

PU Europe reaction on the Public Consultation on Sustainable Buildings

The European Commission is preparing a Communication on Sustainable Buildings. PU Europe wishes to react to the related public consultation as follows.

Concept of sustainable buildings

Apart from energy consumption in the use phase, in your view, which of the following aspects and their related environmental impacts should be in focus to improve the environmental performance of buildings?

	Important	Somewhat important	Not important at all	I do not know
Material use for producing construction products	X			
Material use on the construction site	X			
Material use in the use stage of the buildings (maintenance, replacement)	X			
Water use for manufacturing construction products	X			
Water use on the construction site	X			
Water consumption in the use phase of a building	X			
Energy use for manufacturing construction products	X			
Energy use on the construction site	X			
Energy use on the deconstruction/demolition site	X			
Durability of construction products and components	X			
Flexibility of the building design, i.e. being able to use the building for different /changing functions and needs	X			
Deconstruction and recyclability, i.e. assuring that material can be recycled at the end of its lifetime in the building		X		
Use of recycled material in the construction product/building			X	
Management of construction and demolition waste	X			
Other	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Different products have different environmental impacts. In order to enable informed choices, all impact categories need to be covered. With this in mind, the potentials regarding eutrophication, acidification, ozone depletion, photochemical ozone creation should be added as well as land use, impact on biodiversity, eco-toxicity and human toxicity.

It is important to realise that better environmental performance is not synonymous with sustainable building, since the environmental pillar should be balanced with the economic and social pillars. The terms used in the Communication must be clear about its objective: better environmental performance or sustainable buildings.

Also there is too often a shortcut made between better environmentally performing building and the

promotion of so-called “green” construction products. It is critical to acknowledge that construction products cannot be assessed on a stand-alone basis since construction works with the highest “green” credentials may use products which might have relatively high environmental loads but which will significantly contribute to reducing the building’s environmental impact throughout its lifetime. For example, they may be easier to install (e.g. less waste), require less ancillary materials to achieve performance levels, last longer (less maintenance or replacement) etc.

Problems to tackle

Demand for better environmental performing buildings and construction products

A. In your view, what is the current demand for better environmental performance in the following areas? For different kinds of buildings, the distinction is made between new and existing buildings.

	High	Moderate	Low	I do not know
Public buildings (New buildings)		X		
Public buildings (Existing buildings)			X	
Private buildings excluding residential ones (New buildings)		X		
Private buildings excluding residential ones (Existing buildings)			X	
Residential buildings (New buildings)		X		
Residential buildings (Existing buildings)			X	
Construction products		X		

B. In your view, without any new policy or initiatives to stimulate better environmental performance, what is the likely future demand for environmental performance in the following areas?

	High	Moderate	Low	I do not know
Public buildings (New buildings)		X		
Public buildings (Existing buildings)		X		
Private buildings excluding residential ones (New buildings)	X			
Private buildings excluding residential ones (Existing buildings)		X		
Residential buildings (New buildings)		X		
Residential buildings (Existing buildings)		X		
Construction products		X		

C. In your opinion, what would be the appropriate level of intervention to increase demands for better environmental performance in the following areas?

	Beyond EU	EU	National	Regional/Local	Market	No need for intervention	I do not know
Public buildings (New buildings)			X				
Public buildings (Existing buildings)			X				
Private buildings excluding residential ones (New buildings)		X					
Private buildings excluding residential ones (Existing buildings)		X					
Residential buildings (New buildings)			X				
Residential buildings (Existing buildings)			X				
Construction products			X				
Please refer here to the "other" suggestion that you described in the text box under question 2A							

Availability of indicators and data

A. Has your organisation performed or required a Life Cycle Assessment (LCA) or used information from an LCA [i] in relation to construction products or components?

X YES using one system for LCAs

If yes, which one(s)?

Environmental product declarations for PU thermal insulation products according to ISO 14040, ISO 14044 and EN 15804.

B. Has your organisation used a scheme for the assessment of the environmental performance of a building?

X YES using one scheme

If yes, which one(s)?

Two studies on the environmental performance of different insulation products in end-use applications (new build / renovation, whole buildings / components) according to ISO 14044 and EN 15643-1, EN 15643-2 and EN 15978.

C. How would you assess the availability of good quality indicators and data in the following areas?

	Good	Moderate	Bad	I do not know
LCAs for construction products		X		
Indicators/methods for building product LCAs)	X			
Input data to LCAs	X			
Indicators for the environmental performance of buildings	X			
Data on the environmental performance of buildings	X			
National indicators for resource flows related to buildings. E.g., indicators for material consumption, waste generation etc.		X		
National data on resource flows related to buildings. E.g., data on material consumption, waste generation, etc.		X		

D. In your opinion, what would be the appropriate level of intervention to improve the availability of good quality indicators and data in the following areas?

	Beyond EU	EU	National	Regional/Local	Industry	No need for intervention	I do not know
LCAs for construction products	X						
Indicators/ methods for construction product LCAs					X		
Input data to LCAs					X		
Indicators for the environmental performance of buildings		X					
Data on the environmental performance of buildings					X		
National indicators for resource flows related to buildings			X				
National data on resource flows related to buildings			X				
Please refer here to the "other area" you described in the text box under question 3C							

Systems to communicate environmental performance of construction products and buildings

B. Based on your general experience, to what extent do you agree with the following statements regarding possible consequences of working with environmental performance declarations for construction products?

	I totally agree	I agree to a large extent	I only partially agree	I do not agree	I do not know
It gives the producer a better understanding of the production process, its resource flows and environmental impacts	X				
It gives the value chain in general a better understanding of the advantages and disadvantages of different material and production options	X				
It opens up new market possibilities			X		
It is costly	X				
Appropriate information is hard to find			X		
It requires a lot of training	X				
It requires a lot of effort	X				
It requires a lot of knowledge	X				
Other consequence	X				

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

If the indicators and methods are not harmonised, they create market distortion and high unnecessary cost to industry. The lack of proper, easy-to-use building assessment tools using EPD information to calculate and optimise the building performance pushes EPD users to compare at material level rather than building level. In these cases, they miss an opportunity to significantly increase the environmental performance of the whole building.

C. Please explain why you have chosen to work with only one system (as opposed to several) for environmental performance declarations (EPDs)?

	Major reason	Minor reason	Not a reason	I do not know
Do not need more than one system. The one used is imposed by government.			X	
Do not need more than one system. The one used is imposed by clients.		X		
Do not need more than one system. The one used has been chosen for other reasons than being imposed by government or clients.	X			
More information would be necessary			X	
More training would be necessary			X	
Too much effort to work with more than one system		X		
Too costly to work with more than one system	X			
Other reason	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

The system we work with (EN 15804) is the only system looking for pan-European harmonisation and is already recognised by several public / government-sponsored data bases.

E. Based on your experience, to what extent do you agree with the following statements regarding possible consequences of working with different systems (as opposed to one system) for environmental performance declarations for construction products?

	I totally agree	I agree to a large extent	I only partially agree	I do not agree	I do not know
It gives the producer an even better understanding of the production process, its resource flows and environmental impacts				X	
It gives the value chain in general an even better understanding of the advantages and disadvantages of different material and production options				X	
It opens up new market possibilities				X	
It is costly	X				
Appropriate information is hard to find			X		
It requires a lot of training	X				
It requires a lot of effort	X				
It requires a lot of knowledge	X				
Other consequence	X				

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

It would lead to confusion in the market. Producers would choose the system that gives better results for their specific products and the credibility of all systems would be compromised.

F. In your opinion, what would be the appropriate level of intervention to address the following situations?

	Beyond EU	EU	National	Regional/Local	Industry	No need for intervention	I do not know
Different reporting schemes for environmental performance declarations (EPDs) for construction products		X					
Different national reporting requirements on environmental performance of construction products		X					

-Buildings-

H. Based on your general experience, to what extent do you agree with the following statements regarding possible consequences of working with a scheme for the assessment of environmental performance of buildings?

	I totally agree	I agree to a large extent	I only partially agree	I do not agree	I do not know
It gives the designer/developer/builder a better understanding of the environmental impacts of different options	X				
It gives stakeholders like investors, public authorities, private persons and organisations in general a better understanding of the environmental impacts of different options		X			
It opens up new market possibilities			X		
It is costly		X			
Appropriate information is hard to find			X		
It requires a lot of training	X				
It requires a lot of effort		X			
It requires a lot of knowledge	X				

J. Please explain why you have chosen to work with only one scheme (as opposed to several) for the assessment of the environmental performance of buildings?

	Major reason	Minor reason	Not a reason	I do not know
Do not need more than one scheme. The one used is imposed by government.			X	
Do not need more than one scheme. The one used is imposed by clients.		X		
Do not need more than one scheme. The one used has been chosen for other reasons than being imposed by government or clients.	X			
More information would be necessary			X	
More training would be necessary			X	
Too much effort to work with more than one scheme		X		
Too costly to work with more than one scheme		X		
Other reason	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

We worked with EN 15643-1, EN 15643-2 and EN 15978, as they provide the most complete set of environmental indicators and the most scientific calculation method. It is recognised that they are not perfect in their present form. However, their revision involves all material groups, contractors, academia, architects, LCA experts, consumers and regulators, which ensures wide acceptance.

L. Based on your experience, to what extent do you agree with the following statements regarding possible consequences of working with different schemes (as opposed to one system) for the assessment of the environmental performance of buildings?

	I totally agree	I agree to a large extent	I only partially agree	I do not agree	I do not know
It gives the designer/developer/builder an even better understanding of the environmental impacts of different options				X	
It gives stakeholders like investors, public authorities, private persons and organisations in general an even better understanding of the environmental impacts of different options				X	
It opens up new market possibilities				X	
It is costly		X			
Appropriate information is hard to find			X		
It requires a lot of training		X			
It requires a lot of effort		X			
It requires a lot of knowledge		X			
Other statement	X				

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Using different schemes compromises the level playing field and creates market distortions.

M. In your opinion, what would be the appropriate level of intervention to address the following situations?

	Beyond EU	EU	National	Regional/Local	Industry	No need for intervention	I do not know
Different reporting schemes for the environmental performance of buildings					X		
Different national reporting requirements on environmental performance of buildings		X					

Material management

A. Regarding construction and demolition waste, which of the following areas do you believe are currently sufficiently dealt with in the supply chain? Which areas would need to be improved, in your view?

	Great improvements needed	Small improvements needed	Sufficiently dealt with	I do not know
Recycled material in construction products			X	
Disassembly of construction products (taking apart construction products into parts suitable for reuse or recycling)		X		
Recyclability of sorted building materials		X		
Identification and sorting of construction and demolition waste	X			
Competence of work force at construction and/or demolition site	X			
Design for deconstruction of buildings (considering already at the design stage how to take apart a building at the end of its life time, into parts that can be reused or recycled)		X		
Other area	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Knowledge about the economic and environmental effects of different end-of-life scenarios for different materials in different countries needs to be deepened. Depending on existing infrastructure, population density and building traditions, these effects can differ substantially between Member States. This knowledge is essential to enable Member States to develop tailor-made policy frameworks.

B. What would be the appropriate level of intervention to address those areas for which you consider improvements are needed?

	Beyond EU	EU	National	Regional/Local	Industry	No need for intervention	I do not know
Recycled material in construction products						X	
Disassembly of construction products (taking apart construction products into parts suitable for reuse or recycling)				X			
Recyclability of sorted building materials					X		
Identification and sorting of construction and demolition waste		X					
Competence of work force at construction and/or demolition site			X				
Design for deconstruction of buildings (considering already at the design stage how to take apart a building at the end of its life time, into parts that can be reused or recycled)			X				
Please refer here to the "other area" you described in the text box under question 5A		X					

Increasing built space

A. In your view, what are the major reasons for the increasing demand of built space per person?

There are two major reasons for this development. One is changing lifestyles leading to more, but smaller households (number of single-person households is steadily increasing). The second reason is a long-term increase in private wealth levels allowing people to buy / rent larger surfaces than before and improve comfort.

Policy options

Measures on assessment framework for the environmental performance of buildings

A. In your view, how effective would the following policy options at EU level be to support the increased uptake of better environmental performing buildings?

	Effective	Somewhat effective	Not effective	I do not know
General guidance regarding resource use areas to include in existing and new schemes for the assessment of the environmental performance of buildings			X	
A voluntary European framework consisting of core indicators	X			
A voluntary European framework consisting of core indicators and, eventually, a set of benchmarks			X	
A mandatory European framework consisting of core indicators			X	
A mandatory European framework consisting of core indicators and, eventually, a set of benchmarks			X	
No change in EU policy			X	
Other policy option not listed above	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Establish a clear link between BWR7 of the Construction Products Regulation and the series of standards as developed by CEN/TC350. This would provide much needed legal certainty to markets and regulators. It would also ensure that a holistic view is taken on buildings. Limiting building performance to environmental aspects does not necessarily lead to more sustainable buildings.

We replied "effective" to the option "voluntary European framework consisting of core indicators" assuming that no additional assessment scheme next to TC350 is developed.

B. Do you think that the overall benefits of implementing these options will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
General guidance regarding resource use areas to include in existing and new schemes for the assessment of the environmental performance of buildings		X		
A voluntary European framework consisting of core indicators		X		
A voluntary European framework consisting of core indicators and, eventually, a set of benchmarks	X			
A mandatory European framework consisting of core indicators	X			
A mandatory European framework consisting of core indicators and, eventually, a set of benchmarks	X			
No change in EU policy				X
Please refer here to the "other area" you described in the text box under question 7A			X	

Measures to stimulate demand for better environmental performing buildings

8A. In your view, how effective would the following policy options at EU level be to stimulate demand for better environmental performing public buildings?

	Effective	Somewhat effective	Not effective	I do not know
Mandatory GPP (going beyond energy efficiency) for all or certain type of buildings (e.g. schools), based on European criteria			X	
Voluntary GPP (going beyond energy efficiency) for all or certain type of buildings (e.g. schools), based on European criteria		X		
Mandatory targets for the extent of GPP of buildings by public authorities			X	
Voluntary targets for the extent of GPP of buildings by public authorities		X		
Training of relevant authorities in how to use GPP in the area on buildings		X		
Increasing the use of GPP of buildings (going beyond energy efficiency) in future EU regional policy			X	
EU-wide life cycle costing (LCC) methods for buildings for GPP			X	
No change in EU policy		X		
Other policy option not listed above	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Encourage Member States to use existing European tools for assessing the sustainability of public buildings as developed by CEN/TC350. They provide the methods to assess the environmental (LCA), economic (LCC) and social performance of buildings. Developing new tools, including a new LCC method, would be a waste of resources.

The problem with current GPP criteria is that they would not necessarily lead to better performing buildings as criteria are largely set at product level.

B. Do you think that the overall benefits of implementing these options, for public buildings, will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Mandatory GPP (going beyond energy efficiency) for all or certain type of buildings (e.g. schools), based on European criteria	X			
Voluntary GPP (going beyond energy efficiency) for all or certain type of buildings (e.g. schools), based on European criteria	X			
Mandatory targets for the extent of GPP of buildings by public authorities		X		
Voluntary targets for the extent of GPP of buildings by public authorities		X		
Training of relevant authorities in how to use GPP in the area on buildings			X	
Increasing the use of GPP of buildings (going beyond energy efficiency) in future EU regional policy	X			
EU-wide life cycle costing (LCC) methods for buildings for GPP	X			
No change in EU policy				X
Please refer here to the "other area" you described in the text box under question 8A		X		

A range of further initiative could be considered for both the public and private consumers

D. In your view, how effective would the following policy options at EU level be to stimulate demand for better performing environmental public buildings?

	Effective	Somewhat effective	Not effective	I do not know
Label/Certification providing information on environmental performance of buildings, based on a European framework			X	
Voluntary agreements on minimum environmental performance of buildings			X	
Awareness raising campaign where e.g. architects help clients understanding different options in terms of environmental performance		X		
European Eco-label for buildings (awarded to best environmental performers)		X		
Provide guidance to Member States on financial incentives (e.g. tax breaks, preferential loans)		X		
No change in EU policy		X		
Other policy option not listed above	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Clear guidance to all construction stakeholders explaining why LCA of buildings is a complex matter that cannot be summarised in a single label. An LCA is an expert tool to allow trade-offs between different options mainly in the design phase.

E. Do you think that the overall benefits of implementing these options, for public buildings, will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Label/Certification providing information on environmental performance of buildings, based on a European framework	X			
Voluntary agreements on minimum environmental performance of buildings	X			
Awareness raising campaign where e.g. architects help clients understanding different options in terms of environmental performance		X		
European Eco-label for buildings (awarded to best environmental performers)	X			
Provide guidance to Member States on financial incentives (e.g. tax breaks, preferential loans)		X		
No change in EU policy				X
Please refer here to the "other policy option" you described in the text box under question 8D		X		

G. In your view, how effective would the following policy options at EU level be to stimulate demand for better performing environmental private buildings (residential and non-residential)?

	Effective	Somewhat effective	Not effective	I do not know
Label/Certification providing information on environmental performance of buildings, based on a European framework			X	
Voluntary agreements on minimum environmental performance of buildings			X	

Awareness raising campaign where e.g. architects help clients understanding different options in terms of environmental performance		X		
European Eco-label for buildings (awarded to best environmental performers)			X	
Provide guidance to Member States on financial incentives (e.g. tax breaks, preferential loans)		X		
No change in EU policy		X		

H. Do you think that the overall benefits of implementing these options, for private buildings (residential and non-residential), will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Label/Certification providing information on environmental performance of buildings, based on a European framework	X			
Voluntary agreements on minimum environmental performance of buildings	X			
Awareness raising campaign where e.g. architects help clients understanding different options in terms of environmental performance		X		
European Eco-label for buildings (awarded to best environmental performers)	X			
Provide guidance to Member States on financial incentives (e.g. tax breaks, preferential loans)		X		
No change in EU policy				X

Measures on assessment and reporting scheme for the environmental performance of construction products

A. In your view, how effective would the following policy options at EU level be to support the development of better environmental performing construction products?

	Effective	Somewhat effective	Not effective	I do not know
Mandatory EU environmental product declarations (EPDs). Declarations would be complete in the sense that they would cover all relevant environmental impacts.	X			
Voluntary EU environmental product declarations (EPDs). Declarations would be complete in the sense that they would cover all relevant environmental impacts.		X		
Mandatory EU environmental product declarations (EPDs). Declarations would be limited in the sense that they would cover only a selected set of environmental impacts.			X	
Voluntary EU environmental product declarations (EPDs). Declarations would be limited in the sense that they would cover only a selected set of environmental impacts.			X	
Develop a common EU database for EPDs for buildings products	X			
Support the use of EPDs and software tools to provide information on the environmental performance of construction products to e.g. architects and builders	X			
No change in EU policy			X	
Other policy option not listed above	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Establish a clear link between BWR 7 of the Construction Products Regulation and environmental product declarations (EPDs) according to ISO 14040, ISO 14044 and EN 15804. This would reduce the number of parallel systems in the market. All indicators currently used by one or more Member States and PEF should be included in these EPDs while avoiding duplication. This final list should then remain unchanged for a number of years so that experience can be gathered. According to the CPR principles, producers would declare the indicators as required in the national markets they wish to place their product on.

B. Do you think that the overall benefits of implementing these options will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Mandatory EU environmental product declarations (EPDs). Declarations would be complete in the sense that they would cover all relevant environmental impacts.		X		
Voluntary EU environmental product declarations (EPDs). Declarations would be complete in the sense that they would cover all relevant environmental impacts.		X		
Mandatory EU environmental product declarations (EPDs). Declarations would be limited in the sense that they would cover only a selected set of environmental impacts.	X			
Voluntary EU environmental product declarations (EPDs). Declarations would be limited in the sense that they would cover only a selected set of environmental impacts.	X			
Develop a common EU database for EPDs for buildings products			X	
Support the use of EPDs and software tools to provide information on the environmental performance of construction products to e.g. architects and builders			X	
No change in EU policy				X
Please refer here to the "other policy option" you described in the text box under question 9A		X		

Measures to ensure the availability of data for life-cycle analysis (LCA)

A. In your view, how effective would the following policy options be to ensure good quality LCA data?

	Effective	Somewhat effective	Not effective	I do not know
Further development of the European Life-cycle Database (ELCD)	X			
Common platform to share existing and future LCA data	X			
No change in EU policy			X	
Other policy option not listed above	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

To reduce costs, in particular for smaller manufacturers, representative generic EPDs should be explicitly authorised. Moreover, any EU database should clearly indicate which energy mix was used. Otherwise, producers located in a country with a high coal share would always be disadvantaged compared to their competitors from countries with significant nuclear power use (unless radioactivity becomes a mandatory indicator).

B. Do you think that the overall benefits of implementing these options will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Further development of the European Life-cycle Database (ELCD)			X	
Common platform to share existing and future LCA data			X	
No change in EU policy				X
Please refer here to the "other policy option" you described in the text box under question 10A			X	

Measures to ensure the availability of national data on resource flows related to buildings

A. In your view, how effective would the following policy options be to ensure good quality data to be collected and reported at national level?

	Effective	Somewhat effective	Not effective	I do not know
Establish indicators to be used at national level when collecting data		X		
Require data collection at national level			X	
No change in EU policy				X

B. Do you think that the overall benefits of implementing these options will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Establish indicators to be used at national level when collecting data		X		
Require data collection at national level	X			
No change in EU policy				X

Measures to use construction material more efficiently

A. In your view, how effective would the following policy options at EU level be to improve the efficiency of use of construction materials?

	Effective	Somewhat effective	Not effective	I do not know
Recommend Member States to require some kind of an end of life assessment in order to grant a building permit		X		
Include aspects such as "design for deconstruction" and the "use of recyclable and/or recycled materials" in assessment frameworks for buildings.			X	
Include aspects such as "design for deconstruction" and the "use of recyclable and/or recycled materials" in assessment systems for construction products.			X	
Include aspects such as "design for deconstruction" and the "use of recyclable and/or recycled materials" in GPP criteria			X	
Support markets for secondary construction materials		X		
Introduce quality standards for secondary construction materials		X		
Set targets for management of construction and demolition waste		X		
Support voluntary agreements on reduction of construction and demolition waste		X		

Ban landfill of construction and demolition waste		X		
Recommend increased taxes for the landfill of construction and demolition waste			X	
Support collaboration along supply chain for sustainable material and waste management		X		
Stimulate business models where developers/builders keep the ownership and responsibility for maintenance and upgrading of the building			X	
No change in EU policy		X		
Other policy option not listed above	X			

Please explain/describe here the "other" suggestion that you have in mind and which you have ranked in the last row of the previous matrix:

Promoting the use of EPDs, as they can quantify the benefits and burdens stemming from using secondary raw materials and / or recycling end-of-life construction products. Hence, they offer a more holistic view on resource efficiency than simple thresholds for recycled content. Recycled content alone does not guarantee better environmental performance (it all depends on recycling process burdens, logistics impacts,...) and will depend on location.

Thresholds on recycled content would create market distortions, as recycled materials are not equally available in all regions.

B. Do you think that the overall benefits of implementing these options will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Recommend Member States to require some kind of an end of life assessment in order to grant a building permit		X		
Include aspects such as "design for deconstruction" and the "use of recyclable and/or recycled materials" in assessment frameworks for buildings.	X			
Include aspects such as "design for deconstruction" and the "use of recyclable and/or recycled materials" in assessment systems for construction products	X			
Include aspects such as "design for deconstruction" and the "use of recyclable and/or recycled materials" in GPP criteria	X			
Support markets for secondary construction materials		X		
Introduce quality standards for secondary construction materials		X		
Set targets for management of construction and demolition waste		X		
Support voluntary agreements on reduction of construction and demolition waste		X		
Ban landfill of construction and demolition waste	X			
Recommend increased taxes for the landfill of construction and demolition waste		X		
Support collaboration along supply chain for sustainable material and waste management		X		
Stimulate business models where developers/builders keep the ownership and responsibility for maintenance and upgrading of the building				X
No change in EU policy				X
Please refer here to the "other policy option" you described in the text box under question 12A		X		

Measures to use buildings more efficiently

A. In your view, how effective would the following policy options at EU level be to stimulate more efficient use of public buildings?

	Effective	Somewhat effective	Not effective	I do not know
Include the efficient use of buildings (e.g. using empty or flexible or multi-purpose buildings) in assessment schemes or add this aspect to GPP criteria.			X	
Platform to share best practice on how to use buildings more efficiently			X	
Support training of relevant actors		X		
No change in EU policy		X		

B. Do you think that the overall benefits of implementing these options will outweigh their costs?

	Not at all	Slightly	Significantly	I do not know
Include the efficient use of buildings (e.g. using empty or flexible or multi-purpose buildings) in assessment schemes or add this aspect to GPP criteria.	X			
Platform to share best practice on how to use buildings more efficiently	X			
Support training of relevant actors		X		
No change in EU policy				X

Brussels, 13th September 2013