access conditions to capital and credit? If so, what do you think this impact will be?

The European glass industry has been severely hit by the financial and economic crisis and is still significantly affected by the current recession. Over the last three years, the European glass industry has seen a sharp fall of its overall production resulting in the closing down of manufacturing facilities and associated job losses. Today the effects of the recession are still felt as glass sales and production outputs are still below their pre-crisis level. This is due to the construction sector's high sensitivity to the slightest growth variations and evolutions of the economic environment.

Like other industries of the construction sector, the glass industry is affected by the more stringent access conditions to capital and credit which hinder growth in the sector by making it more difficult for property owners to find money for renovating their estate and preventing potential investors, in particular households, to invest in the construction of new dwellings.

In this context, the industry ability to reach a sustainable level of competitiveness and prosperity will depend on the response of the public authorities both at EU and national level. Public authorities' intervention will be fundamental to create a stable business environment to foster the deep renovation of buildings and incentivize manufacturing industries of construction products to invest in the EU. Deeply renovating Europe's existing building stock is the only way for the EU's to reach its 2050 goal of cutting CO₂ emissions from the built environment by 90% and ensure a successful and smooth transition to a low carbon economy. Public authorities' intervention by way of an ambitious plan to renovate completely Europe's existing buildings over the next 40 years, policy measures to offer enough protection against carbon leakage as well as facilitating the uptake of new technologies will also be instrumental in fostering further investments in the European manufacturing sector of construction products. Thus, the establishment of a more business-friendly regulatory environment will guarantee the long-term predictability needed to maintain Europe's lead in research and production of advanced energy saving technologies.

Question 1.1.2

In your opinion, how are construction enterprises in general and enterprises in your field in particular adapting to changing conditions related to the labour market, the demand and urban, environmental and demographic concerns? Please give specific examples if possible.

As far as the glass industry is concerned, huge efforts to adapt to the environmental challenge are being made. In particular, European glass manufacturers have been investing in R&D to improve efficiency of manufacturing, keep production in Europe and develop new high-tech product to keep their leadership in energy saving solutions for buildings.

However, difficulties and inconsistencies in the EU legislation applying to manufacturing industries and glass in particular lessen efforts made by the construction enterprises to adapt to a constantly changing business environment. Increased pressure on the use of new materials (REACH regulation) and the insufficient protection against risks of carbon leakage are a few examples of these difficulties and inconsistencies.

Question 1.1.4

Do you consider that they are sufficiently adapting to these changes? Please specify.

Glass manufacturers have been making huge and sustained efforts to reduce their GHG emissions despite rise in production¹ through the development of more energy efficient production processes. New energy saving technologies have been developed and new products put on the market to match the growing demand for more energy saving building materials, such as low-emissivity and solar-control glass. Building integrated photovoltaic (BIPV) technology has also been developed to match demand for renewable sources of energy harmoniously integrated in the built environment. Nevertheless, investing in research and innovation for new products and manufacturing processes implies significant costs and financial risks for companies. As a result it requires legal security and long term visibility for the industry to expect significant return on investments.

Adaptation to changing environmental concerns will mainly depend on EU policies. Since the greatest impact of most construction products and glass in particular lay in its use phase, it is therefore fundamental that Community's legislations duly take into account Life Cycle Analysis (LCA) for assessing the overall environmental impact of products. This will avoid disadvantaging carbon-saving products.

Question 1.1.5

Is there any particular construction market where you see possibilities for a faster development of 'greening' the market?

As for glazing, windows and façade markets, a fast uptake of available energy saving technologies is very likely, provided that an adequate regulatory framework at the EU level is established and combined with efficient and appropriate financial incentives. Such framework would consist of an EU-wide Energy Labelling scheme for windows as well as robust and ambitious implementation of Directive 2010/31/EU on the Energy Performance of Buildings (EPBD).

The 'greening' potential of the market is enormous as 85% of windows in Europe are fitted with inefficient glazing, among which 44% are still single-glazed. A study by TNO² has estimated that up to 100 million tonnes of CO₂ could be saved each year if all windows in Europe were refurbished with modern glazing solutions. What is more, thanks to new glazing technology, embodied carbon of a state-of-the-art window is offset by the energy saved after only 3.5 months³. Given that the average lifetime of a window is 25 to 30 years, a window equipped with energy saving glazing has a positive energy balance over its lifetime as it saves far more energy in use compared to what was needed to produce it.

As such, possibilities of 'greening' the market will arise with new constructions and deep renovation of existing buildings, if and only if, adequate and easily accessible financing mechanisms for households are set up, split incentives to renovation between tenants and owners are properly addressed and consumers are well aware of the energy saving properties of the different construction materials.

Besides, there are also possibilities of a fast development of specific construction markets such as low-energy buildings, passive houses and nearly zero-energy buildings. A fast development of building-integrated photovoltaic (BIPV) is also very likely if existing national public schemes to support the development of renewable sources of energy are kept and further developed throughout the EU.

¹ 2009/C 317/02: Opinion of the European Economic and Social Committee on the 'Competitiveness of the European glass and ceramics industry, with particular reference to the EU climate and energy package'

² TNO Built Environment and Geosciences - Potential impact of low-Emissivity glazing on energy and CO₂ savings in Europe - TNO Report 2008-D-R1240/B - November 2008.

³ GEPVP – Energy & environmental benefits from advance double glazing in EU buildings – March 2005

Question 1.2.3

Where do you see new job opportunities expanding in the construction sector in general and enterprises in your field in particular?

The employment potential in the construction sector is enormous due to the need to renovate the existing building stock and the fact that work in the construction sector is by its very nature labour-intensive. Similarly, the latter is also mainly local and accessible to people who traditionally suffer the highest rates of unemployment. If the opportunity offered by both the need to renovate the entire existing building stock (starting by tripling the current renovation rate) and the necessity to make new constructions as low-energy as possible is properly grasped, up to 2 million jobs could be created (according to the Energy Efficiency Plan, COM/2011/109). Concerning the glass industry, new job opportunities are to be found by glass makers, glass processors, windows manufacturers and installers as well as installers of solar panels (photovoltaic & thermal).

Question 1.3.1

Could you identify domains in construction that would require a better coordination between national and EU regulatory instruments (i.e. laws, standards, labels, certificates)? Please provide some examples and explain why you see gaps/overlaps in terms of rules definition, interpretation and enforcement, especially with respect to sustainable development objectives?

When it comes to informing consumers about the energy consumption of the different construction product available on the market, wide disparities between countries exist. In the particular case of windows, some EU countries have already set up energy labelling schemes, some are developing schemes while the other have not done so yet. Such a gap in terms of access to information on the energy saving potential of window products available on the market should be brought to an end in order to empower all European consumers to choose the most energy efficient solutions. Harmonisation of the various existing national energy labelling schemes for windows is more than needed and should be done through an EU-wide scheme as foreseen by Directive 2010/30/EU on energy labelling.

A better coordination of policy instruments is also needed at EU level. Indeed, the proliferation of policy instruments (certificates, labels) about different aspect of buildings could be confusing for consumers and could end up diluting the sound objectives of these initiatives. Glass for Europe is convinced that priority should thus be given to market-based instruments such as energy labels and Energy Performance Certificates which will boost the market for sustainable building materials.

Last but not least, breaches to the single market that some Member States attempt by forcing manufacturers to nationally certify fully legally CE-marked products should be brought to an end. In cases of obvious breaches of EU law, legal action in the European Court of Justice against those member states hindering the free movement of good in the single market should be more systematically undertaken.

Question 1.4.1

Do you think that national performance assessment methods and certification tools should evolve to address construction works performances in an integrated manner and at the same time be useful to a wider range of projects (i.e. not only for large representative projects, but also for smaller construction works)?

Glass for Europe feels that harmonisation of assessment performance methods and certification tools is necessary and should be done with the development of common EU standards through the *Comité Européen de Normalisation* (CEN) network. These new standards should be based on the already existing harmonised standards developed by CEN.

More specifically, the Energy Performance Certificates, which constitutes a very useful tool expressing the constructions energy performance, need to be extended to all construction works by the implementation of the EPBD.

Question 1.5.1

Do you consider that there would be other major challenges for the construction sector not addressed in the previous questions worth pursuing at European level? If yes, please specify the context and the main issues that should be tackled in your view.

The challenge of remaining competitive for EU-based manufacturing and the lack of a level playing field with third-countries competitors' on the EU market need to be addressed at EU level. Indeed, although, the strict regulatory framework in which European manufacturing industries operate incentivizes them to innovate constantly to improve the efficiency of their production process; remaining competitive is still a challenge, as complying with the EU strict requirements has a cost which is not faced by third-countries competitors. This lack of level playing field occurs particularly for energy intensive industries which compete with products having higher carbon content. In other words, (high-tech) products manufactured in third-countries often have higher embodied carbon than their EU counterparts and are cheaper than products manufactured in the EU.

To address properly the crucial issue of the competitiveness of European manufacturing industries, policy-makers need to be aware of the true value of products manufactured in Europe, and in particular their low embodied carbon. In addition, glazing products manufactured in Europe do not need to be transported over long distance to reach their final users, thus contributing to lower carbon footprint than glass imported from outside the EU.

Glass for Europe believes that it has to be properly reflected in EU public policies especially by always using Life Cycle Analysis (LCA) to assess the environmental performance of products. Only a true LCA of products will enable consumers to be aware of the lower environmental impact of products manufactured in the EU.

Question 2.1.5

Do you think that the EC and MS should further encourage the development of skills and competences for performance based contracts, life cycling costing and Green Public Procurement criteria? Could you suggest any initiative that could support this development? What would be the respective role of the EC and of the MS in the implementation of the initiative?

As stated above, Glass for Europe is strongly convinced that the EU and member states should encourage the development of a true and harmonised LCA of products which should become the EU norm to assess the energy performance of products. Legal obligations to purchase energy efficient buildings products and services based on LCA-criteria are needed for the public sector to lead by example and pave the way to the market uptake of energy efficient product and services.

Question 2.2.2

Would you consider demand side instruments supporting innovation (standardisation, labelling, certification, etc.) as a possibility to strengthen the exploitation of EU research? What would you suggest to improve the functioning of the existing instruments and initiatives in relation to the market concerned, e.g. new construction or renovation?

Demand side instruments such as energy labelling need to be rapidly developed for construction materials in order to speed up the uptake of new energy efficient technologies and products and allow return on R&D investments for companies. Strengthening the exploitation of EU research requires that companies could further increase their R&D efforts for new products and technologies,

provided that significant returns on investments are expected. Developing demand side instrument for energy-related construction products is the best way to ensure a faster uptake of high-tech products and incentivize manufacturers to increase their research efforts. As a result, the development of demand side instruments need to go faster and give priority to market-based tools which indirectly phase-out less performing products.

Question 2.3.1

In your view, what are the specific cross-cutting issues amongst various EU legislations in fields such as the Internal Market, energy, environment, health and safety at work and Public Procurement that could require clarification, interpretation and better coordination with respect to their application to construction?

The growing number of cross-cutting issues amongst various EU legislations in different fields which apply to construction products, such as Regulation 2011/305/EU laying down harmonised conditions for the marketing of construction product (CPR) and the Reach Regulation, raises difficulties for manufacturers. Due to its broad scope, the REACH regulation was not specifically designed to address the specificities of construction products and their potential content in hazardous substances. In addition, the permanent debates over the REACH regulation interpretations could create some legal instability for the Construction Products Regulation.

Question 2.3.2

Which mechanisms would you suggest to reduce disparities in the enforcement of European legislation affecting the construction sector at national and regional levels? In your opinion, is there any legislative domain that requires specific attention in these mechanisms and how would you monitor and assess the efficiency of these mechanisms?

Glass for Europe believes that existing mechanisms which have already demonstrated their efficiency when appropriately and timely used should be considered to reduce disparities in the enforcement of EU legislation. These mechanisms are the following:

- Clear delegated acts.
- Mandatory reporting of member states' transposition and implementation of EU legislation. Close monitoring from the Commission of the reporting of member states is needed.
- More regular infringement procedures against member states breaching EU law and in particular the free movement of good within the single market.

When it comes to guaranteeing enforcement of community law, Glass for Europe believes that three areas deserve particular vigilance from the European Commission:

1. the transposition and implementation of the EPBD
2. the issuance of clear delegated acts and guidance ahead of the CPR entry into force
3. the still overly numerous national certification schemes (nearly) forced onto manufacturers of CE-marked products to (re)create national market boundaries.

Question 2.4.1

What would you propose to improve coherence between different existing instruments with respect to their application to the construction sector in order that they become more operational?

In order to improve the coherence between the different existing policy instruments targeting the construction sector, Glass for Europe feels that overlapping initiatives should be avoided and priority should be given to market-based instruments such as energy labelling and Energy Performance Certificates. More specifically, a greater caution is needed about the development of eco-design

criteria for energy-related products and Ecolabel for buildings due to overlapping and possible confusions with the above-mentioned instruments. Beside, one should not forget that the main environmental impact of construction products occurs during the use phase, i.e. during the building component lifetime, when its impact on energy consumption of the building depends on the type of construction material used.

Question 2.4.2

Amongst existing instruments, which ones do you see the most effective for the construction sector? Please specify according to the market considered.

In Glass for Europe opinion, the most effective existing policy instruments for construction products and the glass market in particular are the energy labelling of building components, the energy performance certificates of buildings deriving from the critically important EPBD, Green Public Procurement and the Construction Products Regulation.

Question 2.4.3

If you consider the existing instruments are not effective enough for the construction sector, would you propose new instruments? Please specify according to the market considered.

The existing instruments mentioned above could potentially be effective enough for the construction sector, provided they are properly and rapidly developed and/or implemented. What is fundamentally missing to Europe's construction sector is a comprehensive and credible strategy to achieve the objective of an 80 to 90% CO₂ emission reduction from the built environment by 2050. Such a strategy should mobilize all relevant policy and financial means to achieve a tripling of the deep renovation rate of buildings within the next couple of years. It should include concrete proposals for sustained financial support for renovation, clear pathways and targets per Member State, credible enforcement mechanisms and major communication efforts to rally society behind the objective of renovating Europe's buildings.

Specifically the current proposed Directive on Energy Efficiency should be used as an opportunity to produce a step change in the energy performance of Europe's building stock. Glass for Europe feels that the current draft lacks ambition, and hopes to see it strengthened during the consultation process, to provide an impetus for growth in the market for energy-efficient building products.

Question 2.4.4

Do you think that the recourse to European Structural Funds for construction projects should be conditional to more ambitious sustainable development criteria than today's practice? Please specify the domains of particular relevance and the type of criteria to be developed.

Glass for Europe believes that the recourse to European Structural Funds (ESF) for construction projects needs to be conditional to energy efficiency for buildings and building components. For instance, building components used in those project co-financed by the ESF should meet the highest class level of their category. This requires the quick development of energy-labelling for relevant energy-related building components such as windows. Similarly, all new constructions co-financed by the European Structural Fund should achieve nearly-zero energy standards, as of now, ahead of the 2018/2020 deadline set out in the Energy Performance of Buildings Directive.
