



Supporting Study for Fitness Check on the Construction Sector – The Second Phase on EU Environment, Health and Safety Legislation

Annexes

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Supporting Study for Fitness Check on the Construction Sector – The Second Phase on EU Environment, Health and Safety Legislation

Annexes

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Annex 1: Selection of legislation

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Table A1-1: Short list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014						
ID	Legislation - short title	Time in force	DIRECT EFFECTS on the construction sector and/or on the related sectors?	SPECIFIC EFFECTS on the construction sector and/or the related sectors, with regard to competitiveness or sustainability?	The expected likelihood of occurrence and magnitude of the effects must be SIGNIFICANT?	Short-list
3	Directive 89/391/EEC OSH Framework	1989 – present	The construction sector is identified as one of the most dangerous in terms of occupational accidents. The obligations of the OSH Framework apply to the construction sector.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment. Excessive costs could lead to some manufacturing moving out of the EU damaging international competitiveness.	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. A number of pieces of legislation have been brought into effect under the OSH Framework which apply to the construction sector - these are considered separately (see below)	Yes
4	Directive 89/654/EEC on minimum safety and health requirements for the workplace	1989 – present	The minimum requirements for safety and health at the workplace apply to the construction sector.	As above	Although these baseline requirements apply to all construction works and the majority of manufacturers of construction products and equipment, there are further more specific legislation (see below) which is likely to have greater impacts on the construction sector.	No
6	Directive 89/656/EEC on the use of personal protective equipment	1989 – present	These requirements relate to all companies who are obliged to provide their workers with PPE.	As above	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	Yes
7	Directive 90/269/EEC on manual handling of loads	1990– present	These requirements relate to all companies whose workers are involved in manual handling.	As above	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	Yes

Table A1-1: Short list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014						
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8	Directive 90/270/EEC on the use of display screen equipment	1990 - present	Obligations on those companies who have staff that use Display Screen Equipment	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	A small proportion of workers in the construction sector are likely to use DSE for a significant length of time. Expected likelihood of occurrence and magnitude of effects minor	No
9	Directive 91/383/EEC on fixed-duration or temporary employment relationships	1991 - present	The sector is typified by fixed-duration and temporary workers.	As above	The requirements will apply to many construction works and some manufacturers of construction products and equipment. The impacts will tend to be associated with the more specific pieces of OSH legislation covered elsewhere	No
10	Directive 92/57/EEC on temporary or mobile construction sites	1992 - present	'Temporary or mobile construction sites' refers to any construction site at which building or civil engineering works are carried out.	As above	The requirements will apply to all construction works. Magnitude of effects may be significant as all sites will need health and safety plans drawn up and implemented by trained personnel.	Yes
11	Directive 92/58/EEC on safety and/or health signs at work	1992 - present	Employers must provide or ensure that safety and/or health signs are in place where hazards cannot be avoided or reduced.	As above	The requirements will apply to all construction works and manufacturers of construction products and equipment. Since many signs are relatively inexpensive and can be re-used, the impacts will be minor.	No
12	Directive 92/104/EEC on safety in mineral-extracting industries	1992 - present	The construction sector (including mining and extractive industries) is identified as one of the most dangerous in terms of occupational accidents. Employers in the mining and extractive industries must take necessary measures to ensure the safety of their workers.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment. Excessive costs could lead to some extraction industry moving out of the EU damaging international competitiveness.	Although the magnitude of effects may be moderate, the requirements will only apply to those operating in the mining and extractive industries which make up a very small portion of the overall turnover and employment in the construction sector.	No
13	Directive 94/9/EC on equipment for potentially explosive atmospheres	1994 - 2014	Some construction products will be covered by the ATEX Directive	Measures to harmonise product safety standards may stimulate competitiveness through RDI	Proportion of construction products that fall under the ATEX Directive is likely to be a small. Expected magnitude of effects is minor.	No

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14	Directive 98/24/EC on risk related to chemical agents at work	1998 – present	Workers involved in construction works or the manufacture of construction products or equipment could potentially be exposed to chemical agents (particularly dusts and fumes) whilst at work.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to many construction works and many manufacturers of construction products and equipment. Magnitude of effects may be significant.	Yes
16	Directive 1999/92/EC risk from explosive atmospheres	2000 – present	The Directives sets minimum requirements for improving the safety and health of workers potentially at risk from explosive atmospheres	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to some construction works and to some manufacturers of construction products and equipment. However, overall magnitude of effects expected to be minor.	No
17	Directive 2001//95/EC on general product safety	2001 - present	Some construction products are covered by the General Product Safety Directive.	Taking measures to protect the health of workers (as well as consumers) ensures the sector remains sustainable in terms of employment.	In general terms, GPSD imposes minimal additional burden on the construction sector. By way of example, only a handful of products per year (mainly smoke alarms) have been notified on RAPEX	No
18	Directive 2002/44/EC on exposure of workers to risks from physical agents (noise)	2002 – present	Employers are required to protect workers from the risks from occupational exposure to noise.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works and some manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	Yes
19	Directive 2003/10/EC on exposure of workers to risks from physical agents (vibration)	2003 – present	Employers are required to protect workers from the risks from occupational exposure to vibrations.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works and some manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	Yes
20	Directive 2003/88/EC on working time	2003 - present	Obligations on companies in the construction sector employing staff	Creates a level playing field for enterprises. More burden on those companies that operate night and shift work.	Obligations will affect the majority of companies in the sector. However any effects are unlikely to be significant in magnitude where companies are adequately staffed. Possibly more of an effect on those operating shift or night work.	No
21	Directive 2004/37/EC on carcinogens and mutagens at work	2004 – present	Workers involved in construction works or the manufacture of construction products or equipment could potentially be exposed	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works and the majority of manufacturers of construction products and	Yes

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			to carcinogens and mutagens whilst at work.	Sustainability - possible benefits for the environment if less toxic chemicals/products used.	equipment. Magnitude of effects expected to be significant.	
23	Directive 2006/25/EC on exposure of workers to risks from physical agents (artificial optical radiation)	2006 – present	Employers are required to protect workers from the risks from occupational exposure to artificial optical radiation.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will affect some construction works and some manufacturers of construction products and equipment. However, the magnitude of effects is expected to be minor.	No
24	Directive 2006/42/EC on machinery	2006 – present	Defines essential health and safety requirements of general application, supplemented by a number of more specific requirements for certain categories of machinery. This is applicable to manufacturers of construction equipment.	Creates a level playing field for enterprises. Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	Manufacturers of construction equipment will be affected. It is expected that many activities relating to the requirements would be undertaken anyway (business as usual) as manufacturers ensure their products are safe for their intended use. However significant effects where the requirements are not met.	Yes
25	Directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits	2006 – 2014	Manufacturers of electrical construction products or equipment will need to comply with the requirements under the Low Voltage Directive	Creates a level playing field for enterprises. Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements relate to some manufacturers of construction products and equipment. It is expected that many activities relating to the requirements would be undertaken anyway (business as usual) as manufacturers ensure their products are safe for their intended use. Therefore the expected magnitude of any effects would be minor	No
26	Regulation 561/2006/EC on driving hours	2006 – present	Directive of most relevance to the transport sector. However, manufacturers of construction products or equipment that undertake their own transport could be affected.	Creates a level playing field for enterprises. More burden on those companies that undertake their own transport.	Proportion of companies in the construction sector affected is likely to be minimal. Expected magnitude of effects is minor.	No
27	Directive 2009/104/EC on the use of work equipment	2009 – present	These requirements relate to all those using work equipment.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	Yes

Table A1-1: Short list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014						
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28	Directive 2009/148/EC on exposure to asbestos at work	2009 – present	Sets out specific requirements for those working with asbestos, which is an activity that occurs in the construction sector. Costs for adequate PPE etc.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment. It also helps to protect the sector from compensation claims.	It is likely that a number of construction works (building and demolition) will involve the use of asbestos. Significant health implications if requirements are not adhered to.	Yes
29	Regulation 305/2011/EU on construction products	2011/13 – present	Requirements apply to all construction products which are covered by a harmonised standard.	Application of CE marking on product ensures the product can be sold in all EU MS. Furthermore, basic work requirement stipulates the sustainable use of natural resources	Requirements relate to the majority of construction products. However the focus of the CPR is on the performance of products and associated information obligations (including CE marking and declaration of performance). The effects on the construction sector associated with health and safety and environment aspects of CPR are unlikely to be more significant than legislation focused on such issues.	No
30	Directive 2013/35/EU on exposure of workers to risks from physical agents (electromagnetic fields)	2013 – present	Employers are required to protect workers from the risks from occupational exposure to electromagnetic fields.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to some construction works and manufacturers of construction products and equipment. However, the magnitude of effects expected to be relatively minor.	No
32	Regulation 1907/2006/EC REACH	2007 – present	For construction products which are substances or mixtures that meet the criteria for classification as hazardous it is obligatory under the REACH regulation to deliver a safety data sheet (SDS) according to Article 31.	Competitiveness - ensures a level playing field where the use of hazardous substances is concerned. Sustainability - may reduce the number of hazardous substances used in construction products	REACH will apply to some manufacturers of construction products. The obligations mostly relate to provision of safety data sheets information, as such expected magnitude of effects is moderate. However, effects are likely to be more significant for CLP (see below).	No
33	Regulation 1272/2008/EC CLP	2009 – present	Construction products containing, but not limited to substances which are, flammable, explosive, toxic, etc. must be classified, labelled and packaged in accordance with the CLP Regulation.	Competitiveness - ensures a level playing field where the use of hazardous substances is concerned. Sustainability - may reduce the number of hazardous substances used in construction products	CLP will apply to some manufacturers of construction products. The obligations relate to provision of information; classification, labelling and packaging. The expected magnitude of effects is significant.	Yes
35	Directive 92/43/EEC on habitats	1992 – present	The Directive requires the assessment of "plans and projects" that may have a "likely significant effect". Such plans or projects	Sustainability - intended to prevent major adverse impacts on natural habitats.	Small number of works likely to be effected by this requirement - expected likelihood of occurrence and magnitude of effects minor	No

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			can only continue if the competent authority is convinced there will be no "adverse effect on the integrity of a European site". It is could be the case that construction works may be stopped, postponed or altered in response to this requirement.			
36	Directive 94/62/EC on packaging and packaging waste	1994 – present	Manufacturers of construction products and equipment will need to comply with the requirements of the packaging waste Directive where appropriate.	Reducing the amount of packaging and increasing the recyclability of packaging could provide a competitive edge if valued by customers. May also help to reduce overheads as amount of packaging is reduced. Sustainability - beneficial impact on the environment as amount of packaging waste reduced and/or more recycled.	The requirements will apply to some construction products and equipment. Packaging is unlikely to account for a significant proportion of materials costs so magnitude of effects expected to be minor.	No
37	Directive 97/68/EC on non-road mobile machinery emissions	1997 – present	Applies to all construction equipment with a combustion engine e.g. bulldozers, dump trucks, diggers etc.	Creates a level playing field for enterprises. Sustainability - environmental impact of construction equipment is reduced	The requirements will apply to some construction equipment. Technology transferable from other sectors e.g. general automotive sector, so expected magnitude of effects is minor.	No
38	Directive 1999/31/EC on landfill waste	1999 - present	Requirements of the Directive relate to the operation of landfill sites, for example categorisation of sites, banning of tyres or waste that is liquid, flammable, explosive or corrosive, or from hospitals and medicinal and veterinary practices. The construction sector may be impacted through the payment of landfill tax where applicable.	Limited specific effects	Majority of construction and demolition waste likely to be exempt or at lower rate (as inert waste) - Expected likelihood of occurrence and magnitude of effects minor	No
39	Directive 2000/14/EC on noise emissions of equipment for use outdoors	2000 – present	Requirements relate to noise emissions from construction plant and equipment used outdoors.	Creates a level playing field for enterprises. Sustainability - reduced environmental impact from construction sector	The requirements will apply to some construction equipment. Technology transferable from other sectors e.g. general automotive sector, expected magnitude of effects minor.	No

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40	Directive 2000/60/EC Water Framework	2000 – present	Although most of the requirements relate to Member State authorities, some enterprises in the construction sector may have duties through the polluter pays principle.	Ensures a level playing field for enterprises in the construction sector. Sustainability - protects the fresh water environment from damage	Manufacturers of certain construction products may be affected. However, most requirements with regard to water are covered by specific legislation e.g. Groundwater Directive and Industrial Emissions Directive. As such the expected likelihood of occurrence and magnitude of effects is minor.	No
43	Directive 2002/449/EC on environmental noise	2002 - present	Time limits on when construction works can operate as well as the use of heavy machinery	Sustainability - prevents any negative impacts on important habitats	Sufficient operating hours means any effects will be minimal - expected likelihood of occurrence and magnitude of effects minor	No
44	Directive 2004/35/EC on environmental liability	2004 - present	Some companies within the construction sector have the potential to result in environmental damage e.g. water, air and waste. The Environmental Liability Directive holds those that cause environmental damage to account, whether the damage is a result of negligence or accidental.	Competitiveness - ensures that companies which cause environmental damage through their activities are held to account and do not gain a competitive advantage from not meeting their legal obligations Sustainability - helps to provide further protection for the environment	It is expected that the vast majority of companies that could cause environmental damage through their activities, act in accordance with the law and take precautions to avoid any damages. However implementation of the polluter pays principle could result in significant costs (fines). Overall expected magnitude of effects for the sector are minor	No
45	Directive 2006/11/EC on pollution cause by dischargers	2006 - present	Some manufacturers of construction products and equipment may be required to gain authorisation for the emission of listed substances into the environment as a result of their activities. This is likely to incur some costs (fees, implementation of BAT and preventative measures)	Although creates level playing field within EU, possible negative effects (on international competitiveness) if less restrictions outside EU. Sustainability - ensures no adverse effects on the environment	Will only apply to a small proportion of enterprises in the construction sector - expected likelihood of occurrence and magnitude of effect minor	No
46	Directive 2006/21/EC on waste from extractive industries	2006 – present	Requirements apply to waste generated by extraction, treatment, storage of mineral resources and the working of quarries.	Ensures a level playing field for enterprises in the construction sector. Sustainability - protects the environment and human health	Requirements apply to enterprises operating in the mining and extractive industry. Magnitude of expected effects expected to be minor (due to small portion of the overall turnover and employment in the construction sector)	No

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47	Directive 2006/118/EC on groundwater	2006 - present	Some manufacturers of construction products/equipment and enterprises in the mining/extractive industries may be required to take measures to prevent pollution of groundwater as a result of their activities. This is likely to incur some costs (fees, implementation of BAT and preventative measures)	Although creates level playing field within EU, possible negative effects (on international competitiveness) if less restrictions outside EU. Sustainability - ensures no adverse effects on the environment	Will only apply to a small proportion of enterprises in the construction sector - expected likelihood of occurrence and magnitude of effect minor	No
49	Directive 2008/50/EC on ambient air quality	2008 - present	Requirements mostly relate to national authorities - monitoring, air quality plans, providing information, annual report. However, construction works may be impacted (halted/delayed) if there is a risk of pollution levels exceeding thresholds.	Where works are halted for a significant length of time there could be impacts on profitability and competitiveness. Sustainability - curbs construction sector's contribution to poor ambient air quality	Occurrence of this situation unlikely - Expected likelihood of occurrence and magnitude of effects minor	No
50	Directive 2008/98/EC Waste Framework Directive	2008 - present	The Waste Framework Directive sets the following target for the construction sector: 70% preparing for re-use, recycling and other recovery of construction and demolition waste.	Competitive advantage for those companies diverting waste from landfill to meet the target. Possible negative effect compared to companies operating outside of the EU Sustainability - ensures the construction sector contributes to the implementation of the waste hierarchy and diverting waste from landfill where possible	Although the target applies to the construction sector, those companies involved in demolition and building activities are most likely to be affected, exact number unknown at present. Construction and demolition waste is one of the most voluminous waste streams and as such the implications of meeting the target could be significant.	Yes
51	Directive 2009/29/EC on EU Emissions Trading Scheme	2009 - present	Companies involved in energy-intensive industries such as steel works and production of iron, aluminium, metals, cement, lime, glass, and ceramics may qualify for the EU ETS and need to ensure the emission of GHGs does not exceed their allowances. There will be the need to ensure the use of BAT which will likely incur costs.	Competitiveness - creates a level playing field as applies to all companies (although smaller companies may be exempt). Sustainability - positive effect as GHG emissions reduced	Possibility for a significant proportion of manufacturers in the construction sector to be covered by scheme - expected likelihood of occurrence and magnitude of effects moderate	Yes

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53	Directive 2009/147/EC on birds	2009 - present	The Directive requires that certain activities that would disturb or harm protected species can only proceed in accordance with a licence (which can only be granted in a limited number of circumstances). It is could be the case that construction works may be stopped or altered in response to this requirement.	Sustainability - intended to prevent major adverse impacts on birds.	Small number of works likely to be effected by this requirement - expected likelihood of occurrence and magnitude of effects minor	No
54	Regulation 66/2010/EC on Eco-label scheme	2009 - present	A voluntary label for products mostly aimed at consumer products, currently (2013) only applies to a single type of construction product (flooring).	Competitiveness - label may be needed to market product in some Member States Sustainability - products are more environmentally friendly	Voluntary scheme - likelihood of occurrence and expected magnitude of effects is minor.	No
55	Directive 2010/75/EU on industrial emissions	2010 - present	The Directive applies to the production and processing of metals, mineral industry and the chemical industry. It is likely that enterprises within the construction sector would be involved in these activities.	Competitiveness - possible advantage for those operating without a permit, although at risk of fiscal punishment. Implementing BAT may incur significant costs. Sustainability - reduces the emission of pollutants into the environment (beneficial)	Exact number of enterprises that would be affected by the IED unknown. Costs of complying with the Directive are likely to be significant.	Yes
56	Directive 2011/65/EU on restriction of hazardous substances	2011 - present	Manufacturers of applicable electronic or electrical construction products and equipment (particularly power tools) must be designed and produced in line with the requirements set out in the legislation. Importers must check that equipment has been approved as meeting the required standards, while distributors must also ensure the rules are adhered to.	Creates level playing field and also applied to imported products Sustainability - Electrical and electronic construction products will not contain hazardous substances	Although the number of construction products/equipment covered by RoHS may be significant, the expected magnitude of effects is expected to be minor/moderate	No
57	Directive 2011/92/EU on Environmental Impact Assessment	2011 - present	Certain public and private projects, including construction works, will be required to undergo an EIA in the planning stages. This may involve the use of specialised staff. Possible implications for the project which may result in increased costs (materials, alterations, delays).	Sustainability - undertaking an EIA ensures a project does not result in significant environmental damage	The EIA Directive states that before a consent on certain public and private projects is given, those likely to have significant effects on the environment by virtue of their nature, size or location, shall be made subject to an assessment. A number of projects undertaken by the construction	Yes

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					sector could meet this requirement. The significance of the effects will vary greatly between projects, locations etc., however they could be significant.	
58	Directive 2012/18/EU on the control of major-accidents hazards involving dangerous substances (Seveso III)	2012 - present	Operators using large quantities of dangerous chemicals (metal refining) are obliged to take all the necessary measures to prevent major accidents e.g. deploying a major accident plan and producing a safety report (upper-tier only). Establishments are categorised depending on the amount of dangerous substances present (lower and upper tier - the latter are subject to more stringent requirements). This will entail compliance costs.	International competitiveness may be affected if less stringent requirements outside the EU. However, under Seveso III, efforts made to streamline and simplify to reduce the administrative burden. Sustainability - likelihood of negative effects on the environment (and human health) reduced	Proportion of manufacturers in construction sector which are effected is likely to be relatively small - expected likelihood of occurrence and magnitude of effects minor	No
59	Directive 2012/19/EU on WEEE	2012 - present	Producers of electrical and electronic construction products or equipment are required to make a contribution to cover the costs of collecting, treating and sustainably disposing of both non-household equipment and private electrical waste deposited at dedicated collection points.	Minimal impact on competitiveness Sustainability - beneficial impact on environment as more WEEE reused, recovered and recycled	Although the number of construction products/equipment covered by WEEE may be significant, the expected magnitude of effects is expected to be minor/moderate	No

Table A1-2: Final list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014

ID	Legislation – short title	Time in force	DIRECT EFFECTS on the construction sector and/or on the related sectors?	SPECIFIC EFFECTS on the construction sector and/or the related sectors, with regard to competitiveness or sustainability?	The expected likelihood of occurrence and magnitude of the effects is SIGNIFICANT?	Final List?	Reasons for inclusion/exclusion (including feedback from Commission inter-service discussions)
3	Directive 89/391/EEC OSH Framework	1989 – present	The OSH FWD forms the basis for a further 23 Directives. The OSH FWD introduces measures to encourage improvements in safety and health at work and is applicable to all sectors – both public and private – although some sectors (e.g. the armed forces and police) are exempt from certain provisions. The construction sector has been identified as one of the most dangerous in terms of occupational accidents and the obligations of the OSH FWD are applicable to the construction sector.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment, while excessive costs could lead to some construction activities moving out of the EU, thereby damaging international competitiveness.	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. A number of pieces of legislation have been brought into effect under the OSH FWD which apply to the construction sector (see below).	Yes	Underlying OSH framework reflected in many national approaches to OSH. Significant impacts expected in some areas associated with specific aspects (as highlighted below). Where not already considered separately, these impacts will be considered collectively.
6	Directive 89/656/EEC on the use of personal protective equipment	1989 – present	These requirements relate to all companies who are obliged to provide their workers with PPE.	As above	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	No	Impacts will be covered by analysis of OSH FWD, but in any event, a new regulation has been adopted in March 2016, reducing the relevance for this study.
7	Directive 90/269/EEC on manual handling of loads	1990– present	The requirements of Directive 90/269/EEC relate to all companies whose workers are involved in the manual handling of loads. Construction has been recognised as a high-risk sector due to the number and nature of manual handling activities.	As above	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	Yes	Although under the OSH FWD, this Directive is considered very pertinent to the construction sector and will be considered in its own right

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ID	Legislation – short title	Time in force	DIRECT EFFECTS on the construction sector and/or on the related sectors?	SPECIFIC EFFECTS on the construction sector and/or the related sectors, with regard to competitiveness or sustainability?	The expected likelihood of occurrence and magnitude of the effects is SIGNIFICANT?	Final List?	Reasons for inclusion/exclusion (including feedback from Commission inter-service discussions)
10	Directive 92/57/EEC on temporary or mobile construction sites	1992 – present	Directive 92/57/EEC was developed specifically to tailor the principles of the OSH FWD to the construction sector. ‘Temporary or mobile construction sites’ refers to any construction site at which building or civil engineering works are carried out.	As above	The Directive supplements the OSH FWD with provisions that are more stringent and tailored specifically to the construction sector. The requirements apply to all construction works and could be costly as all sites will need health and safety plans drawn up and implemented by trained personnel.	Yes	Although under the OSH FWD, this Directive is considered very pertinent to the construction sector and will be considered in its own right
14	Directive 98/24/EC on risk related to chemical agents at work	1998 – present	Workers involved in construction works or the manufacture of construction products or equipment could potentially be exposed to chemical agents (particularly dusts and fumes) whilst at work.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to many construction works and many manufacturers of construction products and equipment. Magnitude of effects may be significant.	No	Impacts will be covered by analysis of OSH FWD
18	Directive 2002/44/EC on exposure of workers to risks from physical agents (noise)	2002 – present	Employers are required to protect workers from the risks from occupational exposure to noise.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works, including demolition, and some manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	No	Impacts will be covered by analysis of OSH FWD
19	Directive 2003/10/EC on exposure of workers to risks from physical agents (vibration)	2003 – present	Employers are required to protect workers from the risks from occupational exposure to vibrations.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works and some manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	No	Impacts will be covered by analysis of OSH FWD

Table A1-2: Final list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014

ID	Legislation – short title	Time in force	DIRECT EFFECTS on the construction sector and/or on the related sectors?	SPECIFIC EFFECTS on the construction sector and/or the related sectors, with regard to competitiveness or sustainability?	The expected likelihood of occurrence and magnitude of the effects is SIGNIFICANT?	Final List?	Reasons for inclusion/exclusion (including feedback from Commission inter-service discussions)
21	Directive 2004/37/EC on carcinogens and mutagens at work	2004 – present	Workers involved in construction works or the manufacture of construction products or equipment could potentially be exposed to carcinogens and mutagens whilst at work.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment. Sustainability - possible benefits for the environment if less toxic chemicals/products used.	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	No	The most significant CMR associated with construction is asbestos and this is already being examined in its own right (see below)
24	Directive 2006/42/EC on machinery	2006 – present	Defines essential health and safety requirements of general application, supplemented by a number of more specific requirements for certain categories of machinery. This is applicable to manufacturers of construction equipment.	Creates a level playing field for enterprises. Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	Manufacturers of construction equipment will be affected. It is expected that many activities relating to the requirements would be undertaken anyway (business as usual) as manufacturers ensure their products are safe for their intended use. However significant effects where the requirements are not met.	No	There is an ongoing evaluation of the Machinery Directive by DG GROW as one of its REFIT actions. As such, further work on construction-related aspects would overlap with and, possibly, duplicate this work.
27	Directive 2009/104/EC on the use of work equipment	2009 – present	These requirements relate to all those using work equipment.	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment.	The requirements will apply to all construction works and the majority of manufacturers of construction products and equipment. Magnitude of effects expected to be significant.	No	Impacts will be covered by analysis of OSH FWD
28	Directive 2009/148/EC on exposure to asbestos at work	2009 – present	Asbestos-related diseases remain one of the key occupational health problems in Europe and statistics clearly show that people working in the construction sector are at the highest risk of illness/death from asbestos-related disease. The Asbestos Directive sets out specific requirements for those working with asbestos, which is an	Taking measures to protect the health of workers ensures the sector remains sustainable in terms of employment. It also helps to protect the sector from compensation claims. Nevertheless, purchasing adequate PPE and implementing other measures to protect workers from the risks posed by asbestos could	Huge quantities of asbestos have been used in Europe throughout the 20 th Century and construction workers may come into contact with asbestos in a wide variety of different contexts (while building, renovating, or demolishing). The health implications of exposure to asbestos are significant if requirements are not adhered to.	Yes	Asbestos is the most significant CMR associated with construction.

Table A1-2: Final list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014

ID	Legislation – short title	Time in force	DIRECT EFFECTS on the construction sector and/or on the related sectors?	SPECIFIC EFFECTS on the construction sector and/or the related sectors, with regard to competitiveness or sustainability?	The expected likelihood of occurrence and magnitude of the effects is SIGNIFICANT?	Final List?	Reasons for inclusion/exclusion (including feedback from Commission inter-service discussions)
			activity that occurs primarily in the construction sector.	be costly for the construction sector, thereby reducing the global competitive position of EU firms.			
33	Regulation 1272/2008/EC CLP	2009 – present	Construction products containing, but not limited to substances which are, flammable, explosive, toxic, etc. must be classified, labelled and packaged in accordance with the CLP Regulation.	Competitiveness - ensures a level playing field where the use of hazardous substances is concerned. Sustainability - may reduce the number of hazardous substances used in construction products	CLP will apply to some manufacturers of construction products. The obligations relate to provision of information; classification, labelling and packaging. The expected magnitude of effects is significant.	No	There is an ongoing evaluation focusing on CLP by DG GROW as one of its REFIT actions. As such, further work on construction-related aspects would overlap with and, possibly, duplicate this work.
50	Directive 2008/98/EC Waste Framework Directive	2008 – present	The Waste Framework Directive sets the following target for the construction sector: 70% preparing for re-use, recycling and other recovery of construction and demolition waste.	Competitive advantage for those companies diverting waste from landfill to meet the target. Possible negative effect compared to companies operating outside of the EU Sustainability - ensures the construction sector contributes to the implementation of the waste hierarchy by diverting waste from landfill where possible	Although the target applies to the construction sector, those companies involved in demolition and building activities are most likely to be affected. Construction and demolition waste is one of the most voluminous waste streams in the EU and, as such, the implications of meeting the target could be significant.	Yes	An important Directive to consider
51	Directive 2009/29/EC on EU Emissions Trading Scheme	2009 - present	Companies involved in energy-intensive industries such as steel works and production of iron, aluminium, metals, cement, lime, glass, and ceramics may qualify for the EU ETS and need to ensure the emission of GHGs does not exceed their allowances. There will be the need to ensure the use of BAT which will likely incur costs.	Competitiveness - creates a level playing field as applies to all companies (although smaller companies may be exempt). Sustainability - positive effect as GHG emissions reduced	Possibility for a significant proportion of manufacturers in the construction sector to be covered by scheme - expected likelihood of occurrence and magnitude of effects moderate	No	There are over 11,000 heavy energy-using installations in power generation and manufacturing covered by the EU ETS. These include over 250 cement production facilities (many of which are operated by a few large companies) as well other facilities producing materials used in construction. While it is accepted that the EU ETS has led to significant impacts for some, the impacts

Table A1-2: Final list of Environment and Health & Safety legislation relevant to the construction sector in force between 2004 and 2014

ID	Legislation – short title	Time in force	DIRECT EFFECTS on the construction sector and/or on the related sectors?	SPECIFIC EFFECTS on the construction sector and/or the related sectors, with regard to competitiveness or sustainability?	The expected likelihood of occurrence and magnitude of the effects is SIGNIFICANT?	Final List?	Reasons for inclusion/exclusion (including feedback from Commission inter-service discussions)
							to many in the sector are slight.
55	Directive 2010/75/EU on industrial emissions	2010 – present	The Directive applies to the production and processing of metals, the mineral industry and the chemical industry. It is likely that enterprises within the construction sector would be involved in these activities.	Competitiveness - possible advantage for those operating without a permit, although at risk of fiscal punishment. Implementing BAT may incur significant costs. Sustainability - reduces the emission of pollutants into the environment (beneficial)	Exact number of enterprises that would be affected by the IED is unknown. Costs of complying with the Directive are likely to be significant.	No	While it is accepted that the IED has led to significant impacts for some, the impacts to many in the sector are slight.
57	Directive 2011/92/EU on Environmental Impact Assessment	2011 – present	The EIA Directive applies to public and private ‘projects’ which are likely to have significant effects on the environment (Article 1). For the purposes of the Directive, ‘project’ means “the execution of construction works or of other installations or schemes” or “other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources” (Article 2(a)). This EIA Directive is, therefore, directly applicable to the construction sector.	The EIA Directive aims to ensure that the environmental impacts of projects (e.g. construction works) are considered before any decisions are made about whether or not the project should go ahead. Where EIA is undertaken effectively, it should lead to improvements in terms of sustainability by ensuring that projects do not result in significant environmental damage. Under the EIA Directive, certain projects will be required to complete an EIA in the planning stages, which may involve the use of specialised staff and could result in increased costs (e.g. materials, alterations, delays, etc.).	The EIA Directive is applicable to a wide variety of different projects (as outlined in Annexes I and II of the Directive). The magnitude of the effects will vary greatly between projects, locations etc., however they could be significant, particularly if they impose an additional cost on smaller projects.	Yes	Continuing development and re-development without undue hindrance is vital for the construction sector.

Annex 2: Transposition in the ten selected MS

Table A2-1: National Provisions for Belgium, Denmark, France, Germany and Italy					
Legislation	Belgium	Denmark	France	Germany	Italy
OSH Framework	Loi du 4 août 1996 relative au bien-être des travailleurs lors de l'exécution de leur travail	Danish Working Environment Act Executive Order No. 559 of 17 June 2004 on the Performance of Work, as subsequently amended	Loi n°91-1414 du 31 décembre 1991 modifiant le code du travail et le code de la santé publique en vue de favoriser la prévention des risques professionnels et portant transposition de directives européennes relatives à la santé et à la sécurité du travail	Arbeitsschutzgesetz	Decree 626/94 and its integration, and later incorporated into the "Testo Unico" 81/2008 (<i>testo unico sulla salute e sicurezza sul lavoro</i>)
Manual Handling	Arrêté royal concernant la manutention manuelle de charges – 12 août 1993	It has been partially implemented through Executive Order No. 846 of 29 June 2015 on Manual Handling of Loads relating to offshore oil and gas operations etc.	Décret n°92-958 du 3 septembre 1992 relatif aux prescriptions minimales de sécurité et de santé concernant la manutention manuelle de charges comportant des risques, notamment dorso-lombaires, pour les travailleurs et transposant la directive (C.E.E.) n° 90-269 du conseil du 29 mai 1990	Verordnung über Sicherheit und Gesundheitsschutz bei der manuellen Handhabung von Lasten bei der Arbeit (Lastenhandhabungsverordnung -LasthandhabV)	This is a directive covered under the "testo unico" for Health and safety at workplace. As a consequence, like the OSH Framework, the relevant law is the Decree 626/94 and its integration, later incorporated into the "Testo Unico" 81/2008
Temp/ Mobile Construction Sites	Arrêté royal du 25 janvier 2001 concernant les chantiers temporaires ou mobiles	Executive Order on Building and Construction	Loi no 93-1418 du 31 décembre 1993 modifiant les dispositions du code du travail applicables aux opérations de bâtiment et de génie civil en vue d'assurer la sécurité et de protéger la	Verordnung über Sicherheit und Gesundheitsschutz auf Baustellen (Baustellenverordnung - BaustellIV)	The Legislative decree 494/1996 firstly transposed the directive. However, the law was later incorporated under Chapter IV of the Testo Unico" 81/2008 (<i>testo unico sulla salute e sicurezza sul</i>

Table A2-1: National Provisions for Belgium, Denmark, France, Germany and Italy					
Legislation	Belgium	Denmark	France	Germany	Italy
			santé des travailleurs et portant transposition de la directive du Conseil des communautés européennes no 92-57 en date du 24 juin 1992		<i>lavoro</i>
Asbestos	Arrêté royal du 16 mars 2006 relatif à la protection des travailleurs contre les risques liés à l'exposition à l'amianté	Executive Order no. 1792 of December 18, 2015 on Asbestos	<p>Arrêté du 23 février 2012 définissant les modalités de la formation des travailleurs à la prévention des risques liés à l'amianté</p> <p>- Arrêté du 14 août 2012 relatif aux conditions de mesurage des niveaux d'empoussièrement, aux conditions de contrôle du respect de la valeur limite d'exposition professionnelle aux fibres d'amianté et aux conditions d'accréditation des organismes procédant à ces mesurages- Arrêté du 8 avril 2013 relatif aux règles techniques, aux mesures de prévention et aux moyens de protection collective à mettre en œuvre par les entreprises lors d'opérations comportant un risque d'exposition à l'amianté</p>	Verordnung zum Schutz vor Gefahrstoffen (Gefahrstoffverordnung - GefStoffV)	This directive has not been formally transposed into the Italian system yet. However, the Asbestos directive 2003/18/EC was transposed and then incorporated under the <i>Testo Unico sulla sicurezza sul lavoro - CAPITOLO III (T.U.81/2008)</i>

Table A2-1: National Provisions for Belgium, Denmark, France, Germany and Italy					
Legislation	Belgium	Denmark	France	Germany	Italy
Waste Framework Directive	le décret du 10 mai 2012 transposant la Directive 2008/98/CE du Parlement européen et du Conseil du 19 novembre 2008 relative aux déchets et abrogeant certaines directives (M.B. 29.05.2012)	Environment Protection Act and specifics contained in the Waste Order	- LOI n° 2010-788 du 12 juillet 2010 portant engagement national pour l'environnement (1) - Ordonnance n° 2010-1579 du 17 décembre 2010 portant diverses dispositions d'adaptation au droit de l'Union européenne dans le domaine des déchets - Décret n° 2011-828 du 11 juillet 2011 portant diverses dispositions relatives à la prévention et à la gestion des déchets	Kreislaufwirtschaftsgesetz (KrWG)	Legislative Decree n. 205, 30 December 2010 " <i>Disposizioni di attuazione della direttiva 2008/98/CE del Parlamento europeo e del Consiglio del 19 novembre 2008 relativa ai rifiuti e che abroga alcune direttive</i> "
		Waste and Mineral Resources Tax Act		Deponieverordnung (DepV)	
		Environment Protection Act and specifics contained in the Waste Order		Kreislaufwirtschaftsgesetz (KrWG)	
EIA Directive	le décret relatif au Livre Ier du Code de l'Environnement, ses arrêtés d'exécution et leurs multiples modifications	Act on Planning	Décret n° 2012-616 du 2 mai 2012 relatif à l'évaluation de certains plans et documents ayant une incidence sur l'environnement	Gesetz über die Umweltverträglichkeitsprüfung (UVPG)	This directive has not been formally transposed into the Italian system yet. However, Council Directive 97/11/EC and Directive 2003/35/EC was transposed, and were incorporated into the the Decree 152/2006 (the Environmental law - testo unico ambiente) that regulates Environmental Impact Assessment at national level

Table A2-2: National Provisions for Ireland, Poland, Romania, Spain, UK.					
Legislation	Ireland	Poland	Romania	Spain	UK
OSH Framework	Safety Health and Welfare at Work (SHWW) Act 2005	Labour Code	Law No. 319 of 14 July 2006	Law 31/1995, 8 November, about the Prevention of Occupational Risks (<i>Ley de Prevención de Riesgos Laborale</i>)	Health and Safety at Work Act 1974 (E, W & S) and Management of Health and Safety at Work Regulations 1999 (E, W & S), Health and Safety at Work (Northern Ireland) Orders 1978 and the Management of Health and Safety at Work Regulations (Northern Ireland) 2000
Manual Handling	Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007)	Labour Code	Government Decision no 1051/2006 concerning the minimum safety and health requirements for the manual handling of loads where there is a risk particularly of back injury to workers	Real decreto 487/1997, 14 de abril, sobre disposiciones mínimas de seguridad y salud relativas a la manipulación manual de cargas que entrañe riesgos, en particular dorsolumbares, para los trabajadores	The Manual Handling Operations Regulations 1992
Temp/mobile Construction Sites	Safety Health and Welfare at Work (Construction) Regulations 2013 (SI 291)	Labour Code	Government Decision no 300/2006 on the minimum safety and health requirements for temporary or mobile construction sites	Real Decreto 1627/1997, 24 de octubre, por el que se establecen disposiciones mínimas de seguridad y de salud en las obras de construcción. This law was then modified by Real Decreto 604/2006	Construction Design Management Regulations 1994 (Directive is implemented by means of regulations 1 to 36) Construction Design Management Regulations 2007

Table A2-2: National Provisions for Ireland, Poland, Romania, Spain, UK.					
Legislation	Ireland	Poland	Romania	Spain	UK
Asbestos	Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 (S.I. No. 386 of 2006) (as amended by 2010 Regulations)	Regulation on the tests and measurements of agents harmful to the health of worker. (Pursuant to art. 227 § 2 of the Act of 26 June 1974. - Labour Code)	Government Decision no 1875/2005 on the protection of workers from the risks related to exposure to asbestos at work	This directive has not been formally transposed into the Spanish system yet. However, the Real Decreto 396/2006 (<i>por el que se establecen las disposiciones mínimas de seguridad y salud aplicables a los trabajos con riesgo de exposición al amianto</i>) transposed the Directive 2003/18/EC.	The Control of Asbestos Regulations 2012
Waste Framework Directive	Waste Management Act 1996, as amended	Waste Act 2012	Law no. 211 of 15 November 2011 on Waste Regime; Decision no. 856 of August 16, 2002 on evidence of waste management and approving the list of wastes, including hazardous wastes	Ley 22/2011, 28 July, " <i>de residuos y suelos contaminados</i> "	The Waste Regulations 2011
	Waste Management (Landfill Levy) Regulations 2015	Environmental Protection Act 2001	The Environment Fund (Ordinance no. 31/2013 amends and supplements Government Emergency Ordinance no. 196/2005 regarding the Environment Fund)		The Landfill Tax Regulations 1996; The Landfill Tax (Qualifying Material) Order 2011/ Scottish Landfill Tax (Qualifying Material) Order 2015
	Waste Management Act 1996, as amended	Waste Act 2012	Law no. 211 of 15 November 2011 on Waste Regime; Decision no. 856 of August 16, 2002 on evidence of waste management and approving the list of wastes, including hazardous wastes		The Hazardous Waste (England and Wales) Regulations 2005/ the Hazardous Waste (Northern Ireland) Regulations 2005; The Special Waste (Scotland) Regulations 1996

Table A2-2: National Provisions for Ireland, Poland, Romania, Spain, UK.					
Legislation	Ireland	Poland	Romania	Spain	UK
EIA Directive	Planning and Development Act 2000 and specifics contained in the Planning and Development Regulations 2001-2015	EIA Act of Law 2008. Also Regulation of Council of Ministers of 9 November 2010 on projects likely to have significant effects on the environment.	Environmental Protection Law 137/1995; Government Decision no. 445/2009 o the assessment of certain public and private projects on the environment; Order no. 135/2010 approving the methodology for the implementation of environmental impact assessment for public and private projects	Ley 21/2013, de 9 de diciembre, de evaluación ambiental.	Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (England, Wales and Scotland) The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2012

Table A2-3: OSH Framework Directive (Directive 89/391/EEC)	
Key requirements	Transposition and main differences with national legislation
Employer shall have a duty to ensure the safety and health of workers in every aspect related to the work (Art 5) Note: Use of external services pursuant to Art 7(3) does discharge them from responsibilities in this area.	Transposed in all ten countries. No differences known although some countries have set more stringent requirements with regard to the RA (DK, BE, IE, RO, ES, UK). Also degree to which external services are used vary significantly across countries.
Employer shall take measures necessary for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organization and means (Art 6)	Transposed in all ten countries. No significant differences known but some countries appear to have implemented more detailed or stringent requirements than those specified in the provisions of the Framework Directive (BE, DK, FR, IE, PL, RO, UK, ES)
Employer shall designate “one or more workers to carry out activities related to the protection and prevention of occupational risks” (Art 7) Note: can enlist external services	Transposed in all ten countries but there are slight variations in implementation. Spain for instance has set out a requirement on the number of delegates based on the size of the company and number of employees.
Duties on the employer with regards to first aid, firefighting and evacuation of workers, serious and imminent danger and what should be done in certain situations (Art 8)	Transposed in all ten countries. No differences known
Employers shall be in possession of an assessment of the risks to safety and health at work, including those facing groups of workers exposed to particular risks (Art 9)	Transposed in all ten countries.. No significant differences known

Table A2-3: OSH Framework Directive (Directive 89/391/EEC)	
Key requirements	Transposition and main differences with national legislation
Every employer shall prepare, or cause to be prepared, a written statement (“safety statement”), based on the identification of the hazards and the risk assessment carried out under section 19, specifying the manner in which the safety, health and welfare at work of his or her employees shall be secured and managed (Sec 20)	Transposed in all ten countries.. No significant differences known
Employers shall keep a list of occupational accidents resulting in a worker being unfit for work for more than three working days	Transposed in all ten countries, although some countries have applied different criteria. Spain for instance has set the requirement on 1 day (Article 23.1 para e)
Employers shall draw up, for the responsible authorities and in accordance with national laws and/or practices, reports on occupational accidents suffered by his workers	Transposed in all ten countries. No significant differences known
The employer shall take appropriate measures so that workers and/or their representatives in the undertaking and/or establishment receive, in accordance with national laws and/or practices which may take account, inter alia, of the size of the undertaking and/or establishment, all the necessary information (Art 10)	Transposed in all ten countries. No significant differences known

Table A2-4: Directive on the Manual Handling of Loads (90/269/EEC)	
Key requirements	Transposition and main differences with national legislation
The employer shall take appropriate organizational measures, or shall use the appropriate means, in particular mechanical equipment, in order to avoid the need for the manual handling of loads by workers (Art 3)	Transposed in all ten countries. No significant differences known
Where the need for the manual handling of loads by workers cannot be avoided, the employer shall take the appropriate organizational measures, use the appropriate means or provide workers with such means in order to reduce the risk involved in the manual handling of such loads, having regard to Annex I (Art 3)	Transposed in all ten countries. No significant differences known
Wherever the need for manual handling of loads by workers cannot be avoided, the employer shall organize workstations in such a way as to make such handling as safe and healthy as possible (Art 4)	Transposed in all ten countries. No significant differences known
Employers must ensure that workers and/or their representatives receive general indications and, where possible, precise information on: - the weight of a load, -the centre of gravity of the heaviest side when a package is eccentrically loaded (Art 6)	Transposed in all ten countries. No significant differences known

Table A2-4: Directive on the Manual Handling of Loads (90/269/EEC)	
Key requirements	Transposition and main differences with national legislation
Consultation and participation of workers and/or of their representatives shall take place in accordance with Article 11 of Directive 89/391/EEC on matters covered by this Directive, including the Annexes thereto (Art 7)	Transposed in all ten countries. No significant differences known

Table A2-5: Directive on Temporary or Mobile Construction Sites (92/57/EEC)	
Key requirements	Transposition and main differences with national legislations
The client or the project supervisor shall appoint one or more coordinators for safety and health matters (Art 3) (duties covered by Art 6)	Transposed in all ten countries. Different country implementation. Spanish legislation sets out qualifications for OSH specialists which will depend on the prevention tasks necessary in the company but set a minimum of coordinators according to size of the company
The client or the project supervisor shall ensure that prior to the setting up of a construction site a safety and health plan is drawn up in accordance with Article 5 (b) (Art 3)	Different country implementation. Derogations in relation to SMEs have been applied (DK)
The client or the project supervisor shall communicate a prior notice drawn up in accordance with Annex III to the competent authorities before work starts (Art 3) Note: applies if: -work is scheduled to last longer than 30 working days and on which more than 20 workers are occupied simultaneously, or -the volume of work is scheduled to exceed 500 person-days,	Transposed in all ten countries. No significant differences known
The project supervisor, or where appropriate the client, shall take account of the general principles of prevention concerning safety and health referred to in Directive 89/391/EEC during the various stages of designing and preparing the project (Art 4)	Different country implementation. Spain for instance has listed dangerous activities or processes with special hazards, selected on the basis of statistical data and making mandatory the application of preventive measures in such cases.
Without prejudice to Article 10 of Directive 89/391/EEC, workers and/or their representatives shall be informed of all the measures to be taken concerning their safety and health on the construction site (Art 11)	Transposed in all ten countries. No significant differences known
Employers and other groups of persons must meet the minimum safety and health requirements for construction sites set out in Annex IV (Art 9 and 10)	Transposed in all ten countries. No significant differences known

Consultation and participation of workers and/or of their representatives shall take place in accordance with Article 11 of Directive 89/391/EEC on matters covered by Articles 6, 8 and 9 of this Directive, ensuring whenever necessary proper coordination between workers and/or workers' representatives in undertakings carrying out their activities at the workplace, having regard to the degree of risk and the size of the work site.	Transposed in all ten countries. No significant differences known
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Table A2-6: Asbestos Directive (2009/148/EC)	
Key requirements	Transposition and main differences with national legislations
Risk Assessment where there is a risk of exposure to dust arising from asbestos or materials containing asbestos to determine the nature and degree of the workers' exposure (Art 3) Note: should be subject to consultation workers and/or their representatives	Transposed in all ten countries. Some countries however have broadened the requirements (e.g. DE has included other dangerous substances)
For all activities referred to in Article 3 (1), the exposure of workers to dust arising from asbestos or materials containing asbestos at the place of work must be reduced to as low a level as is reasonably practicable and in any case below the limit values laid down in Article 8 (Art 6)	Transposed in all ten countries. Some have more stringent requirements. In the UK for instance, the legislation uses a 4-hour weighted average instead of 8 hours. Asbestos Regs Art 2(1)
Activities must be notified to the responsible authority of the Member State, including at least a brief description of: -The types and quantities of asbestos used, -The activities and processes involved, -The products manufactured (Art 4)	Transposed in all ten countries. No significant differences known
Measurement of asbestos in the air at the place of work shall be carried out in accordance with the reference method described in Annex I or any other method giving equivalent results. Such measurement must be planned and carried out regularly, with sampling being representative of the personal exposure of the worker to dust arising from asbestos or materials containing asbestos (Art 7). -must consult workers and/or their representatives before sampling -sampling undertaken by suitably qualified personnel -sampling at least every 3 months	Transposed in all ten countries. No significant differences known
In the case of all activities referred to in Article 3 (1), appropriate measures shall be taken to ensure that workers and their representatives in the undertaking or establishment receive adequate information (Art 14)	Transposed in all ten countries. No significant differences known
A plan of work shall be drawn up before demolition work or work on removing asbestos and/or asbestos-containing products from buildings, structures, plant or installations or from ships is started (Art 12)	Transposed in all ten countries. No significant differences known

An assessment of each worker's state of health must be available prior to the beginning of exposure to dust arising from asbestos or materials containing asbestos at the place of work (Art 15)	Transposed in all ten countries but some have more stringent requirements (BE, FR, UK, PO, IE). For example, the UK periodicity of health surveillance must take place at intervals of at least once every 2 years [for licensable work, 3 years for non-licensable work], or such shorter time as the relevant doctor may require
The employer must enter the workers responsible for carrying out the activities referred to in Article 3 (1) in a register, indicating the nature and duration of the activity and the exposure to which they have been subjected (Art 16)	Transposed in all ten countries. No significant differences known

Table A2-7: EIA Directive (85/337/EEC)	
EU Legislation measures	Transposition and main differences with national legislations
Member States shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment by virtue inter alia, of their nature, size or location are made subject to an assessment with regard to their effects. These projects are defined in Article 4.	Transposed in all 10 countries. No significant differences known
Article 4 ¹ . (Art 2(1)). Projects under Annex I will be subject to an assessment whereas for those in Annex II a determination whether they shall be subject to an EIA based on an evaluation on a case by case basis or according to thresholds set by the MS or a combination of these.	Transposed in all 10 countries although with differences. In DK for instance, initial implementation only covered Annex I and onshore projects. This has been addressed in 1994 to include Annex II and offshore projects after criticism from the European Commission. In IE, Schedule 5, Part 2 of the Planning and Development Regulations 2001 to 2015, which transposes Annex II, includes a wide range of construction projects (with mandatory thresholds for EIA).
Article 3 notes that the environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: a) human beings, fauna and flora, b) soil, water, air, climate and the landscape,	Transposed in all 10 countries although with some difference. ES for instance makes particular regard to Natura 200 sites.

¹ Art 4(1). Subject to Article 2(4), projects listed in Annex I shall be made subject to an assessment in accordance with Articles 5 to 10. Art 4(2). Projects listed in Annex II shall be made subject to an assessment, in accordance with Articles 5 to 10, where MS consider that their characteristics so require. To this end MS may inter alia specify certain types of projects as being subject to an assessment or may establish the criteria and/or thresholds necessary to determine which of the projects of the classes listed in Annex II are to be subject to an assessment in accordance with Articles 5 to 10.

Table A2-7: EIA Directive (85/337/EEC)	
EU Legislation measures	Transposition and main differences with national legislations
c) material assets and the cultural heritage d) the interaction between the factors referred to in points (a), (b), and (c)	
Article 5 sets out a requirement on MS to ensure that the developer provides the information as specified in Annex IV,	
Article 6 sets out requirements on public information. Member States shall designate the authorities to be consulted, either in general terms or on a case-by-case basis. The information gathered pursuant to Article 5 shall be forwarded to those authorities. Detailed arrangements for consultation shall be laid down by the Member States.	Transposed in all 10 countries. No significant differences known

Table A2-8: Waste Framework Directive	
EU Legislation measures	Transposition and main differences with national legislations
Implementation of the waste hierarchy (Art 4)	Transposed in all ten MS. No significant differences known
Sets out the conditions upon which a substance or product may be regarded as a by-product (Art 5)	Transposed in all ten MS. No significant differences known
Sets out the conditions upon which a specified waste shall cease to be waste (Art 6)	Transposed in all ten MS. No significant differences known
Extended producer responsibility (Art 8) (e.g. take back schemes)	Transposed in all ten MS. No significant differences known
Sets out a requirement for MS to apply measures to ensure waste undergoes recovery operations (Art 10) (separate collection where practicable)	Transposed in all ten MS.. No significant differences known
Measures to promote the reuse/preparing for reuse activities and high quality recycling (separate collection where practicable) (Art 11)	Transposed in all ten MS. No significant differences known
Measures to meet targets provided in Directive (Art 11)	Transposed in all ten MS. No significant differences known

Annex 3: Base data

A3.1 Overview

This Annex provides some of the background data and information, gathered through literature review, which is referred to in the main body of the report.

A3.2 Trends in the construction sector

In 2014, the EU had the largest construction sector globally, with total construction output for the EU-28 being €1,211 billion, compared to the USA at €723 billion and Japan at €345 billion; hence the reason it is considered to be particularly important to the EU as a whole.

According to the European Construction Industry Federation (FIEC²), the main activities of the European construction industry in 2014 were non-residential (32%), rehabilitation and maintenance (28%), civil engineering (20.6%) and new house building (19.4%). Indeed, contractors, manufacturers of construction products and professional construction services generate around 10% of the EU's GDP and provide 20 million direct jobs³.

Figure A3-1 illustrates the changes in turnover in each of the four sub-sectors between 2005 and 2014, where data are available. The construction contractors' sub-sector has the highest turnover, peaking at just over €1.6 trillion, though there is a noticeable decline after 2008, as the sector reacted to the global economic downturn. The other sub-sectors have seen little change and all sub-sectors appear to be growing at the same rate between 2008 and 2014. Between 2008 and 2014, the construction contractors sector represents approximately the 67% of the total.

Since the beginning of the economic crisis, the construction sector has been severely affected. Figure A3-2 shows how the volume of production of new building⁴ has experienced a decline across the EU 28, with some countries such as Ireland and Spain experiencing an even more dramatic decline in production.

The negative economic trend is also reflected in the number of job losses. Eurostat data indicates that the construction contractors sector (i.e. construction of new building and specialized construction services) has lost 3.3 million jobs in the period between 2007 and 2014 in the EU 28. Focusing on the 10 countries analysed for this study, Figure A3-3 compares the number of persons employed just before the economic crisis in 2007 and the current level of employment. With the exception of Germany and Belgium, all the other countries⁵ have experienced a reduction in employment during the economic crisis. This reduction in employment is also reflected in the reduction of the total number of enterprises operating in the construction contractors sector, shown in Figure A3-4 that compares the values pre-crisis with values in 2014.

² FIEC (2015): FIEC Key Figures Activity 2014 Construction in Europe (Edition 2015), accessed at: <http://www.fiec.eu/en/the-construction-industry/in-figures.aspx>

³ European Commission (2013): Industrial policy indicators and analysis – special feature: the construction sector (2013), accessed at: <http://ec.europa.eu/DocsRoom/documents/4060/attachments/1/translations/en/renditions/native>

⁴ Construction of buildings refers to NACE code F41.

⁵ Recent data for Ireland are not available and, as such, the figure covers nine of the 10 selected countries.

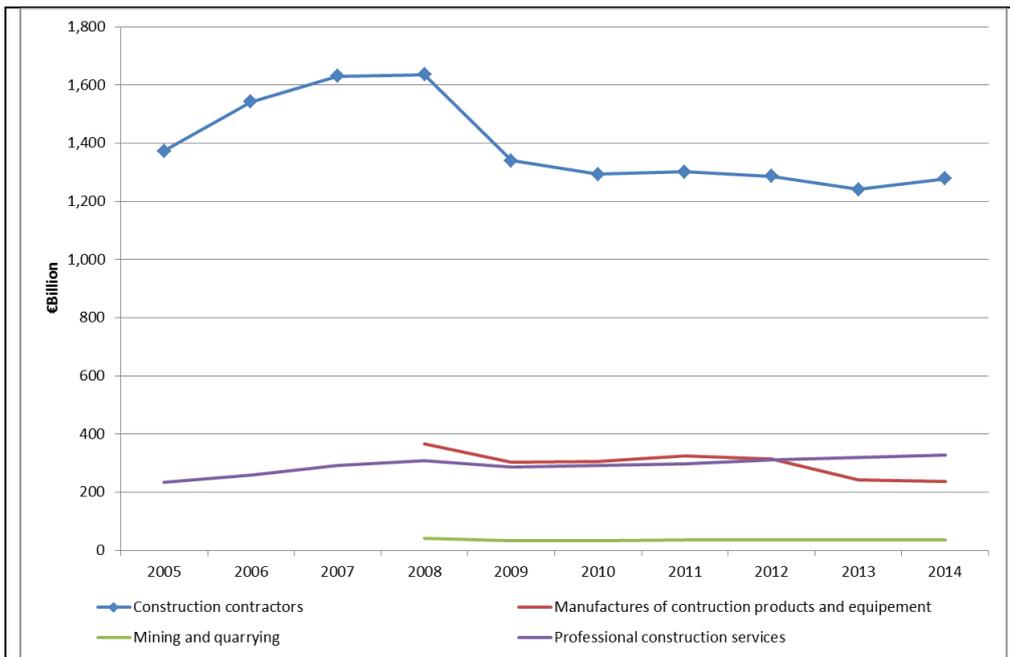


Figure A3-1: Turnover of EU-28 construction sectors, 2005-2014
 Source: Eurostat – Structural Business Statistics

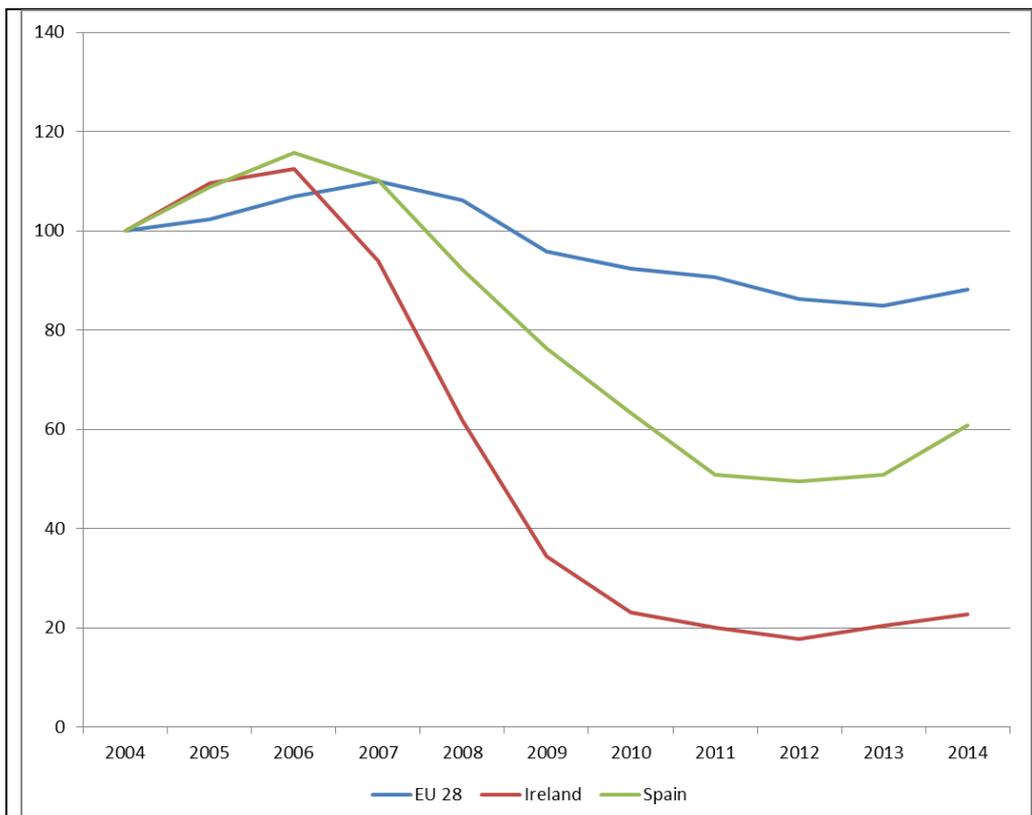


Figure A3-2: Construction of new buildings - Volume of production (index 2004=100)
 Source: Eurostat

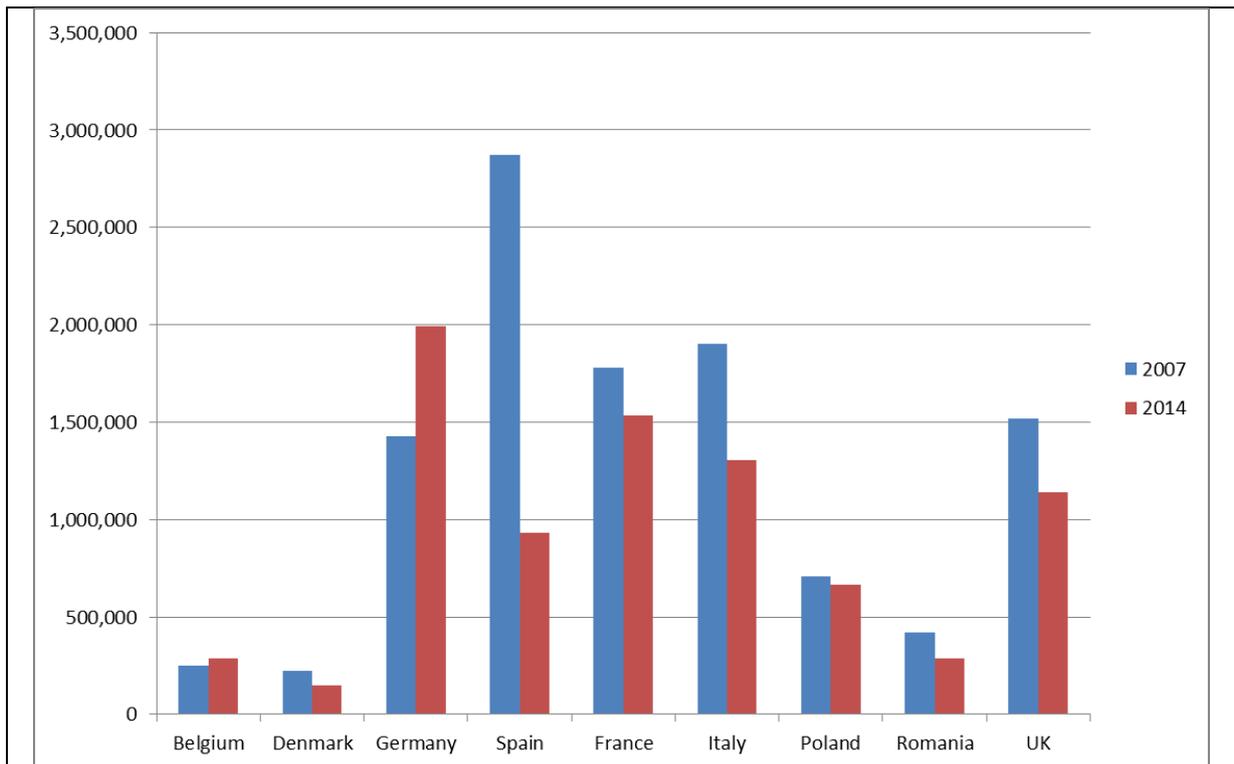


Figure A3-3: Number of persons employed in the construction contractors sector, selected countries – 2007 and 2014. Source: Eurostat

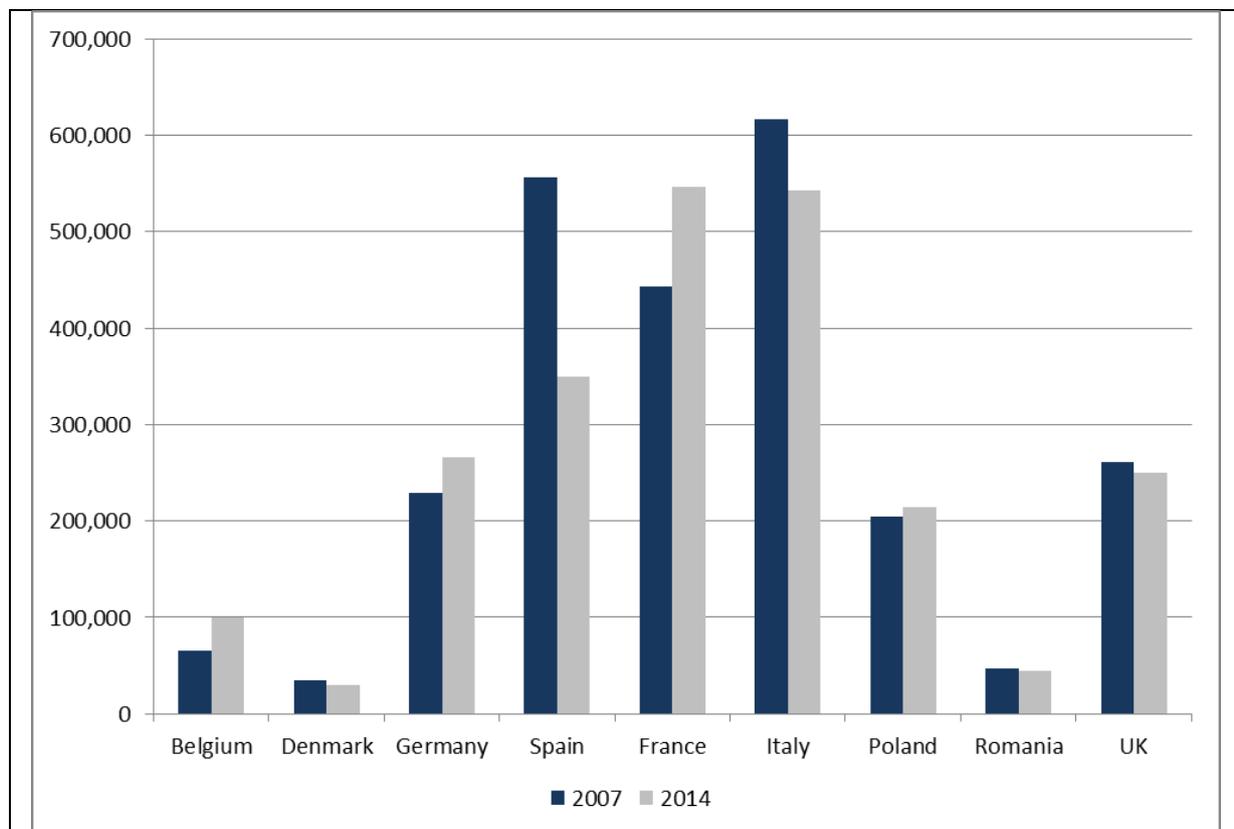
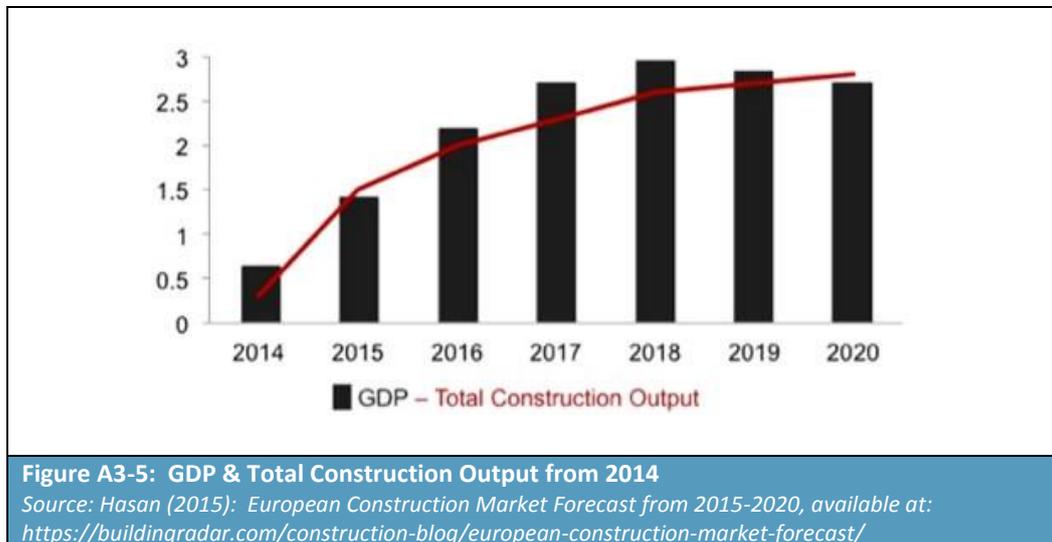


Figure A3-4: Number of enterprises in the construction contractors sector, selected countries – 2007 and 2014. Source: Eurostat

The outlook for the construction sector is however more positive for the future. Since 2014, most EU economies are experiencing growth which may bring economic growth for the construction sector. Research analysts predict that construction activity will increase again from 2015, with growth of up to 3% per annum, with the greatest growth in the new residential sector⁶.



A3.3 OSH trends in the construction sector

Figure A3-6 shows annual figures for 2012, based on Eurostat data, for fatal and non-fatal accidents at work by economic activity. It shows that the construction sector accounts for the largest percentage of fatal accidents among all economic activities in the EU.

Some headline indicators are as follows:

- More than one in five (22.2 %) fatal accidents⁷ at work in the EU-28 took place within the construction sector in 2012, despite the EU construction sector only accounting for 9.5% of the total EU workforce (defined as NACE Section F, and based on 2015 data).
- The manual handling of loads is an important risk factor for musculoskeletal disorders. Approximately 60% of workers in the construction sector are exposed to manual handling of loads and musculoskeletal disorders are some of the most common forms of ill health among construction workers. It has been estimated that up to 30% of the EU's construction workforce may be affected by musculoskeletal disorders.⁸
- According to the World Health Organisation, approximately half of the deaths from occupational cancer are estimated to be caused by asbestos (although this includes non-

⁶ Hasan S (2015): *European Construction Market Forecast from 2015-2020*, available at: <https://buildingradar.com/construction-blog/european-construction-market-forecast>

⁷ A fatal accident at work refers to an accident at work which leads to the death of a victim within one year of the accident.

⁸ EU-OSHA (no date): *Musculoskeletal disorders in construction*, available at: http://www.osha.mdds.gov.si/resources/files/pdf/E-fact_01_-_Musculoskeletal_disorders_in_construction.pdf

work related cases). According to the UK Health and Safety Executive, asbestos is the biggest occupational disease risk to construction workers.

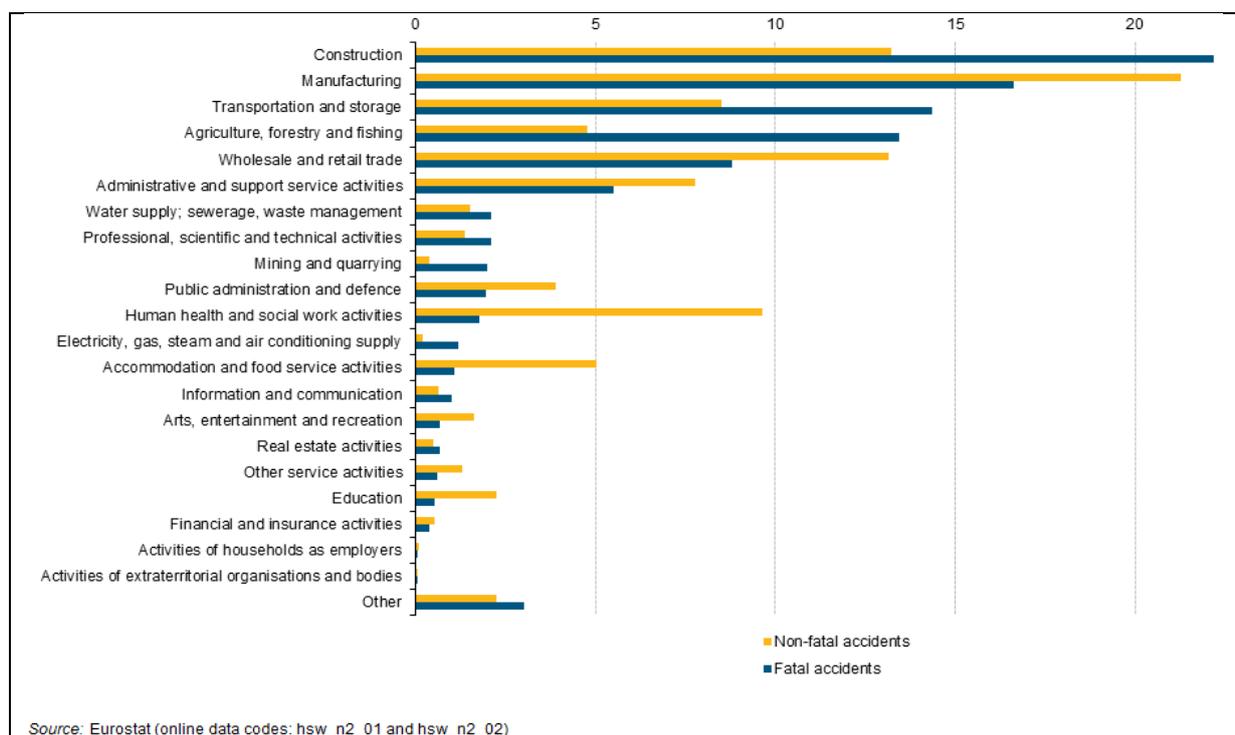


Figure A3-6: Percentage of fatal and non-fatal accidents at work by economic activity, EU-28, 2012⁹
Note: First bar refers to the Category F of NACE Rev.2 thus excluding the manufacturing/import/distribution of construction materials/products, which would be included into the second and third category depicted.

Information from Eurostat indicates that there were 645 fatal accidents at work among construction contractors in the EU in 2013 (shown in Table A3-1). Falls are the biggest cause of injuries and fatalities in the construction industry and a recent article¹⁰ has attributed around half of all fatalities in the construction industry to this type of accident. Eurostat also documents non-fatal accidents at work – in 2013 – for these two groups with a total of 333,616 non-fatal accidents recorded across the EU-28.

		F41 – Construction of Buildings	F43 – Specialised Construction Activities	Total
Number of accidents	Fatal	231	414	645
	Non-fatal	73,072	259,899	332,971
	Total	73,303	260,313	333,616
Incidence rate	Fatal	5.94	5.25	-
	Non-fatal	1,875.87	3,295.76	-

⁹ Eurostat (2015): Accidents at work statistics, available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Accidents_at_work_statistics

¹⁰ Baulinks (2015): Rund die Hälfte aller tödlichen Arbeitsunfälle sind Absturzunfälle! [Around half of all fatal accidents are accidents involving falls!], available at <http://www.baulinks.de/webplugin/2015/0718.php4>

Table A3-1: Construction contractors – Number and rate of accidents at work in the EU-28 (2013)			
	F41 – Construction of Buildings	F43 – Specialised Construction Activities	Total
<i>Note: The incidence rate of fatal and non-fatal accidents at work is the number of accidents per 100,000 persons in employment. Source: Eurostat (hsw_n2_02) (hsw_n2_01)</i>			

Data on the incidence of fatal and non-fatal accidents in the construction sector (defined as NACE Section F) are presented in the following tables for the 10 selected MS.

Table A3-2: Incidence rate of fatal accidents at work in the construction sector (NACE Section F), selected countries – 2008-2013						
Country	2008	2009	2010	2011	2012	2013
Belgium	11.35	7.11	7.36	8.83	6.4	9.48
Denmark	5.69	4.44	5.11	5.33	3.18	1.88
Germany	4.81	3.5	3.15	5.05	4.31	3.51
Ireland	5.43	5.97	4.18	4.64	6.88	9.8
Spain	9.95	8.94	7.99	10.38	8.34	8.32
France	4.99	6.98	6.26	9.23	8.07	8.8
Italy	9.27	9.23	9.22	7.74	6.27	6.35
Poland	10.13	21.49	12.95	7.51	9.16	6.33
Romania	23.41	15.84	17.3	16.4	12	15.26
United Kingdom	1.78	1.9	2.36	2.48	2	2.38
<i>Note: The incidence rate of fatal accidents at work is the number of fatal accidents per 100,000 persons in employment. Source: Eurostat (hsw_n2_02)</i>						

Table A3-3 Incidence rate of non-fatal accidents at work in the construction sector (NACE Section F), selected countries – 2008-2013						
Country	2008	2009	2010	2011	2012	2013
Belgium	6,013	3,880	3,670	5,194	4,555	4,344
Denmark	4,600	3,929	4,366	4,515	4,489	4,165
Germany	4,841	4,703	4,159	5,650	5,192	4,609
Ireland	1,323	482	2,067	2,229	1,376	913
Spain	8,961	7,575	6,829	6,754	5,507	5,389
France	7,382	5,368	5,430	7,012	6,000	5,695
Italy	3,936	3,374	3,005	2,728	2,273	2,373
Poland	811	1,496	975	664	880	557
Romania	130	77	83	123	73	109
United Kingdom	1,622	1,498	1,342	1,343	1,060	1,123
<i>Note: The incidence rate of non-fatal accidents at work is the number of serious accidents per 100,000 persons in employment. Source: Eurostat (hsw_n2_01)</i>						

The following graph shows the incidence rate for non-fatal accidents at work in the construction sector (NACE Section F) in the 10 MS over the period 2008 to 2013. It shows that in Spain and Italy in particular there is a very clear declining trend in the rate of non-fatal accidents among construction workers.

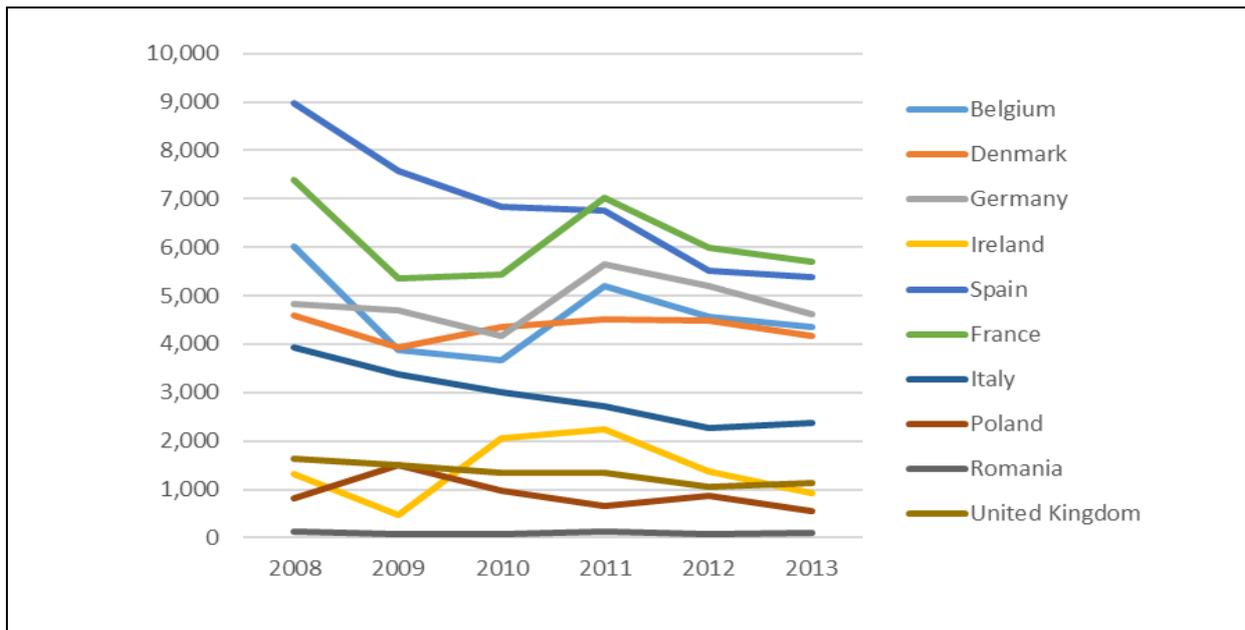


Figure A3-7: Incidence rate for non-fatal accidents at work in the construction sector (NACE Section F), selected countries – 2008-2013. Source: Eurostat

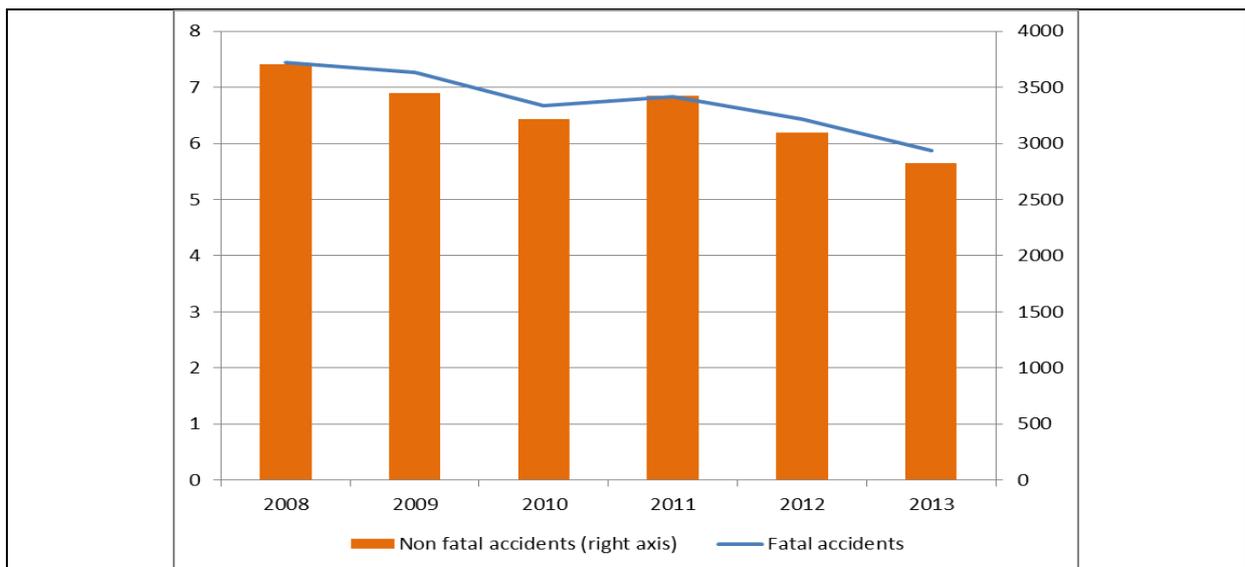


Figure A3-8: Incidence rate for fatal and non-fatal accidents in the construction sector (NACE Section F), EU-28 – 2008-2013. Source: Eurostat

Whilst there appears to be a clear downward trend in the rate of fatal and non-fatal accidents for the EU-28 as a whole, there are variations at the individual MS level year-on-year. In particular:

- The rate of non-fatal accidents was lower in 2013 than it was in 2008 in all ten MS;
- The rate of fatal accidents was also lower in 2013 than 2008 with the exception of Ireland, France and the UK;
- Most countries experienced an increase in non-fatal accident rates between 2010 and 2011.

Possible reasons for the observed trends are as follows:

- In many countries, **the benefits of OSH legislation would have been achieved long before 2008**. This may, in part, explain why the rate of fatal accidents in Ireland, the UK and France does not appear to have decreased.
- **There has been an increase in the number of migrant workers and cross-border activity within the EU**. In the UK, for example, it has been noted that an influx of migrant workers (particularly from Poland, Lithuania and other A8 ascension countries) has put pressure on the management of health and safety at a time when the UK construction industry was progressing from relative successes in tackling safety issues to dealing with the health of construction workers¹¹. In Belgium, stakeholders have noted that both foreign workers and foreign companies are posing a difficulty in terms of health and safety. One industry association from Belgium noted that although the purpose of the European legislation was to harmonize European health and safety rules, **in other countries, the health and safety rules are much less stringent and this can lead to unfair competition and ‘social dumping’**. It has been reported that foreign construction companies do not abide by the Belgian health and safety rules, for example one industry association from Belgium has reported that:
 - In Belgium, a crane driver has to follow a certain education and has to be certified/attested. While a foreign company might provide a paper that looks like a certificate, it may be in a foreign language (so cannot be understood), it is usually of a lower standard than the Belgian certificate.
 - In Belgium, construction workers must have a medical examination once a year - it is compulsory. In contrast, foreign construction workers are not obliged to do that.

On larger construction sites, there can be people of many nationalities that speak many different languages and this poses a difficulty in terms of communication of health and safety issues.

One MS authority in Belgium noted that because there are so many migrant workers in the construction sector, it would be good if the regulations in all EU countries were on an equal level.

- **Data from different countries may be subject to a greater or lesser degree of under-reporting**. For example, data from Romania appears to include a higher degree of under-reporting concerning non-fatal accidents at work¹². In the UK, it has been noted that there is an under-reporting of occupational accidents among the self-employed in the construction sector. **There may also be differences between MS in terms of the way in which a non-fatal accident is defined**.

¹¹ Bust PD, Gibb AGF and Pink S (2008): Managing construction health and safety: migrant workers and communicating safety messages, Safety Science, 46 (4), pp. 585 – 602, available at: <https://dspace.lboro.ac.uk/dspace-jspui/handle/2134/9234>

¹² Eurostat (no date): Accidents at work (ESAW, 2008 onwards) (hsw_acc_work), Metadata, available at: http://ec.europa.eu/eurostat/cache/metadata/en/hsw_acc_work_esms.htm

- In the UK several changes have taken place to the RIDDOR system for reporting injuries which may in part explain the variation seen in the statistics. In September 2011, the notification system used by employers changed to a predominantly online system. It was hoped that this would make it easier for employers to report injuries and accidents and this may partly explain where there appears to be an increase in the number of occupational accidents in the UK.
- In the UK, the Trades Union Congress (TUC) has noted that “the decline in fatalities has plateaued since 2010. The same is true of occupational illnesses. This is the period during which there has been a **reduction in the level of regulatory activity from the European Commission**, although it also **corresponds with a decline in inspection activity in the UK**”.¹³ it should be noted that this comment was made in relation to health and safety statistics more generally in the UK and not specifically in relation to health and safety in the construction sector in the UK.
- Finally, it is doubtful whether six years of data is sufficient to identify any long terms trends, without being skewed by “natural” variation between years, which would be expected even with a long-term declining trend.

Construction is also a high risk industry in terms of occupational health, this includes for instance cancer related cases. The UK Health and Safety Executive notes that construction accounts for over 40% of occupational cancer deaths and cancer registrations, based on 2005 figures (UK HSE, 2015). It estimated that past exposures in the construction sector caused over 5,000 occupational cancer cases annually and approximately 3,700 deaths. The most significant cause of these cancers was asbestos (70%) followed by silica (17%), working as a painter and diesel engine exhaust (6-7% each).

¹³ TUC (no date): EU Membership and Health and Safety, The Benefits for UK Workers – A TUC Report, available at: https://www.tuc.org.uk/sites/default/files/EU_Health_Safety_Report_0.pdf

Table A3-5: Exposure to Asbestos in the Construction sector

Asbestos is the leading cause of occupational cancer in the EU.

Most mesothelioma deaths occurring now are a legacy of past occupational exposures to asbestos, with the time between initial exposure to asbestos and the manifestation of the disease typically falling in the region of 30 to 40 years. Asbestos use was at its highest in the 1960s and 1970s, when thousands of asbestos-containing products were made. A large boom in construction took place between 1961 and 1990, a period during which housing stock (in almost all the MS) more than doubled. Millions of tonnes of asbestos were used during this period and, as a result, asbestos remains in many public and private buildings (schools, offices, hospitals, homes, etc.). Not all the MS have yet introduced registers of where asbestos is located and how much needs to be removed. In France, 3 million social housing units from a stock of 15 million have been identified as having asbestos-related problems. It is estimated that the necessary rehabilitation will cost EUR 15 billion, with the average cost per unit between €15,000 and €20,000.¹⁴

Unfortunately, EU-wide data on the prevalence of asbestos-related diseases and deaths among (current or former) construction workers are not available from the WHO. Nevertheless, a 2009 epidemiological study¹⁵ of mesothelioma in Great Britain confirms the high burden of disease among former construction workers. The study suggests that about 46% of currently occurring mesotheliomas among men born in the 1940s can be attributed to such exposures, with 17% attributed to carpentry work alone. The incidence of cancer in the construction sector in Great Britain has also been investigated for 2004-2005¹⁶. Rushton et al. (2012) calculate that in 2004, 2,773 cancer registrations were attributable to asbestos in the construction sector in Great Britain.

In Belgium, a cohort study has been undertaken linking individual records from the 1991 Belgian census to cause-specific mortality information for Flanders and Brussels over the period 2001-2009. Results from this study for asbestos-related mortality in the construction sector are presented in the table below.

Overall and asbestos-related mortality in the construction sector for manual and non-manual workers (Belgium)¹⁷

	Manual			Non manual		
	O	SMR	CI	O	SMR	CI
All deaths	5341	119	116-122	1333	100	95-106
All neoplasms	2399	125	120-130	602	105	97-114
Laryngeal cancer	61	203	155-260	8	95	41-187
Lung Cancer	995	153	144-163	200	104	90-119
Mesothelioma	48	227	168-302	16	260	149-422
Asbestosis	3	401	83-1171	2	843	12-3043

O is the observed number of deaths; SMR is the Standard Mortality Ratio; CI Confidence Interval

In a cohort study of Swedish construction workers who participated in health examinations between 1971 and 1993, there were 2,835 lung cancer cases from 189,896 workers from asbestos exposure.¹⁸

¹⁴ EESC (2015): Opinion of the European Economic and Social Committee on ‘Freeing the EU from asbestos’, (2015/C 251/03), available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014IE5005&from=EN>

¹⁵ Rake C, Gilham C, Hatch J, Darnton A, Hodgson J, Peto J. (2009). Occupational, domestic and environmental mesothelioma risks in the British population: a case control study. British Journal of Cancer; 100(7), pp 1175-83

¹⁶ Rushton L et al (2012): The burden of occupational cancer in Great Britain. Health & Safety Executive, available at <http://www.hse.gov.uk/cancer/research.htm>

¹⁷ Van den Borre L & Deboosere P (2015): Enduring health effects of asbestos use in Belgian industries: a record-linked cohort study of cause-specific mortality (2001-2009). BMJ Open, 5, e007384

¹⁸ Järholm B and Åström E (2014): The Risk of Lung Cancer after Cessation of Asbestos Exposure in Construction Workers Using Pleural Malignant Mesothelioma as a Marker of Exposure. JOEM, 56, pp1297-1301

Fortunately, all ten of the selected MS have introduced a ban on products containing asbestos (see Table A3-6). However, many millions of tonnes of asbestos remain in buildings and buried at waste sites. In the UK alone, it has been estimated that 86% of schools still contain asbestos¹⁹.

Country	1950s	1960s	1970s	1980s	1990s	2000s	Ban year
Denmark	3.07	4.80	4.42	1.62	0.09	NA	1986
Sweden	1.85	2.30	1.44	0.11	0.04	NA	1986
Austria	1.16	3.19	3.92	2.08	0.36	0.00	1990
Finland	2.16	2.26	1.89	0.78	ND	0	1992
Germany	1.84	2.60	4.44	2.43	0.10	0.00	1993
Netherlands	1.29	1.70	1.82	0.72	0.21	0.00	1994
France	1.38	2.41	2.64	1.53	0.73	0.00	1996
United Kingdom	2.62	2.90	2.27	0.87	0.18	0.00	1999
Luxembourg	4.02	5.54	5.30	3.23	1.61	0.00	2002
Spain	0.32	1.37	2.23	1.26	0.80	0.18	2002
Czech Republic	1.62	2.36	2.91	2.73	1.30	0.14	2005
Hungary	0.76	1.23	2.87	3.29	1.50	0.16	2005
Lithuania	ND	ND	ND	ND	0.54	0.06	2005
Romania	ND	ND	1.08	0.19	0.52	0.55	2007
Croatia	0.39	1.13	2.56	2.36	0.95	0.65	2013

ND: No data available; NA: not applicable because of negative use data; 0.00 when the calculated data were <0.0005.

Due to the long latency period, it is predicted that the annual number of deaths caused by mesothelioma has yet to peak, and an increase in mortality rates in the next few years is expected.²² Indeed, multiple research studies have stated that the incidence of asbestos-related cancers has not yet peaked, but predict the number of cases will reach its maximum during the 2020s and 2030s.²³

A3.4 Environment trends in the construction sector

A large number of processes involved in the lifecycle of a single construction product have the potential to impact upon the environment. The types of construction products chosen for use in a building may have effects on water and soil quality; methods used to construct a building may have significant impacts on air and climatic factors; and the area in which a project is carried out may impact upon the human environment, local ecology, etc.

¹⁹ Lees (2015): List of UK local authorities. Percentage of schools that contain asbestos, available at: <http://www.asbestosexposureschools.co.uk/pdfnewslinks/LAs%20schools%20containing%20asbestos.pdf>

²⁰ IARC Monograph: Asbestos, available at: <http://monographs.iarc.fr/ENG/Monographs/vol100/mono100C-11.pdf>

²¹ Kameda T et al (2014): Disease burden related to asbestos use in Europe. Bull World Health Organ, 92, pp 790-797

²² HSE (2009): Projection of mesothelioma mortality in Great Britain, available at: <http://www.hse.gov.uk/research/rrpdf/rr728.pdf>

²³ Asbestos.com (2016): Mesothelioma Cancer Trends, available at: <http://www.asbestos.com/mesothelioma/mesothelioma-trends/>

THE LCA OF A CONSTRUCTION PRODUCT



Figure A3-9: The Life Cycle Assessment of a Construction Product

Saint-Gobain (2016): Developing Eco-responsible Innovations, available at: <https://www.saint-gobain.com/en/group/strategy>

The choice of construction product may, for example, have a significant impact on global warming, particularly during the ‘use’ phase of a building, and materials such as aluminium, copper and low-alloyed steel are more easily recycled than bulky materials, such as concrete.²⁴ Overall, it appears that there has been a slight decrease in the global warming potential (GWP) from production of materials used for construction and maintenance of buildings in the EU27 since 2003 (in terms of % of total global GWP in reference year 1990) with a more noticeable decline since 2008, although there is some variation between products.

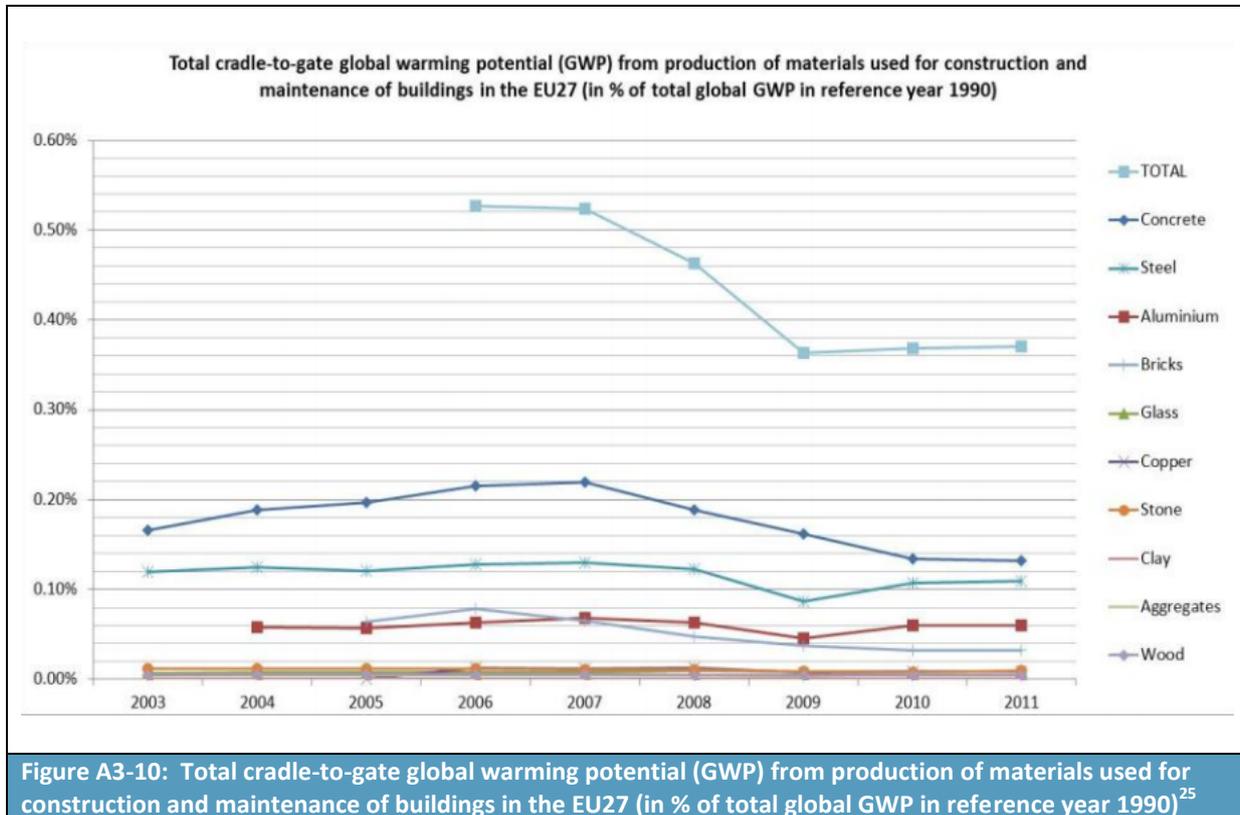


Figure A3-10: Total cradle-to-gate global warming potential (GWP) from production of materials used for construction and maintenance of buildings in the EU27 (in % of total global GWP in reference year 1990)²⁵

As for construction and demolition waste (CDW), 2012 figures made available by Eurostat indicate that out of a total of nine sectors, the construction sector produces the largest amount of waste (both hazardous and non-hazardous waste combined). Furthermore, it produces the second largest amount of hazardous waste out of all the nine sectors, with only the ‘waste collection, treatment and disposal activities; materials recovery’ sector producing more.

²⁴ Ecorys (2014): Resource Efficiency in the Building Sector. Report by Ecorys for DG Environment. Available at: <http://ec.europa.eu/environment/eussd/pdf/Resource%20efficiency%20in%20the%20building%20sector.pdf>

²⁵ Ecorys (2014): Resource Efficiency in the Building Sector. Report by Ecorys for DG Environment. Available at: <http://ec.europa.eu/environment/eussd/pdf/Resource%20efficiency%20in%20the%20building%20sector.pdf>

Table A3-7: Generation of waste (hazardous and non-hazardous) by economic activity (2012)

Sector	Tonnes of non-hazardous waste generated by EU 28	Tonnes of hazardous waste generated in EU 28	Total
Water collection, treatment and supply; sewerage; remediation activities and other waste management services	23,960,000	3,650,000	27,600,000
Wholesale of waste and scrap	28,120,000	1,210,000	29,330,000
Agriculture, forestry and fishing	39,630,000	780,000	40,410,000
Electricity, gas, steam and air conditioning supply	88,420,000	8,060,000	96,480,000
Services (except wholesale of waste and scrap)	102,280,000	11,210,000	113,490,000
Waste collection, treatment and disposal activities; materials recovery	152,590,000	16,140,000	168,720,000
Households	209,930,000	3,480,000	213,410,000
Mining and quarrying	720,260,000	13,710,000	733,980,000
Construction	805,100,000	16,060,000	821,160,000
All NACE activities plus households	2,414,370,000	99,850,000	2,514,220,000

Source: Eurostat (2012)²⁶

The following Table shows that in 2012, construction waste represented 36.5% of the total waste in EU27, although in some countries this share was much higher (e.g. 61.5% in Germany and 80.5% in France). To some extent, the striking differences observed between countries, e.g. Ireland at 3.5% and France at 80.5%, can be explained by the relative importance of construction activity in the country (see Table A3-9 below). However, this is not true in all cases. In Romania, for example, construction contributes over 9% of total GVA, but Romania also has the lowest share of construction waste of any country (at 0.5%). Other factors that might be at play include levels of (non)reporting of CDW and also differences in the way that CDW is defined in the various countries. For example, in some MS, CDW also includes excavated soils.

Table A3-8: Waste generated by economic activities (non-hazardous, excluding household waste) – 2012 (millions of tonnes)

Country	Total waste	Construction waste	Share of construction waste over the total
Belgium	58.5	24.3	41.5%
Denmark	11.5	3.4	29.6%
France	303.6	244.3	80.5%
Germany	310.0	190.6	61.5%
Ireland	10.4	0.4	3.5%
Italy	123.8	52.5	42.4%
Poland	152.3	15.2	10.0%
Romania	261.7	1.3	0.5%
Spain	94.2	26.0	27.6%
United Kingdom	207.3	99.2	47.8%

²⁶ Eurostat (2012): Generation of waste by economic activity and hazardousness, *ten00107*, available at: <http://ec.europa.eu/eurostat/web/products-datasets/-/ten00107>

Table A3-8: Waste generated by economic activities (non-hazardous, excluding household waste) – 2012 (millions of tonnes)

Country	Total waste	Construction waste	Share of construction waste over the total
Rest of EU	668.9	147.1	22.0%
EU 27	2,202.3	804.4	36.5%

Source: Eurostat (2012)²⁷

Table A3-9: Contribution of construction sector (NACE Section F) to total GVA, by country (2012)

Country	GVA for construction (€m)	GVA for all sectors (€m)	GVA for construction as % of total GVA
Belgium	19,619	341,410	5.7%
Denmark	9,889	214,977	4.6%
France	111,594	1,844,998	6.0%
Germany	114,760	2,453,850	4.7%
Ireland	2,481	147,446	1.7%
Italy	78,451	1,399,291	5.6%
Poland	22,616	346,039	6.5%
Romania	11,466	124,753	9.2%
Spain	73,203	933,173	7.8%
United Kingdom	101,686	1,677,610	6.1%
EU 28	660,862	11,661,076	5.7%

Source: Eurostat

The following table illustrates the significance of the contribution of the ten selected EU MS to overall CDW, with waste in these countries representing almost 82% of total construction waste produced in the EU-27 in 2012. CDW has been identified as a priority waste stream by the European Union.

Table A3-10: Share of country waste on the total EU 27 waste

Country	Total construction waste	Country waste/EU 27 waste	Mineral waste from construction and demolition	Mineral waste of total construction waste
Belgium	24.3	3.0%	3.68	15.2%
Denmark	3.4	0.4%	1.36	40.0%
France	244.3	30.4%	61.20	25.0%
Germany	190.6	23.7%	73.50	38.6%
Ireland	0.4	0.0%	0.04	9.6%
Italy	52.5	6.5%	33.76	64.2%
Poland	15.2	1.9%	2.58	17.0%
Romania	1.3	0.2%	0.78	59.1%
Spain	26.0	3.2%	25.25	97.0%
United Kingdom	99.2	12.3%	44.04	44.4%
Rest of EU	147.1	18.3%	52.13	35.4%
EU 27	804.4	100.0%	298.32	37.1%

Source: Eurostat

²⁷ Eurostat (2012): Generation of waste by economic activity and hazardousness, *ten00107*, available at: <http://ec.europa.eu/eurostat/web/products-datasets/-/ten00107>

In 2011, the European Commission published a study by Bio Intelligence Services²⁸ in which the existing situation of construction and demolition waste (CDW) recycling is analysed. This report shows that while nine countries are already fulfilling the Waste Framework Directive’s target, or are close to it (namely Austria, Belgium, Denmark, Estonia, Germany, Ireland, Lithuania, the Netherlands and the UK), eight countries report comparably low recycling rates. Nevertheless, the findings of this study suggest that the 70% recycling target in the WFD should be achievable for most MS and that best practice in Europe shows that recycling rates over 80% or 90% are feasible. It concludes that **for those countries which are already achieving a higher re-use, recovery and recycling rate, the WFD does not provide an incentive to achieve higher targets.** It has been suggested that, in theory, differentiated targets for these MS could be set in the WFD or in national legislation.²⁹

Caution should be exercised however when analysing data on CDW. It has been reported that no reliable data currently exist on the recovery and recycling rates of CDW in the EU. The table below presents data on the recovery rate from non-hazardous CDW from the UK over the period 2010 to 2012. The data indicates that the UK is already well above the 70% target set by the WFD.

	Generation (000 tonnes)	Recovery (000 tonnes)	Recovery rate (%)
2010	45,419	39,129	86.2%
2011	47,067	40,622	86.3%
2012	44,786	38,759	86.5%
<i>Excludes excavation waste</i>			

²⁸ Bio Intelligence Service (2011): Service contract on management of construction and demolition waste – SR1, Final Report, Task 2, for DG Environment of the European Commission, available at: http://ec.europa.eu/environment/waste/pdf/2011_CDW_Report.pdf

²⁹ Ecologic Institute, Umweltbundesamt Österreich & RIMAS (2013): Ambitious waste targets and local and regional waste management, Report for the European Union and the Committee of the Regions, available at: <http://cor.europa.eu/en/documentation/studies/Documents/2013-waste-target-and-regional-waste-management/waste-target-and-regional-waste-management.pdf>

³⁰ Defra (2015): UK Statistics on Waste, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487916/UK_Statistics_on_Waste_statistical_notice_15_12_2015_update_f2.pdf

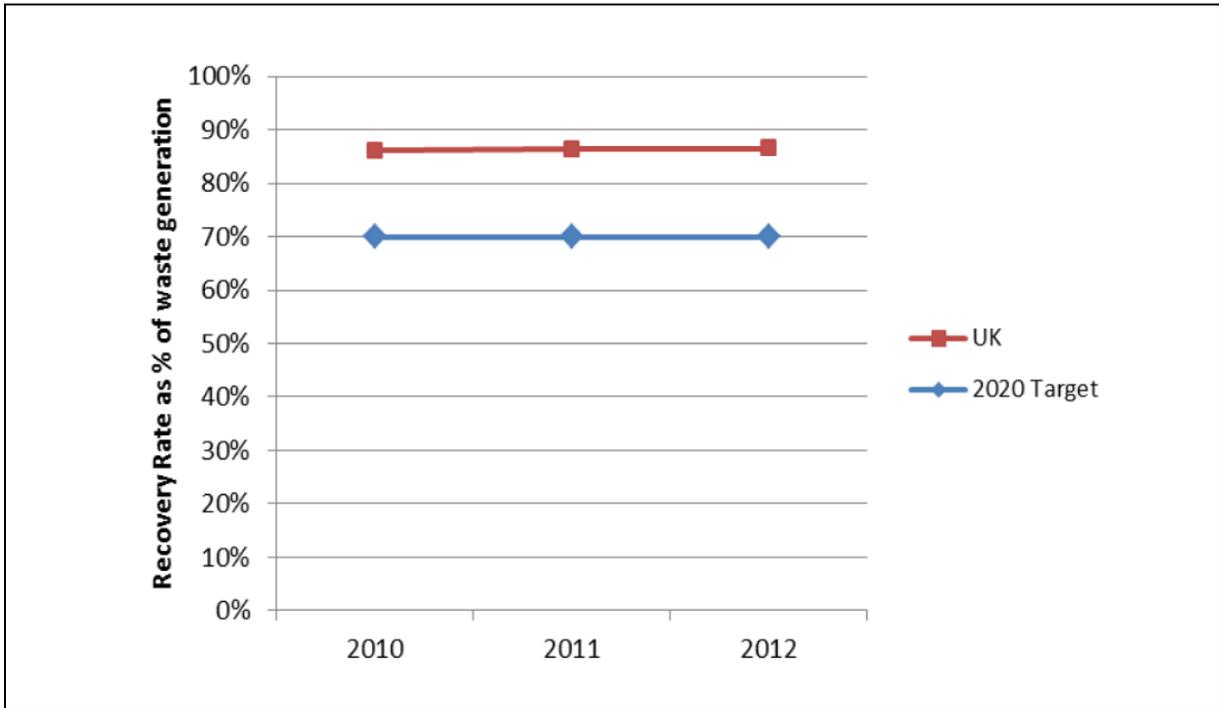


Figure A3-11: Recovery rate from non-hazardous construction and demolition waste, UK, 2010-12³¹

³¹ Defra (2015): UK Statistics on Waste, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487916/UK_Statistics_on_Waste_statistical_notice_15_12_2015_update_f2.pdf

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1 Introduction

1.1 Aims of consultation

The prime aim of this fitness check was to examine the impact of selected EU legislation, related to Environment and Health & Safety, on the construction sector.

A key source for relevant information would therefore be the construction sector itself as well as those regulating and providing services to the construction sector. A wide range of approaches was employed for the stakeholder consultation with two related aims:

- 1) to raise awareness across the construction sector of the fitness check
- 2) to encourage stakeholders to contribute to the study.

1.2 Approaches to consultation

The approaches to consult with stakeholders included:

- establishment of a ‘mirror group’ comprising industry associations, MS authorities and other key stakeholders which was kept informed about the study by Commission staff;
- direct approaches to over 20 EU industry associations representing most aspects of the construction sector;
- targeted consultation with a diverse range of stakeholders through interviews (mostly by telephone) in 10 Member States with a suggested target of eight interviews per country;
- the running of an open public consultation which cover both this study and the First Phase study covering Internal Market and Energy Efficiency; and
- a workshop with stakeholders to discuss the findings.

1.3 Timing of consultation

The timing of the various activities is summarised in Table 1-1.

Timeline	Activity
25 November 2015	Contract signature and start of study
9 December 2015	Meeting with the Mirror Group
March to June 2016	Targeted consultation with EU associations and stakeholders in 10 countries
	Open Public Consultation
30 March 2016	Meeting with the Mirror Group
26 May 2016	Workshop with stakeholders

2 Steering Group and Mirror Group

2.1 Steering Group and Commission Services

The fitness check was overseen by a Steering Group comprising Commission staff from several interested DGs – DG GROW, DG ENV, DG EMPL, SecGen, DG ENER and JRC. It is important to stress the Steering Group covered both the First Phase study looking at Internal Market and Energy Efficiency as well as the Second Phase study covering Environment and Health & Safety which is the subject of this report.

During the course of this study, there were three formal meetings of the Steering Group (8 December 2015, 30 March 2016 and 12 May 2016) at which various aspects of the project (including stakeholder consultation) were discussed. In addition, draft deliverables were circulated to the Steering Group to facilitate feedback on the various reports.

2.2 Mirror Group

Interested stakeholders were kept informed of the progress on the fitness check through a ‘mirror group’ comprising industry associations, MS authorities and other key stakeholders. The circulation list comprised 40 names of which half represented 15 industry associations (see Table 2-1) and half represented MS authorities and others.

Table 2-1: Industry Associations invited to Mirror Group meetings

Architect's Council of Europe
Association of European Building Surveyors and Construction Experts (AEEBC)
Construction Products Europe (CPE)
Deutsche Bauchemie (Germany)
European Alliance of Companies for Energy Efficiency in Buildings (EuroACE)
European Association of National Builders' Merchants Associations and Manufacturers (UFEMAT)
European Builders Confederation (EBC)
European Calcium Silicate Unit Producers Association (ECSPA)
European Federation of Building and Woodworkers (EFBWW)
European Federation of Engineering Consultancy Associations (EFCA)
European Federation of National Engineering Associations (FEANI)
European Union of Developers and House Builders (UEPC)
Fédération de l'Industrie Européenne de la Construction (FIEC)
Hauptverband der Deutschen Bauindustrie (Germany)
La Confédération Construction (Belgium)

During the course of this study, there were two formal meetings of the Mirror Group (9 December 2015 and 30 March 2016) at which various aspects of the project (including stakeholder engagement) were discussed. Although only a few non-industry stakeholders attended these meetings, the meetings were attended by the vast majority of the industry stakeholders thus ensuring that the status of the study was well known to the construction sector as represented by its EU and some national associations. Unfortunately, very limited feedback (on the Second Phase study) was received by the Consultants from the Mirror Group.

3 Targeted consultation

3.1 Introduction

In order to gather as much detailed information as possible from stakeholders, targeted telephone interviews were held with organisations from the following 10 countries: Belgium, Denmark, France, Germany, Ireland, Italy, Poland, Romania, Spain and the United Kingdom. For consistency, these are the same 10 countries that were selected as the focus for the First Phase Study.

In each of the 10 countries, the following groups of stakeholder were targeted for interviews:

- National/Regional Authorities in the MS;
- Companies (including SMEs);
- Industry associations (including business associations and workers unions/associations);
- Other stakeholders, e.g. relevant NGOs.

Initially, it was hoped that it would be possible to conduct at least eight interviews in each of the ten focal countries, covering stakeholders from all four stakeholder groups; however, it proved very difficult to engage stakeholders to the degree envisaged and, as a result, the targeted consultation was not as effective as intended.

When setting up interviews for one country, a typical description of the difficulties encountered is presented below:

80 companies and 10 associations were contacted via email, and reminders were sent out to all of these. Five different points of contact were approached for Member State authorities, two of these, for which we had direct contacts, were followed up with phone calls to arrange an interview due to lack of response to the emails. These contacts were called several times but were not available, eventually a different contact was provided – two calls were also made to this contact but there was no response at all. 10 companies were also called directly but they stated that they were unable to talk to us, indicating that lack of time and resources made it difficult for them. And a key association made it very clear that they did not wish to speak with us and were more interested in discussing impacts of other legislation, particularly the CPR¹. (comments from an RPA national interviewer)

It is unfortunate that the construction sector did not appear to be very interested in this study and that industry stakeholders (companies and their associations) did not want to participate. Of course, it is possible that this lack of interest was, at least in part, due to stakeholder fatigue - particularly amongst relevant industry associations, which have been the subject of several related consultation exercises in a relatively short period of time. However, it could also be interpreted that the lack of interest amongst stakeholders reflects a view that current legislation (relating to health and safety and to the environment) does not impose an undue burden upon the sector. In other words, there may be costs but they are not regarded as being excessive when compared to the actual or perceived benefits and so stakeholders did not feel a pressing need to speak out.

¹ The CPR was, of course, one of the key pieces of legislation examined under the First Phase study

After extensive efforts, 63 interviews were held across all 10 of the selected countries, as summarised in the table below.

Table 3-1: Number of interviews by stakeholder type and country					
Country	Industry Associations	MS Authorities	Companies	Other	Total held
Belgium	5	2	1	1	9
Denmark	2	1	4		7
France		3	2		5
Germany	1	2	3		6
Ireland		4			4
Italy	3		2		5
Poland	1	3	5		9
Romania	2	2	2		6
Spain	1	1	3		5
UK		1	1	2	4
EU Associations	3				3
Totals	18	19	23*	3	63
*5 of which were SMEs					

Despite concerted efforts by the consultants to approach and encourage SMEs to participate in the consultation exercise, only five of the 23 companies that participated were SMEs.

In order to reduce the overall length of the interviews (to encourage participation and reduce the potential for further stakeholder fatigue) and in order to ensure that good quality information was gathered, tailored interview guides² were developed for each stakeholder group. The interview guides were finalised at the beginning of March 2016 following discussions with the Commission. The interview guides were broad in scope (with a wide range of different questions) and sought to address the overarching evaluation questions and a copy of that used for MS Authorities is attached as Annex A.

Each interviewer was also briefed to tailor the questions to the specific person being interviewed and their specific knowledge/experience and perspective. This means that stakeholders were not all asked exactly the same questions in the telephone interviews but that interviews were focussed on gathering the best quality information. Because the interviews tended to focus on several key issues, rather than deal with all aspects of all of the selected legislation, it is not possible to generate a meaningful overview of the responses. Rather, and where appropriate, the key issues have been used to illustrate points in the main text.

The results of the targeted consultation are presented in the sections that follow.

² Some questions would be more relevant to specific types of stakeholder, while some questions would not be applicable. By focussing questions around the specific knowledge/expertise and perspective of each stakeholder, better quality information could be gathered from each person being interviewed.

3.2 Results of targeted consultation

3.2.1 Health and safety legislation

Benefits

The results from the targeted consultation, although limited in number, overwhelmingly indicate that the measures introduced by the four pieces of health and safety legislation have had a positive impact in terms of improving the health and safety of construction workers while at work. The majority of MS authorities have indicated that the measures introduced by the OSH directives have had a positive impact in terms of improving the health and safety of construction workers (see Table 3-2) and most industry stakeholders (i.e. industry associations and companies) have indicated that the measures introduced by the OSH directives (listed in Table 3-2) have reduced the number of workers exposed to occupational risks and the number of days lost to work-related injuries and ill-health (Table 3-3).

Table 3-2: Which of the following measures have had the greatest impact on improving the health and safety of construction workers? – Answers from MS authorities						
	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
OSH Framework Directive						
Provision of information and training for workers on health and safety	5	4	0	0	0	0
Carrying out an evaluation of the risks to the health and safety of workers	7	1	0	0	0	0
Purchasing protective equipment	3	5	0	0	0	0
Implementing protective organizational measures	5	3	0	0	0	0
Keeping a list of occupational accidents	4	3	0	0	0	0
Reporting on occupational accidents	3	4	0	0	0	0
Employing dedicated health and safety personnel (either in-house or externally)	4	2	1	0	0	0
Monitoring workers' health	4	3	1	0	0	0
Consulting with workers about issues relating to safety and health at work	5	2	1	0	0	0
Taking measures relating to first aid, firefighting and the evacuation of workers	3	3	2	0	0	0
Directive on the manual handling of loads (90/269/EEC)						
Carrying out an assessment of the characteristics of the load, physical effort required, characteristics of the working environment and requirements of the activity in order to make the manual handling of loads as safe and healthy as possible	3	4	0	0	0	0
Providing indications/information on the weight and centre of gravity of heavy loads	3	4	0	0	0	0

Table 3-2: Which of the following measures have had the greatest impact on improving the health and safety of construction workers? – Answers from MS authorities

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
Providing workers with information and training on the way to handle loads correctly, and the risks if not done correctly	3	4	0	0	0	0
Consulting with workers (or their representatives) on matters related to the manual handling of loads and worker health and safety	3	4	0	0	0	0
Purchasing equipment and implementing organizational measures to avoid the need for the manual handling of loads by workers	4	3	0	0	0	0
Purchasing equipment and implementing organizational measures to reduce the risk involved in the manual handling of loads	4	3	0	0	0	0
Organising workstations in such a way as to make the manual handling of loads as safe and healthy and possible	3	4	0	0	0	0
Directive on temporary or mobile construction sites (92/57/EEC)						
Appointing one or more coordinators for health and safety matters	5	4	0	0	0	0
Drawing up a health and safety plan	4	5	0	0	0	0
Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive	2	5	1	0	0	0
Asbestos Directive (2009/148/EC)						
Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos	4	2	0	0	0	0
Provision of information and training to workers who are, or are likely to be, exposed to dust from asbestos	4	2	0	0	0	0
Consulting with workers (or their representatives) about the risks arising from exposure to asbestos	3	3	0	0	0	0
Undertaking clinical surveillance of workers	4	2	0	0	0	0
Submitting a notification to the responsible authority	4	2	0	0	0	0
Compiling and submitting information to a national register, indicating the nature and duration of the activity and the exposure to which workers have been subjected	3	2	0	0	0	1
Purchasing and displaying warning signs	3	3	0	0	0	0

Table 3-2: Which of the following measures have had the greatest impact on improving the health and safety of construction workers? – Answers from MS authorities

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
Measuring asbestos fibres in the air at the workplace	3	3	0	0	0	0
Purchasing respiratory and/or other personal protective equipment to minimize exposure to asbestos	4	2	0	0	0	0
Purchasing other equipment to minimize exposure to asbestos	4	2	0	0	0	0
Implementing organizational measures to reduce exposure to asbestos	4	2	0	0	0	0
Storing, transporting and cleaning materials and equipment contaminated with asbestos dust	3	3	0	0	0	0
Drawing up a plan of work	4	2	0	0	0	0

As shown in Table 3-2, all of the key measures put in place by the Directives have been associated with positive (large positive or slight positive) impacts by MS authorities. Besides the measures listed in the table, MS authorities have also identified some other (non-regulatory) measures that have played a part in improving the health and safety of construction workers. These include the provision of guidance documents and the publication of case studies providing evidence of the benefits of introducing measures at workplace level.

As well as reducing the overall number of workers exposed to occupational risks and the number of days lost to work related injuries and ill-health, most industry associations and companies that participated in the targeted consultation also indicated that the OSH directives (with the exception of the Asbestos Directive) have increased productivity within the construction sector.

One MS authority has provided an elaborated view of the impacts of the OSH directives which may help to explain why MS authorities have provided a slightly less positive view on the Asbestos Directive than the three other pieces of OSH legislation:

“... Generally speaking, I can say that Europe pushes Member States to improve occupational health and safety legislation. The development of this regulation, overall, has resulted in increased direct costs due to the measures implemented on a building site. For example, there are measures that ensure equipment quality etc. which result in higher direct costs because the equipment/tools are more expensive to buy.

Similarly, European regulation concerning exposure to asbestos has resulted in higher costs because the new equipment, training etc. required means that the initial implementation is more expensive than with previous techniques. However, we believe that the health and safety measures have an overall positive benefit for a company that implements them, as in the majority of cases, progression in health and safety also results in a progression in working methods, productivity, quality, etc. The case of asbestos is a little different because we are in a situation where the level of protection required goes further than that which can be directly sustained by companies.”

It should be noted that a very small number of stakeholders were able to answer questions about the Asbestos Directive and so the results pertaining to the Asbestos Directive, in particular, should be interpreted with caution.

As shown in Table 3-3, industry associations and companies have attributed several other benefits to the OSH directives, including:

- Increased employee retention;
- Reduced insurance premiums;
- Reduced legal costs; and
- Reduced business risks.

Table 3-3: To what extent have the health and safety measures listed in the previous question contributed to the following benefits for your company / for companies in the construction sector? – Answers from companies and industry associations						
	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
OSH Framework Directive						
Reduction in the number of workers exposed to occupational risks	10	7	2	0	0	2
Fewer work days lost to work related injuries and ill-health	8	9	1	0	0	2
Improved wellbeing and job satisfaction among workers	6	10	2	1	0	2
Increased productivity	5	11	2	1	0	2
Increased employee retention	4	7	4	0	0	4
Reduced insurance premiums	4	5	4	1	1	4
Reduced legal costs	3	8	6	0	0	4
Reduced business risks	7	9	3	0	0	2
Directive on the manual handling of loads (90/269/EEC)						
Reduction in the number of workers exposed to occupational risks	3	8	1	0	0	2
Fewer work days lost to work related injuries and ill-health	3	7	2	0	0	2
Fewer workers with back injuries / back pain related to the manual handling of loads at work	3	8	1	0	0	2
Increased productivity	4	7	1	0	0	2
Reduced insurance premiums	2	4	5	0	0	2
Reduced legal costs	1	4	6	0	0	3
Reduced business risks	2	5	3	0	0	3
Directive on temporary or mobile construction sites (92/57/EEC)						
Reduction in the number of workers exposed to occupational risks	4	6	3	0	0	1
Fewer work days lost to work related injuries and ill-health	4	4	5	0	0	1
Increased productivity	4	4	3	1	0	1
Reduced insurance premiums	1	3	7	1	0	2

Table 3-3: To what extent have the health and safety measures listed in the previous question contributed to the following benefits for your company / for companies in the construction sector? – Answers from companies and industry associations

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
Reduced legal costs	1	3	7	1	0	2
Reduced business risks	1	5	5	1	0	1
Asbestos Directive (2009/148/EC)						
Reduction in the number of workers exposed to asbestos	1	3	1	0	0	1
Fewer work days lost as a result of ill-health resulting from exposure to asbestos	1	1	2	0	0	2
Increased productivity	0	1	3	0	0	2
Reduced insurance premiums	0	1	3	0	0	2
Reduced legal costs	0	1	3	0	0	2
Reduced business risks	0	2	2	0	0	2

Stakeholders that participated in the telephone interviews were asked about the extent to which the OSH directives have helped to level the playing field for companies within their country and throughout the EU, the extent to which the Directives make it easier to identify the rules in place in other MS and the extent to which the OSH Directives have helped to create an environment within the EU that is conducive to cross-border trade. The answers from MS authorities, industry associations and companies are presented in Table 3-4, Table 3-5 and Table 3-6 respectively.

Table 3-4: To what extent has the ... Directive contributed to the following benefits for businesses in your country? – Answers from MS authorities

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
OSH Framework Directive						
The Directive has helped to level the playing field for companies operating in my country	0	5	1	0	0	2
The Directive has helped to level the playing field for companies operating throughout the EU	0	5	1	0	0	2
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)	4	2	1	0	0	2
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	2	2	1	0	0	2
Directive on the manual handling of loads (90/269/EEC)						
The Directive has helped to level the playing field for companies operating in my country	1	1	1	0	0	3

Table 3-4: To what extent has the ... Directive contributed to the following benefits for businesses in your country? – Answers from MS authorities

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
The Directive has helped to level the playing field for companies operating throughout the EU	1	1	1	0	0	3
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)	2	2	1	0	0	2
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	1	1	1	0	0	3
Directive on temporary or mobile construction sites (92/57/EEC)						
The Directive has helped to level the playing field for companies operating in my country	1	1	1	0	0	4
The Directive has helped to level the playing field for companies operating throughout the EU	1	1	1	0	0	3
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)	2	2	1	0	0	2
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	1	1	1	0	0	3
Asbestos Directive (2009/148/EC)						
The Directive has helped to level the playing field for companies operating in my country	0	0	1	0	1	3
The Directive has helped to level the playing field for companies operating throughout the EU	0	0	1	0	1	3
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)	1	1	1	0	1	2
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	0	0	1	0	0	4

Table 3-5: To what extent has the ... Directive contributed to the following benefits for companies in the construction sector? – Answers from industry associations

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
OSH Framework Directive						
The Directive has helped to level the playing field within my country	3	4	2	0	0	0
The Directive has helped to level the playing field within the EU	3	3	2	1	0	0
The Directive has made it easier for companies to identify the rules in place in other Member States of the EU	1	4	3	1	0	0
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	1	3	4	0	0	0
Directive on the manual handling of loads (90/269/EEC)						
The Directive has helped to level the playing field within my country	0	1	2	0	0	0
The Directive has helped to level the playing field within the EU	0	1	2	0	0	0
The Directive has made it easier for companies to identify the rules in place in other Member States of the EU	1	1	1	0	0	0
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	0	1	1	0	0	0
Directive on temporary or mobile construction sites (92/57/EEC)						
The Directive has helped to level the playing field within my country	2	1	1	0	0	0
The Directive has helped to level the playing field within the EU	1	1	2	0	0	0
The Directive has made it easier for companies to identify the rules in place in other Member States of the EU	1	1	2	0	0	0
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	1	2	1	0	0	0
Asbestos Directive (2009/148/EC)						
The Directive has helped to level the playing field within my country	0	0	2	0	0	0
The Directive has helped to level the playing field within the EU	0	0	2	0	0	0
The Directive has made it easier for companies to identify the rules in place in other Member States of the EU	0	1	1	0	0	0
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	0	0	2	0	0	0

Table 3-6: To what extent has the ... Directive contributed to the following benefits for your company? – Answers from companies

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
OSH Framework Directive						
The Directive has helped my company to compete with other companies in my country (i.e. it has levelled the playing field within my country)	2	4	4	0	1	0
The Directive has helped my company to compete with companies operating in other EU Member States (i.e. it has levelled the playing field internationally)	2	4	3	1	1	0
The Directive has made it easier for my company to identify the rules in place in other Member States of the EU	2	4	4	0	0	1
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	1	2	4	0	0	3
Directive on the manual handling of loads (90/269/EEC)						
The Directive has helped my company to compete with other companies in my country (i.e. it has levelled the playing field within my country)	1	2	5	0	0	2
The Directive has helped my company to compete with companies operating in other EU Member States (i.e. it has levelled the playing field internationally)	1	2	4	0	1	2
The Directive has made it easier for my company to identify the rules in place in other Member States of the EU	1	2	5	0	0	2
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	0	1	5	0	0	3
Directive on temporary or mobile construction sites (92/57/EEC)						
The Directive has helped my company to compete with other companies in my country (i.e. it has levelled the playing field within my country)	1	2	3	2	0	3
The Directive has helped my company to compete with companies operating in other EU Member States (i.e. it has levelled the playing field internationally)	1	3	3	1	0	1
The Directive has made it easier for my company to identify the rules in place in other Member States of the EU	2	2	3	1	0	1
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	1	1	2	1	0	3

Table 3-6: To what extent has the ... Directive contributed to the following benefits for your company? – Answers from companies

	Large positive impact (++)	Slight positive impact (+)	No impact (0)	Slight negative impact (-)	Large negative impact (--)	Don't know / no opinion
Asbestos Directive (2009/148/EC)						
The Directive has helped my company to compete with other companies in my country (i.e. it has levelled the playing field within my country)	0	1	1	0	0	0
The Directive has helped my company to compete with companies operating in other EU Member States (i.e. it has levelled the playing field internationally)	0	1	1	0	0	0
The Directive has made it easier for my company to identify the rules in place in other Member States of the EU	0	1	1	0	0	0
The Directive has helped to create an environment within the EU which is conducive to cross-border trade	0	1	1	0	0	0

Overall, it would appear that most stakeholders believe that the OSH Directive, the Directive on Temporary or Mobile Construction Sites and the Directive on the Manual Handling of Loads have been positive in terms of competition, especially in terms of making it easier for companies to identify the rules in place in other EU MS. In terms of the Asbestos Directive, however, stakeholders' views appear to be more mixed, although it should be noted that this is based on a very small number of responses overall.

In relation to the above, stakeholders have identified the following issues:

- **There are differing levels of implementation in some countries (e.g. due to national gold-plating of the legislation), which may give rise to issues in terms of competition.** In Belgium, for example, both an industry association and a company have noted that construction companies outside Belgium often have a lower health and safety standards than those in Belgium and that this leads to unfair competition.
- **Different MS have different levels/effectiveness of enforcement.** For example, one MS authority from Germany has noted that although the OSH Framework Directive has helped to level the playing field, it has not reached its full potential in that regard due to enforcement issues.
- **There is a difference between what is required in legislation and what is actually implemented by companies in the MS.** For example, one MS authority from Germany has noted that there is a schism between legislation as adopted and as practiced.

Costs

Industry associations that participated in the interviews were asked about the extent of any costs incurred by their members as a result of the measures implemented by the EU OSH legislation. Results are presented in Table 3-7.

As shown in the table, **industry associations have generally indicated that moderate costs have been incurred as a result of the main health and safety measures.** One important point to note is that these data may not account for cumulative costs. While industry stakeholders have indicated that moderate costs have been incurred for each measure individually, the total costs (across all measures) may have been significant.

Table 3-7: To what extent have the companies your organisation represents incurred costs as a result of the following health and safety measures? – Answers from industry associations				
	Significant costs	Moderate costs	No costs	Don't know / not relevant
OSH Framework Directive				
Provision of information and training for workers on health and safety	1	6	2	1
Carrying out an evaluation of the risks to the health and safety of workers	2	5	2	1
Purchasing protective equipment	1	7	1	1
Implementing protective organizational measures	3	4	2	1
Keeping a list of occupational accidents	0	5	3	2
Reporting on occupational accidents	0	4	2	3
Employing dedicated health and safety personnel (either in-house or externally)	2	6	1	1
Monitoring workers' health	1	6	1	1
Consulting with workers about issues relating to safety and health at work	0	5	3	2
Taking measures relating to first aid, firefighting and the evacuation of workers	0	7	2	1
Directive on the manual handling of loads (90/269/EEC)				
Carrying out an assessment of the characteristics of the load, physical effort required, characteristics of the working environment and requirements of the activity in order to make the manual handling of loads as safe and healthy as possible	1	2	0	2
Providing indications/information on the weight and centre of gravity of heavy loads	0	2	1	1
Providing workers with information and training on the way to handle loads correctly, and the risks if not done correctly	0	4	0	0
Consulting with workers (or their representatives) on matters related to the manual handling of loads and worker health and safety	0	2	2	0
Purchasing equipment and implementing organizational measures to avoid the need for the manual handling of loads by workers	3	1	0	0
Purchasing equipment and implementing organizational measures to reduce the risk involved in the manual handling of loads	3	1	0	0
Organising workstations in such a way as to make the manual handling of loads as safe and healthy and possible	0	3	0	1
Directive on temporary or mobile construction sites (92/57/EEC)				

Appointing one or more coordinators for health and safety matters	0	5	0	0
Drawing up a health and safety plan	2	2	1	0
Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive	1	3	1	1
Asbestos Directive (2009/148/EC)				
Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos	0	2	1	1
Provision of information and training to workers who are, or are likely to be, exposed to dust from asbestos	1	2	1	0
Consulting with workers (or their representatives) about the risks arising from exposure to asbestos	0	2	2	0
Undertaking clinical surveillance of workers	1	3	0	0
Submitting a notification to the responsible authority	0	2	2	0
Compiling and submitting information to a national register, indicating the nature and duration of the activity and the exposure to which workers have been subjected	0	3	0	1
Purchasing and displaying warning signs	0	4	0	0
Measuring asbestos fibres in the air at the workplace	1	2	0	1
Purchasing respiratory and/or other personal protective equipment to minimize exposure to asbestos	2	2	0	0
Purchasing other equipment to minimize exposure to asbestos	1	3	0	0
Implementing organizational measures to reduce exposure to asbestos	1	2	1	0
Storing, transporting and cleaning materials and equipment contaminated with asbestos dust	1	3	0	0
Drawing up a plan of work	0	3	1	0

Industry associations were also asked whether, on balance, the benefits of the four OSH directives outweigh the costs (or vice versa). For the OSH Framework Directive, the Directive on the Manual Handling of Loads and the Directive on Temporary or Mobile Construction Sites there was an overall view that the benefits of the legislation outweigh the costs (although for most stakeholders this reflected their views of the benefits to society overall, and not just to the construction sector). Only two respondents could provide an answer in relation to the Asbestos Directive – and their views were conflicting, with one industry association indicating that the benefits outweigh the costs, and the other indicating that the costs outweigh the benefits. Results are presented in Table 3-8.

Table 3-8: On balance, would you say that the benefits of ... Directive outweigh the costs (or vice versa)? – Response from industry associations

	OSH Framework Directive	Directive on the manual handling of loads	Directive on temporary or mobile construction sites	Asbestos Directive
Costs outweigh the benefits	0	1	1	1
Benefits outweigh the costs	7	3	6	1

When companies were asked whether the benefits of the directives outweigh the costs (see Table 3-9) their views were more mixed; although it is not possible to come to any firm conclusions based on the small number of responses received.

Table 3-9: On balance, would you say that, for your company, the benefits of ... Directive outweigh the costs (or vice versa)? – Response from companies

	OSH Framework Directive	Directive on the manual handling of loads	Directive on temporary or mobile construction sites	Asbestos Directive
Costs outweigh the benefits	3	1	0	1
Benefits outweigh the costs	3	1	2	0

MS authorities were asked whether, in the absence of the four OSH directives, similar obligations would have been implemented in their country and, if so, whether the associated costs for companies would have been higher, lower or the same. The results are presented in Figure 3-1.

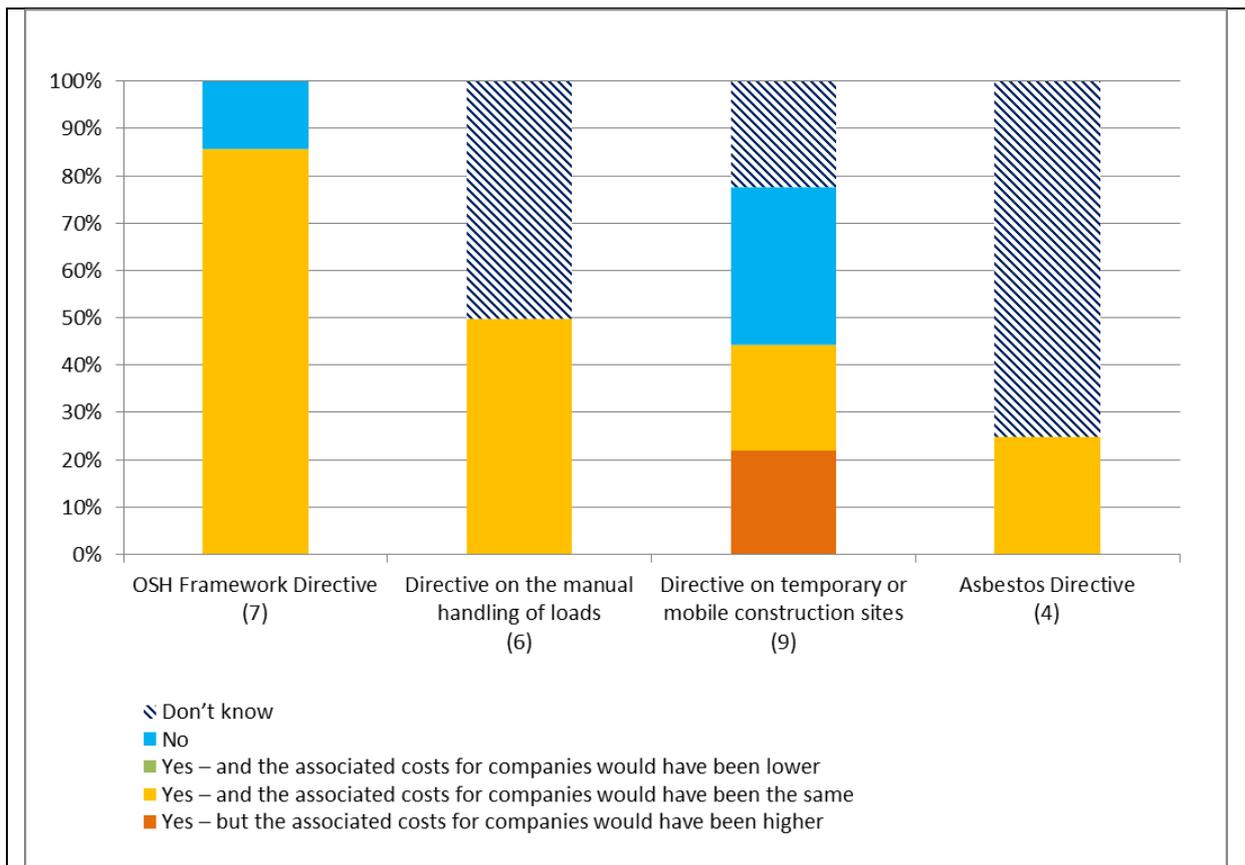


Figure 3-1: In the absence of the ... Directive, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? – Answers from MS Authorities. Number of respondents shown in brackets

Most MS authorities that responded to this question indicated that, in the absence of the OSH Framework Directive, similar obligations would probably have been put in place by MS authorities and that the associated costs for companies would have been the same. However, this view was not universal, with one MS authority noting that Denmark has tried to exempt small companies from the written communication requirement for workplace assessment, but has not been granted permission to waive the requirement. The stakeholder noted that the requirement is perceived as administratively burdensome by companies.

In terms of the Directive on Temporary or Mobile Construction Sites, MS authorities had quite mixed views. Of the nine authorities that responded to this question, four indicated that their country would have implemented similar obligations in the absence of the Directive (authorities from Romania, Germany, Ireland and Belgium), while three indicated that they would not (authorities from Denmark, Belgium and France). Of the four MS authorities that indicated that they would have implemented similar obligations, two indicated that the associated costs for companies would have been higher, while two indicated that the associated costs would have been the same.

Stakeholders that participated in the consultation were also asked whether they were aware of any obsolete measures in the health and safety legislation pertaining to the construction sector (Figure 3-2). In response, one industry association stated that it was aware of obsolete measures pertaining to chemicals, but did not provide any further clarification on this point.

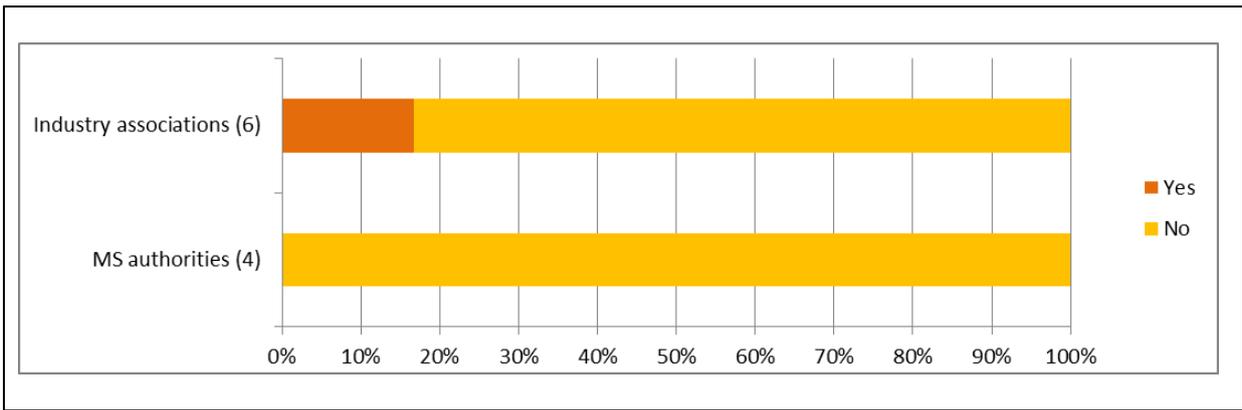


Figure 3-2: Are you aware of any obsolete measures in the health and safety legislation pertaining to the construction sector (at EU or Member State level)? *Number of respondents shown in brackets*

Two MS authorities that participated in the interviews were aware of gaps in the health and safety legislation pertaining to the construction sector (Figure 3-3). One MS authority noted that the Polish legislation lacks sufficient duties and responsibilities for the investor in terms of occupational safety both at the investments design stage, as well as its implementation. The stakeholder noted that this results in the investor not being interested in the safe execution of the works. The authority also noted that in the Polish legislation there are no regulations on occupational health and safety requirements in handling tower cranes, including the crane operator working time and that the 1954 Regulation on occupational health and safety in crane operating was repealed with effect from 04.04.2013.

Another MS authority noted that sometimes it is not clear what the legislation applies to, particularly those works that do not require a health and safety plan, e.g. emergency works (demolition of a building that is at risk of falling down).

A third MS authority said that the problem is not really gaps in the legislation, but the level of compliance with the existing regulation.

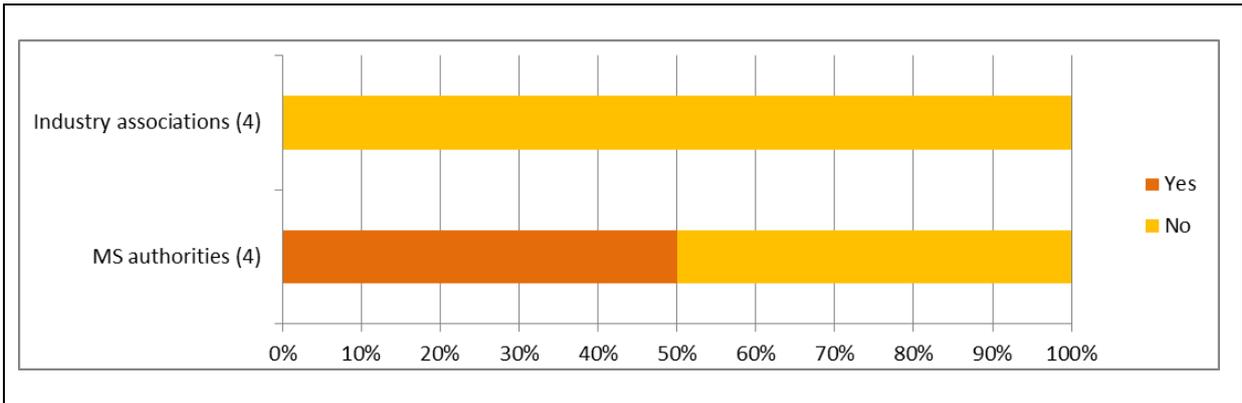


Figure 3-3: Are you aware of any gaps in the health and safety legislation pertaining to the construction sector (at EU or Member State level)? *Number of respondents shown in brackets*

3.2.2 Environment legislation

Waste Framework Directive - Benefits

Stakeholders that participated in the telephone interviews were asked about the extent to which the Waste Framework Directive has contributed to benefits for companies operating in the construction sector.

As shown in Figure 3-4 and Figure 3-5, more than 60% of companies and industry associations indicated that the Waste Framework Directive has had a positive impact in terms of reducing environmental impacts. More than 50% of industry associations and more than 40% of companies have indicated that it has improved the corporate image of their company/the sector, while more than 60% of companies and 50% of industry associations indicated that it has increased the reuse of materials. Interestingly, companies were generally more positive than industry associations. This could be because the companies that responded to the survey were, in general, larger enterprises, while the industry associations presumably represent smaller enterprises too, or it could be that industry associations are not fully aware of the benefits that their members have observed in practice.

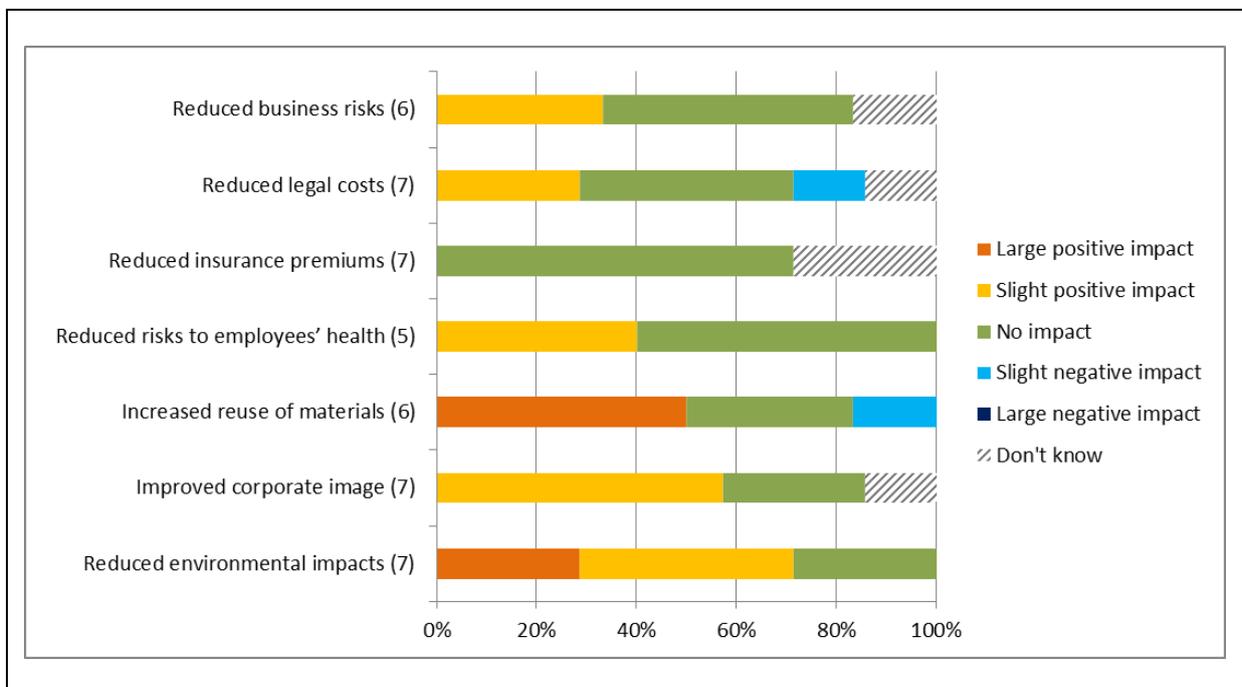


Figure 3-4: To what extent has legislation on waste contributed to the following benefits for the companies your organisation represents? – Answers from industry associations. Number of respondents shown in brackets

Other benefits identified by companies include reduced insurance premiums, reduced business risks and reduced legal costs (Figure 3-5).

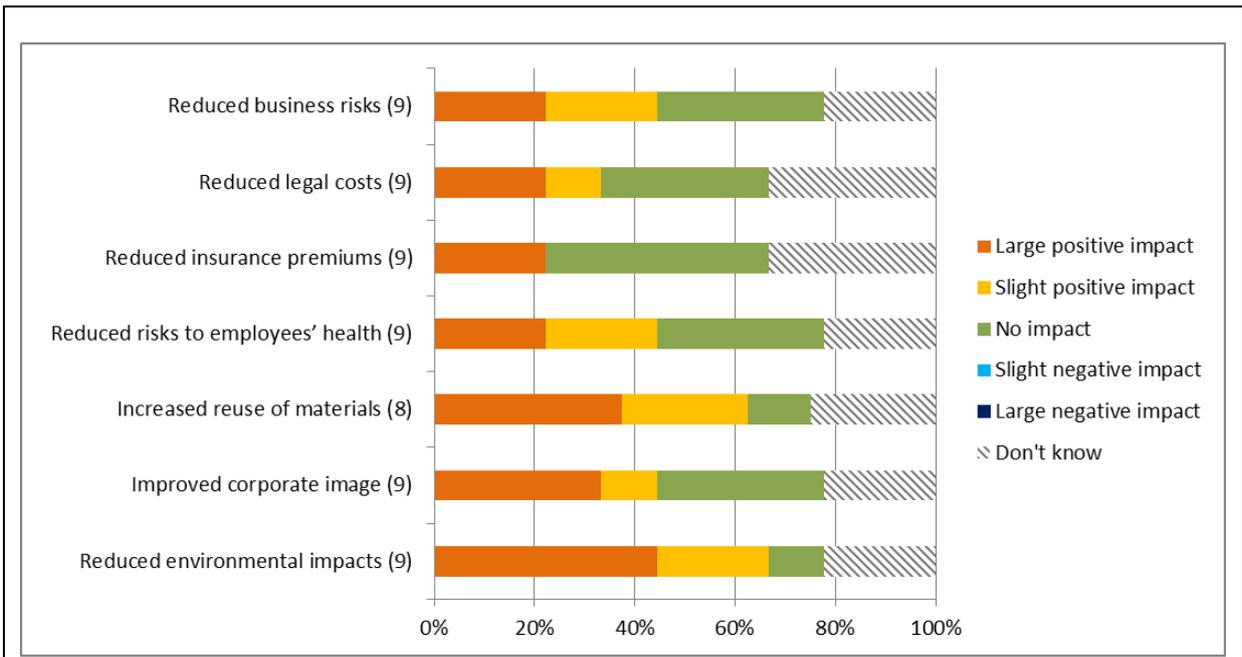


Figure 3-5: To what extent has the Waste Framework Directive contributed to the following benefits for your company? – Answers from companies. Number of respondents shown in brackets

Companies and industry associations that participated in the interviews were also asked whether the Waste Framework Directive had made it easier for companies to identify the rules in place in other MS of the EU (Figure 3-6). While five out of the seven industry associations that responded to this question indicated that the Directive had produced a slightly positive impact in this regard, companies were, in general, far less certain. Although one company indicated a large positive impact, seven said “no impact” or “don’t know”. One industry association noted that although the Directive has improved harmonisation at EY level, some MS authorities have defined stricter requirements. Another industry association noted that although the Directive has had a slightly positive impact in terms of making it easier to identify the rules in place in another MS, it depends on national implementation and that a directive is less clear than a regulation. A company has suggested that it would be helpful to have a repository of implementing legislation in other MS (available in English) as it is difficult to see how other MS are applying the Directive.

Interestingly, one company indicated that the implementation of the Directive had created jobs within their organisation (Figure 3-6), however, no further information was provided on the specific number of jobs created.

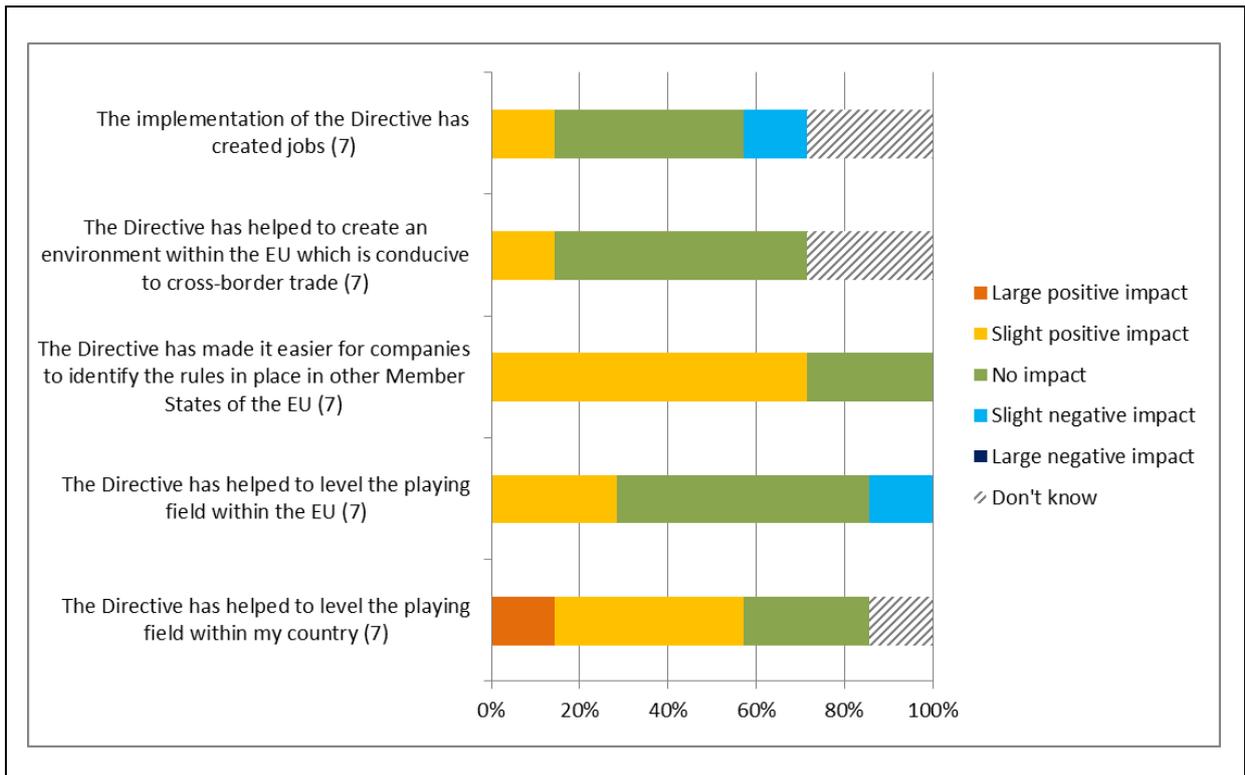


Figure 3-6: To what extent has the Waste Framework Directive contributed to the following benefits for the construction sector? – Answers from industry associations. Number of respondents shown in brackets

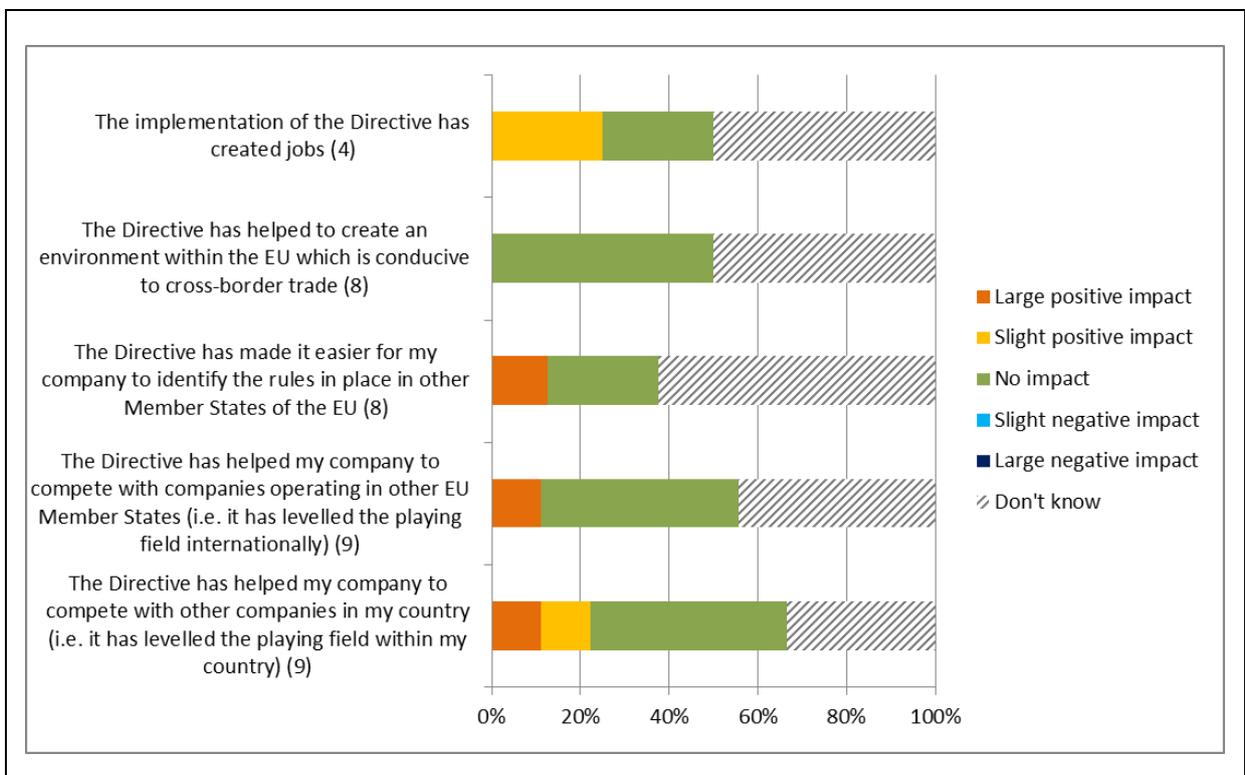


Figure 3-7: To what extent has the Waste Framework Directive contributed to the following benefits for your company? – Answers from companies. Number of respondents shown in brackets

Waste Framework Directive – Costs

Industry stakeholders that participated in the telephone interviews were asked whether, on balance, the benefits of the Waste Framework Directive outweigh the costs (Table 3-10). Only a very small number of responses were received (two from industry associations and five from companies), however, it would appear that companies and industry associations had conflicting views, with companies generally stating that the benefits outweigh the costs, while industry associations said the costs outweigh the benefits. One company has clarified that the impact of the entry into force of the Directive has been marginal for their company.

Table 3-10: Balance of costs and benefits associated with the Waste Framework Directive		
	Answers from Industry Associations: On balance, would you say that the benefits of the Waste Framework Directive outweigh the costs (or vice versa)?	Answers from Companies: On balance, would you say that, for your company, the benefits of the Waste Framework Directive outweigh the costs (or vice versa)?
Costs outweigh the benefits	2	1
Benefits outweigh the costs	0	4

Environmental Impact Assessment Directive – Benefits

Stakeholders that participated in the telephone interviews were asked about the extent to which the EIA Directive has contributed to benefits for the construction industry in the EU (Figure 3-8, Figure 3-9 and Figure 3-10).

While MS authorities provided a fairly positive view of the impacts of the Directive (Figure 3-10), industry associations provided a more mixed view (Figure 3-8), and were companies were largely neutral (Figure 3-9). However, it should be noted that the feedback from MS authorities (Figure 3-10) is based on only two responses.

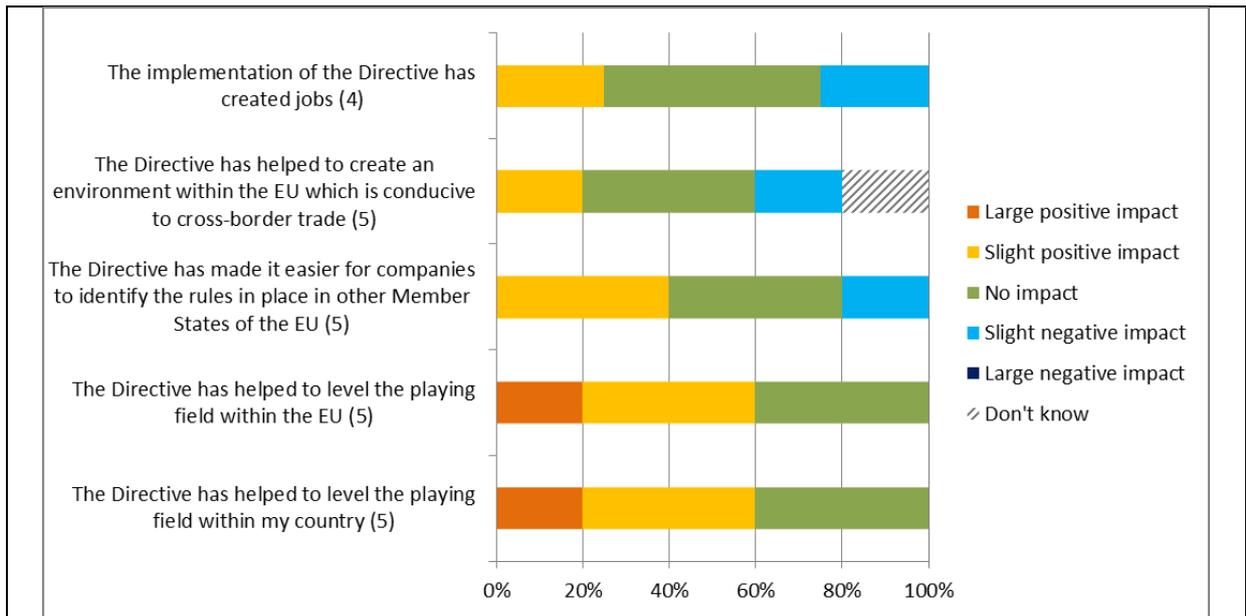


Figure 3-8: To what extent has the Environmental Impact Assessment Directive contributed to the following benefits for the construction sector? – Responses from industry associations. Number of respondents shown in brackets

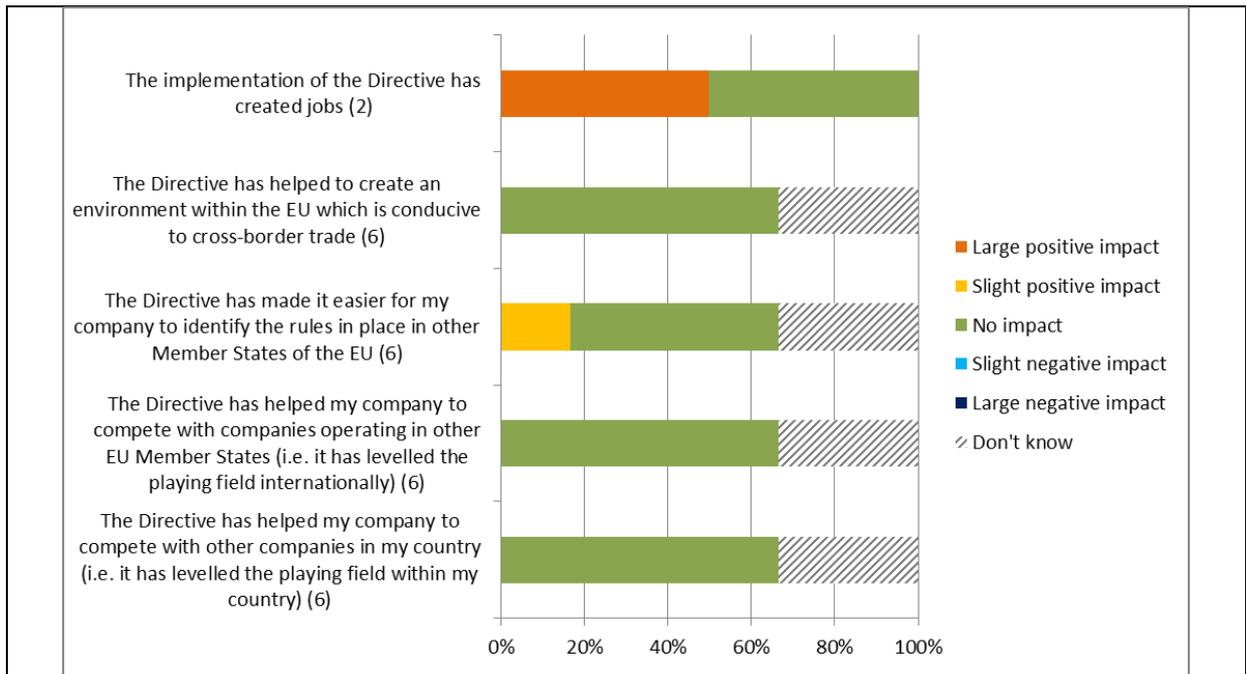


Figure 3-9: To what extent has the Environmental Impact Assessment Directive contributed to the following benefits for your company? – Answers from companies. Number of respondents shown in brackets

Interestingly, one company has noted a large positive impact in terms of the effect of the Directive on the creation of jobs (Figure 3-9). This stakeholder clarified that the Directive has helped to create jobs in consultancy services and laboratories.

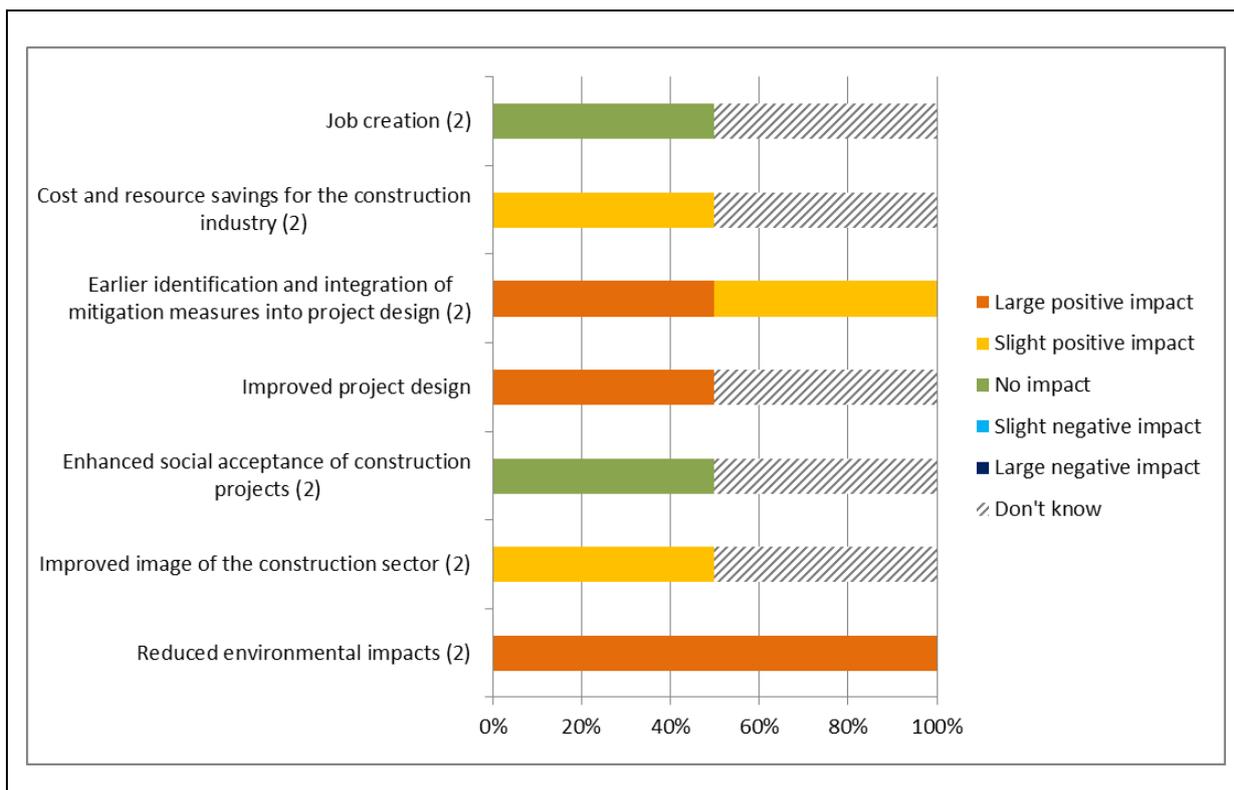


Figure 3-10: To what extent have the following benefits been realised as a result of the EIA Directive? – Answers from MS authorities. Number of respondents shown in brackets

Environmental Impact Assessment Directive - Costs

When asked whether, in the absence of the EIA Directive, similar obligations would have been implemented in the MS, one MS authority noted that the UK would have introduced similar requirements in the absence of the Directive and that associated cost for companies would have been lower. The MS authority noted that the alternatives would have assessed the environmental impacts; however they may have been weaker in terms of alternatives and cumulative costs. Other MS authorities did not respond to this question.

	Answers from Industry Associations: On balance, would you say that the benefits of the EIA Directive outweigh the costs (or vice versa)?	Answers from Companies: On balance, would you say that, for your company, the benefits of the EIA Directive outweigh the costs (or vice versa)?
Costs outweigh the benefits	0	1
Benefits outweigh the costs	1	2

Concluding questions

Industry associations and MS authorities were overwhelmingly positive about the extent to which the EU legislation in the areas of environment and health and safety has contributed to achieving a competitive and sustainable construction sector (Figure 3-11).

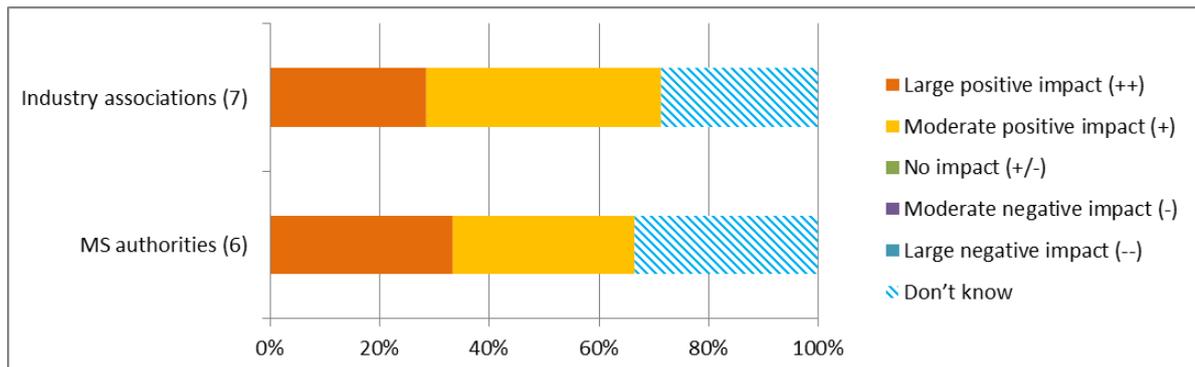


Figure 3-11: To what extent has EU legislation in the areas of environment and health and safety contributed to achieving a competitive and sustainable construction sector? Number of respondents shown in brackets

However, when asked whether the identified EU legislation provides added value to enterprises, in particular SMEs, compared to national legislation alone, MS authorities and industry associations provided somewhat contradictory views (Figure 3-12). Most MS authorities (60%, or three out of the five that responded) indicated that the identified EU legislation does provide added value to enterprises compared to national legislation, while half the industry associations indicated that it does not.

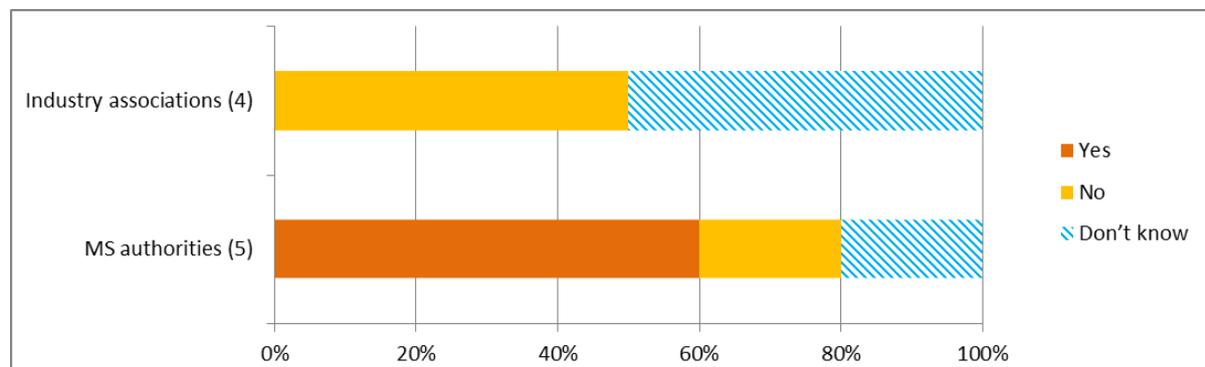


Figure 3-12: Does the identified EU legislation provide added value to enterprises, in particular SMEs, compared to national legislation alone? Number of respondents shown in brackets

Industry associations and MS authorities both tended to indicate that the legislative requirements pertaining to the construction sector are causing problems or challenges for SMEs, but blamed national legislation and EU legislation in roughly equal measure (Figure 3-13).

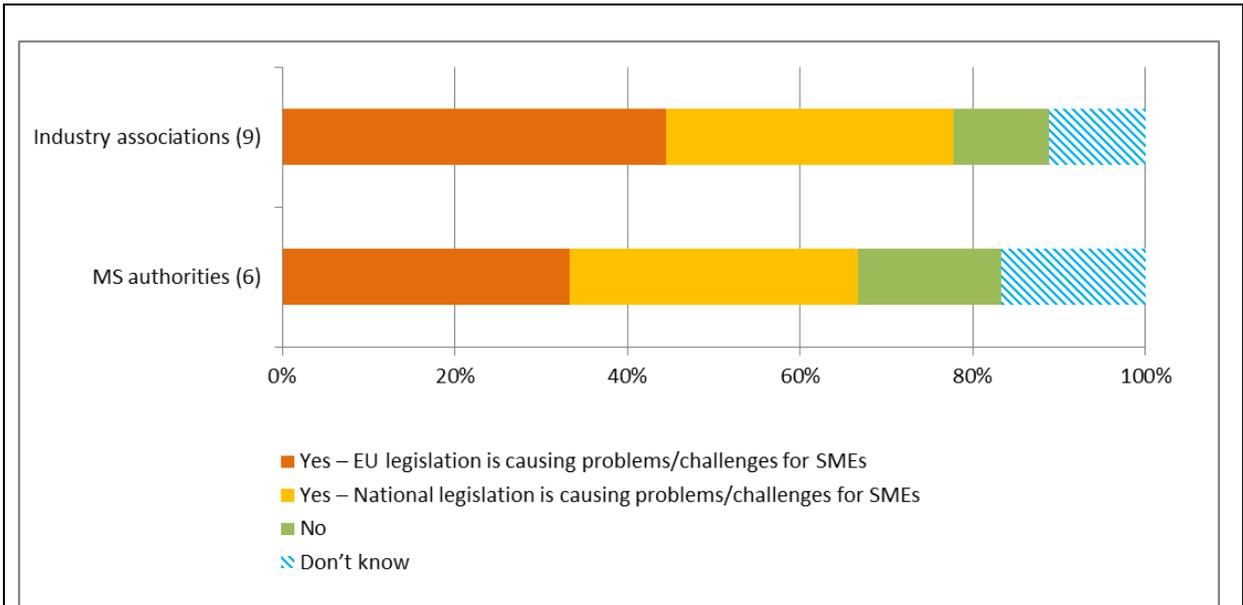


Figure 3-13: Are SMEs faced with any specific problems or challenges in complying with the legislative requirements pertaining to the construction sector? Number of respondents shown in brackets

The majority of MS authorities agreed that the different pieces of EU legislation complement each other and work together to provide a clear and predictable regulatory framework (Figure 3-14).

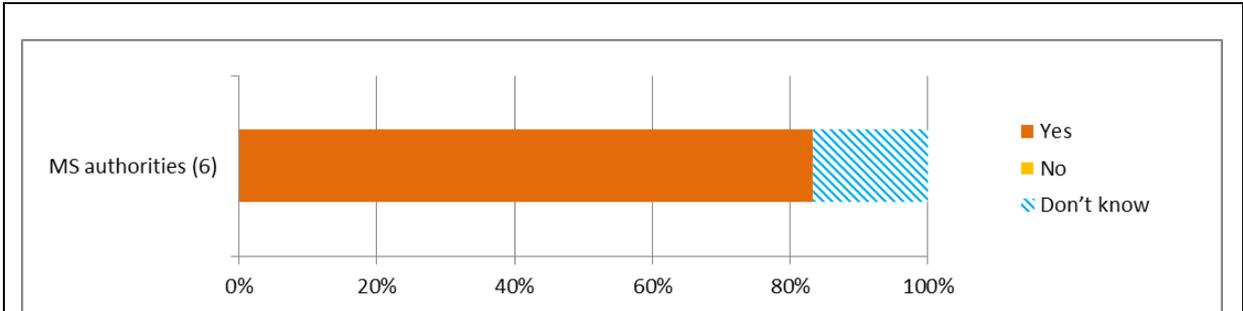
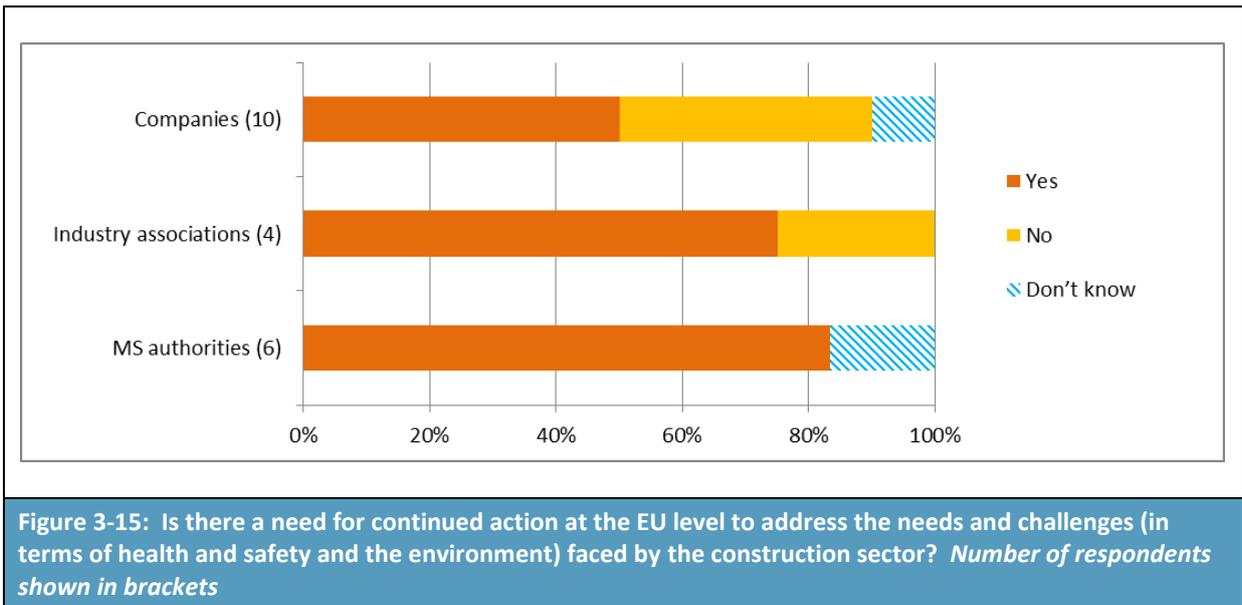


Figure 3-14: Would you agree that the different pieces of EU legislation complement each other and work together to provide a clear and predictable regulatory framework (i.e. legislation is coherent)? Number of respondents shown in brackets

Stakeholders that participated in the telephone interviews were asked whether there is a need for continued action at the EU level to address the needs and challenges (in terms of health and safety and the environment) faced by the construction sector (Figure 3-15). More than 80% of the MS authorities that responded said that “yes” there is a need for continued action at the EU level, and so did >70% of industry associations. However, the views of companies were more mixed, with only 50% saying there is a need for continued action at the EU level.



Several stakeholders noted that there is a need for further action at EU level to eliminate some of the problems and difficulties faced by SMEs. For example, in Germany, one MS authority noted that one-man enterprises should be better integrated into the existing set of rules/laws. One industry association has suggested that it would be good if there was more proportionality in the requirements for safety coordination on temporary or mobile construction sites. The stakeholder explained that, for small works, a special safety coordinator is not necessary and that for small works the requirements could therefore be lessened.

Stakeholders also mentioned that the application of the legislation is different between MS and that enforcement of the legislation is insufficient in some cases. For example, one MS authority has noted that because there are so many foreign workers in the building sector, it would be good if the regulations of all EU countries were on an equal level.

A MS authority has also noted that ongoing reviews of the Directives should be carried out to ensure that they are fit for purpose and reflect emerging technologies and processes.

3.3 Validation workshop

In order to obtain feedback from stakeholders on some of the preliminary findings of the fitness check, a validation workshop was held in Brussels on the morning of 26 May 2016. The validation workshop covered both the First Phase study looking at Internal Market and Energy Efficiency as well as the Second Phase study covering Environment and Health & Safety which is the subject of this report.

In addition to representatives from the Commission, the Steering Group and the study teams, 20 representatives from industry associations, 8 MS authorities and 1 other stakeholder attended the workshop. In the event, the main focus of the workshop was on the findings of the first study so that limited time was devoted to the second study. Nevertheless, the Consultants provided a brief overview of the preliminary findings (which was also distributed to attendees) and there was some limited discussion on the scale of the estimated costs associated with the health and safety legislation. As a consequence the costs estimates were reviewed and revised.

4 Open Public Consultation

4.1 Overview

The Commission held an open public consultation (OPC) to gather experiences, views and opinions of interested stakeholders and the public on the impact of current EU legislation for the construction sector from 29th March 2016 to 20th June 2016 which was accessed via the Commission's website³. The consultation could also be accessed through the Commission's *Your Voice in Europe* portal⁴.

There were three similar questionnaires for three different groups of stakeholders - Public Authorities, Citizens and Professionals and a copy of that used for Professionals is attached as Annex B.

Following a series of questions in Section I to characterise the respondent, this OPC comprised two further sections: Section II concerning the internal market and energy efficiency (as related to the First Phase study) and Section III concerning health and safety (Section III.1) and environment (Section III.2) and overview questions (Section III.3).

An overview of the results is presented in the following sub-sections.

4.2 Number and type of responses received

4.2.1 Responses received

In total, 54 responses were received to Section III. There are three different versions of the questionnaire and the number of respondents who completed each version is shown in Figure 2.1.

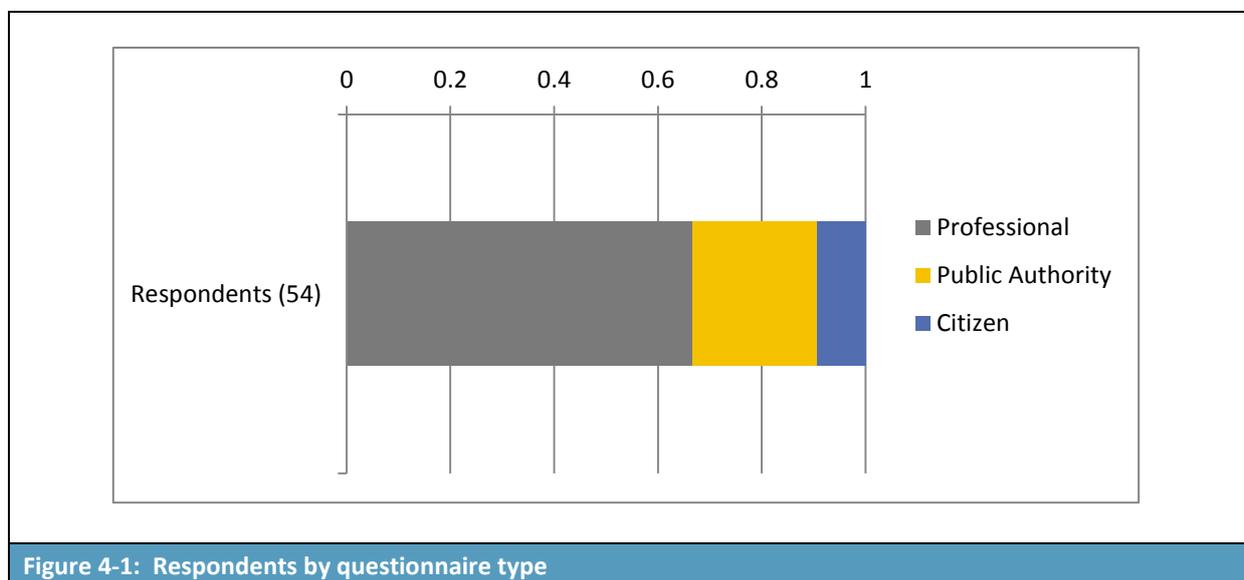


Figure 4-1: Respondents by questionnaire type

³ https://ec.europa.eu/growth/sectors/construction/fitness-check_en

⁴ http://ec.europa.eu/yourvoice/index_en.htm

4.2.2 Responses by country

Individual respondents were asked to indicate the principal country of their organisation or, for citizens, their principal country of residence. The breakdown of respondents by country is shown in Table 4-1. The respondents covered a wide range of member states. Many of the responses from Belgium are from European or international organisations based there.

Table 4-1: Responses by principal country of organisation or residence		
Country	Number	% Total
Austria	1	1.9
Belgium	12	22.2
Croatia	1	1.9
Czech Republic	1	1.9
Denmark	2	3.7
Estonia	1	1.9
Finland	4	7.4
France	3	5.6
Germany	8	14.8
Hungary	1	1.9
Ireland	1	1.9
Italy	2	3.7
Luxembourg	2	3.7
Malta	1	1.9
Netherlands	1	1.9
Slovenia	1	1.9
Spain	4	7.4
Sweden	2	3.7
United Kingdom	3	5.6
Other country	2	3.7
Totals	54	100

4.2.3 Responses by category

For responses from professional organisations or public authorities, respondents were asked to indicate the category best describing their organisation. All citizens were automatically allocated the category of “Citizen”. The breakdown of respondents by category is shown in Table 4-2.

Table 4-2: Responses by category of respondent		
Country	Number	% Total
a Employee	3	5.6
c Private company	4	7.4
e International organisation	1	1.9
f Workers organisation/ association/ trade union	8	14.8
g Non-governmental organisation	3	5.6
h Industry/business association	14	25.9
i Other interest group organisation/association	2	3.7

Table 4-2: Responses by category of respondent		
Country	Number	% Total
j Consultancy	1	1.9
x National public authority	11	20.4
y Regional/local public authority	2	3.7
z Citizens	5	9.3
Totals	54	100.0

4.2.4 Responses to the three parts of Section III

The number of respondents answering the different parts of Section III is given in Table 4-3.

Table 4-3: Responses to each part of section III	
Part	Number
1 Questions on EU legislation related to occupational health and safety in the construction sector	32
2 Questions on EU legislation related to environment in the construction sector	28
3 Final questions on environment and health and safety in construction	35

4.3 Data preparation

4.3.1 Merging data

The three data sets (Public Authorities, Citizens and Professionals) were merged together according to the mapping rules in Table 4-4 below. If not stated, the question titles for the Citizens and Public Authorities are the same as in the questionnaire for Professionals (as reproduced in the Annex). In all cases, any associated free text comments relating to a question were merged too.

Professional respondents were asked to indicate if they represent a private company or not for several questions. They completed different questions for private or non-private companies, but the questions were the same. These responses were also merged according to the mapping rules in Table 4-4 below. A couple of respondents completed both questions; in these cases if they were a private company, the private data was used, and vice versa. In nearly all cases, the data discarded was “No opinion”.

Throughout the analysis, the primary question number referred to is that from the Professionals questionnaire. In the charts, the question numbers from all three questionnaires are provided.

Table 4-4: Mapping rules for three datasets		
Citizens	Professionals	Public Authority
	1 Type of company	1 Type of authority
	Other	Other
	2 Size	
	3 Primarily with construction	2 Primarily with construction
	4 Principal field of activity	
	5 Segment	

Table 4-4: Mapping rules for three datasets

Citizens	Professionals	Public Authority
1	6 Country	3
Non EU	Non EU country	Non EU
2	7 Name	4
	8 Transparency register	5
	Transparency register ID	Transparency register ID
3	9 Publication	6
Explanation	Explanation	Explanation
36	44 Responding to health and safety questions	39
	45 Private company or not	
37	46 Health and safety costs – private & 48 Health and safety costs – non-private	40
38	47 Health and safety benefits – private & 49 Health and safety benefits – non-private	41
39	50 Contribution of Occupational Safety and Health Framework Directive (89/391/EEC)	42
40	51 Manual handling costs – private & 53 Manual handling costs – non-private	43
41	52 Manual handling benefits – private & 54 Manual handling benefits – non-private	44
42	55 Contribution of Directive 90/269/EEC	45
43	56 Health & safety costs – private & 58 Health & safety costs – non-private	46
44	57 Health & safety costs benefits – private & 59 Health & safety costs benefits – non-private	47
45	60 Contribution of Directive 92/57/EEC	48
46	61 Asbestos costs – private & 63 Asbestos costs – non-private	49
47	62 Asbestos costs benefits – private & 64 Asbestos costs benefits – non-private	50
48	65 Contribution of Directive (2009/148/EC)	51
	66 Complying with health and safety requirements	
49	67 Responding to environmental and construction questions	52
	68 Private company or not	
50	69 Waste management costs	53
	70 Complying with waste management requirements	
51	71 Waste management benefits	54
52	72 Effect of Environmental Impact Assessments	55
53	73 Criteria & thresholds for Environmental Impact Assessments	56
54	74 Impact of Environmental Impact Assessments	57
55	75 Any other benefits from Environmental Impact Assessments	58
56	76 Health & safety statements	59
57	77 Response to health & safety requirements	60
Explanation	Explanation of response to health & safety requirements	Explanation
58	78 View on environment requirements	61
59	79 Response to environment requirements	62
Explanation	Explanation of response to environment requirements	Explanation
Any other	Any other comments	Any other

4.3.2 Willingness to be published

The respondents' willingness to have their responses published is summarised in Table 4-5.

Respondent type	My contribution can be directly published with my personal information	My contribution can be directly published provided that I remain anonymous	My contribution cannot be directly published but may be included within statistical data	Total
Professional organisation	24	8	4	36
Public authority	9	2	2	13
Citizen	1	4		5
Totals	34	14	6	54

Of the six respondents who did not wish to see their responses published, two provided a reason:

- “In representing a non-profit association which encompasses all trade unions and other technical and institutional representative structures in the construction sector, there may be a difference between my opinion and the one directly expressed by another organisation representing a member, particularly on a European scale.”
- “Competitive datas”

All comments quoted in this document are from respondents who have given their permission to be published, either with personal information, which is not given, or anonymously.

5 Analysis of Part III.1 Questions on EU legislation related to occupational health and safety in the construction sector

5.1 Introduction

Part III.1 of the questionnaire comprises questions addressing the five themes:

- III.1.a Occupational Safety and Health Framework Directive (Qns 45-50)
- III.1.b Manual handling of loads (Qns 51-55)
- III.1.c Temporary or mobile construction sites (Qns 56-60)
- III.1.d Asbestos Directive (Qns 61-65)
- III.1 Complying with health and safety requirements (Q66)

These are considered in turn below. 32 of the respondents (59%) replied to these questions. Of these, three are citizens, four are public authorities and 25 are professional organisations. Of the latter, six are private companies and 19 are non-private companies. The question numbers refer to the professional questionnaire.

5.2 III.1.a Occupational Safety and Health Framework Directive (Qns 45-50)

5.2.1 Costs

Respondents' view of the costs incurred as a result of following health and safety measures are shown in Figure 5-1. Three measures were indicated as causing significant costs by 25% or more of the respondents:

- Employing dedicated health and safety personnel (in-house or externally)
- Purchasing personal protective equipment
- Implementing protective organisational measures

However, the first and last measures listed above were also considered to incur no cost by 23% or more respondents.

87% of respondents considered "Purchasing personal protective equipment" was a significant or moderate cost and two further measures were considered to incur significant or moderate costs by 90% or more respondents:

- Information and training for workers on health and safety
- Evaluation of the risks to the health and safety of workers

Only one measure caused less than 70% of respondents a significant or moderate cost: "reporting on occupational accidents".

There was no significant difference in respondents' view of costs by type of respondent, or whether they were representing a private or non-private company. Views varied according to the type of

organisation. Of industry/business association respondents, 57% think that the cost of “purchasing personal protective equipment” is significant compared with 30% overall. Of workers’ organisations / associations / trade unions, 75% consider the cost of “implementing protective organisational measures” significant compared with 25% overall.

The single respondent indicating an “Other” issue with a moderate cost does not comment to say what this might be.

5.2.2 Benefits

Respondents’ views of the benefits arising from following health and safety measures are shown in Figure 5-2. All the issues except one were indicated as giving significant benefit by 56% of respondents or more, with 88% or more respondents indicating a significant or moderate benefit. The exception was “reporting on occupational accidents”, which still indicated 40% and 76% respectively.

Industry / business associations consider all the benefits less important than the average view, with the exception of benefits from “information and training for workers on health and safety”, for which they have a similar view. Otherwise, the respondents’ type or category makes little difference.

Respondents representing private or non-private companies do tend to have a different view from the rest. Respondents representing private companies consider the benefits of the four measures listed below more significant, and the benefit of one measure, “monitoring worker’s health”, less important compared with the overall view:

- Evaluating the risks to the health and safety of workers
- Employing dedicated health and safety personnel (in-house or external)
- Information and training for workers on health and safety
- Purchasing personal protective equipment

In contrast, respondents representing non-private companies consider all the benefits resulting from the measures less important with the exception of “implementing protective organisational measures” and “reporting on occupational accidents”.

Comparing the costs with the benefits, generally the measure incurring the higher costs gave the higher benefits. Two measures were out of step with this (although the second still delivers a considerable benefit):

- “Evaluating the risks to the health and safety of workers” was identified as incurring a significant cost by 13% of respondents, whereas 72% believed this gave a significant benefit.
- “Purchasing personal protective equipment” was identified as incurring a significant cost by 30% of respondents and 56% believed this gave a significant benefit.

This respondent sums up many views: “A bad working environment is causing pain, reduced work capacity (that lowers lifetime income), high rates of occupational diseases and early retirement. It is also expensive for the companies, harmful for the image of the sector in general. Injuries are expensive for society. The actual costs of prevention are modest in comparison and the ageing Europe will need workers of all ages. Measures should be taken in order to prevent early retirement instead.”

One specific comment notes: “Serious international research indicate that the return on investment (RoI) is on an average level 1: 2,2 (one invested dollar gives a return of 2,2 dollars.)”

5.2.3 Contribution of Occupational Safety and Health Framework Directive

Respondents' view of the benefits contributed by the Occupational Safety and Health Framework Directive are shown in Figure 5-3. Three benefits stand out:

- “Reduced risks to workers’ health and safety” – 47% of respondents considered this as having a large positive impact and 94% thought it was a large or slight positive impact.
- “Fewer work days lost due to work related injuries and ill-health” – 20% of respondents considered this as having a large positive impact and 90% thought it was a large or slight positive impact.
- “Increased productivity in the construction sector” – 27% of respondents considered this as having a large positive impact and 57% thought it was a large or slight positive impact.

However, respondents have mixed opinions about several benefits. “Increased productivity in the construction sector”; 27% believe that there is no impact and 17% think there is a large or slight negative impact. Whilst 34% indicate a positive impact from “reduced legal costs for companies in the construction sector”, 28% think there is no impact and 24% believe there is a negative impact.

“Reduced insurance premiums for companies in the construction sector” and “increased employee retention in the construction sector” both have 10% of respondents who think they have a large or slight negative impact.

Workers organisation / association / trade unions consider indicate that two benefits have more positive impact: “reduced insurance premiums for companies in the construction sector” and “increased productivity in the construction sector”. Otherwise, the respondents’ type or category makes little difference.

Respondents representing private or non-private companies have similar views here with the following exceptions:

- “Reduced risks to workers’ health and safety” – private companies are more positive
- “Increased productivity in the construction sector” - non-private companies are more negative
- “Fewer work days lost due to work related injuries and ill-health” - private companies are more positive and non-private companies are more negative

One comment sums up many respondents’ views: “OSH improves the productivity and image of the construction sector.”

Professional Q46 & Q48 (Citizen Q37, Authority Q40)

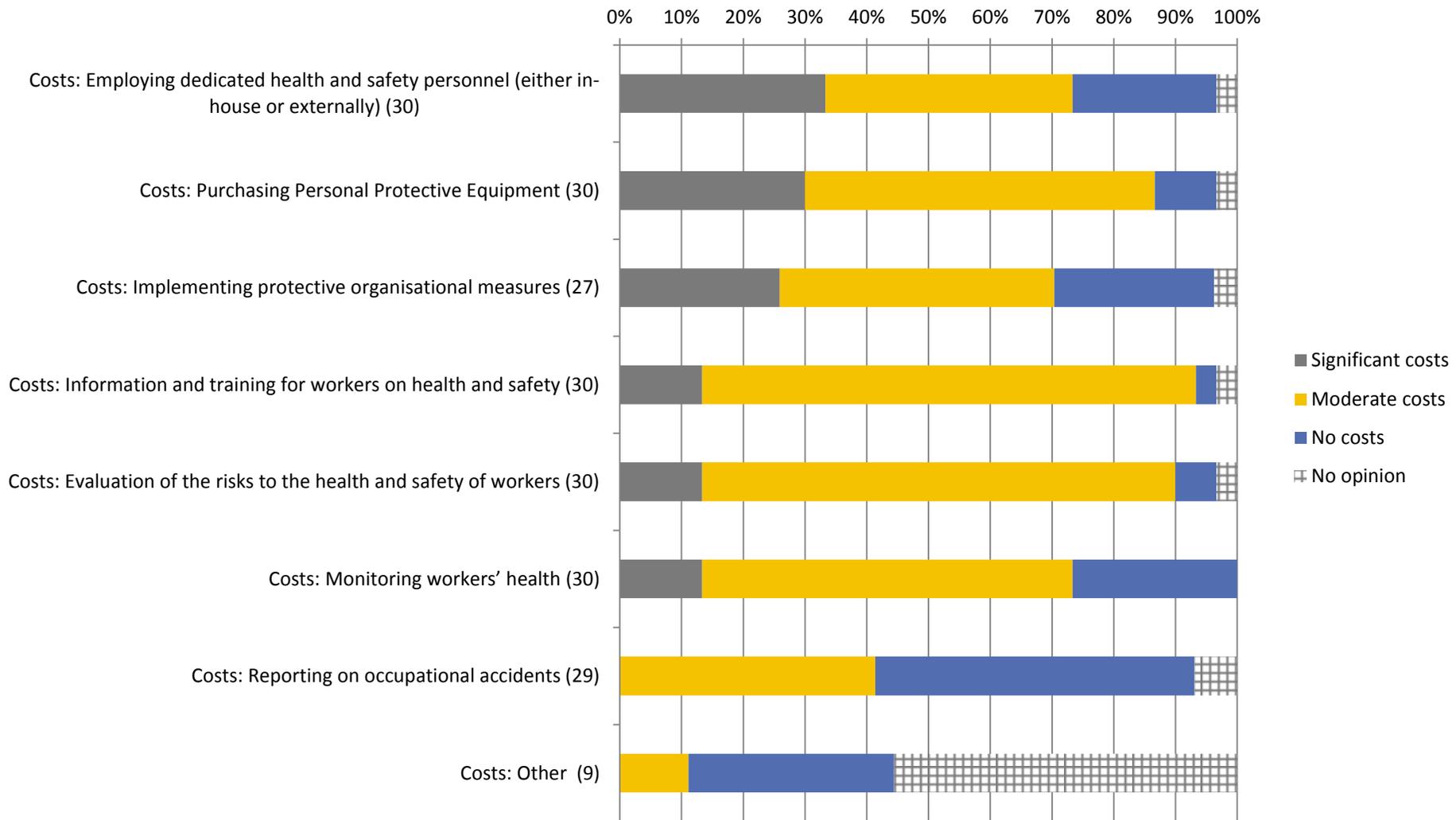


Figure 5-1: The extent of costs incurred as a result of following health and safety measures (Professional Q46 & Q48, Citizen Q37, Authority Q40)

Professional Q47 & Q49 (Citizen Q38, Authority Q41)

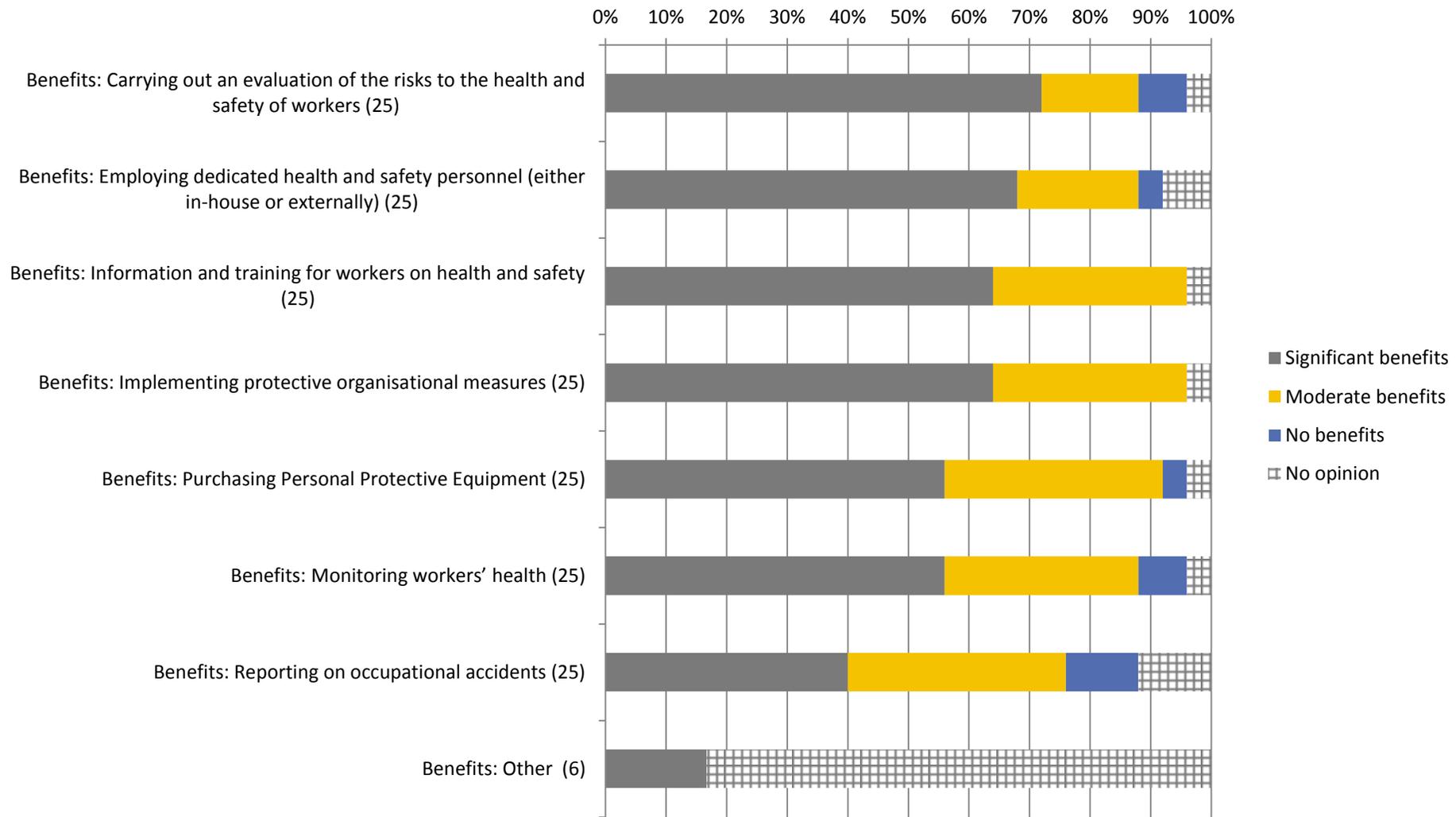


Figure 5-2: The extent of benefits arising as a result of following health and safety measures (Professional Q47 & Q49, Citizen Q38, Authority Q41)

Professional Q50 (Citizen Q39, Authority A42)

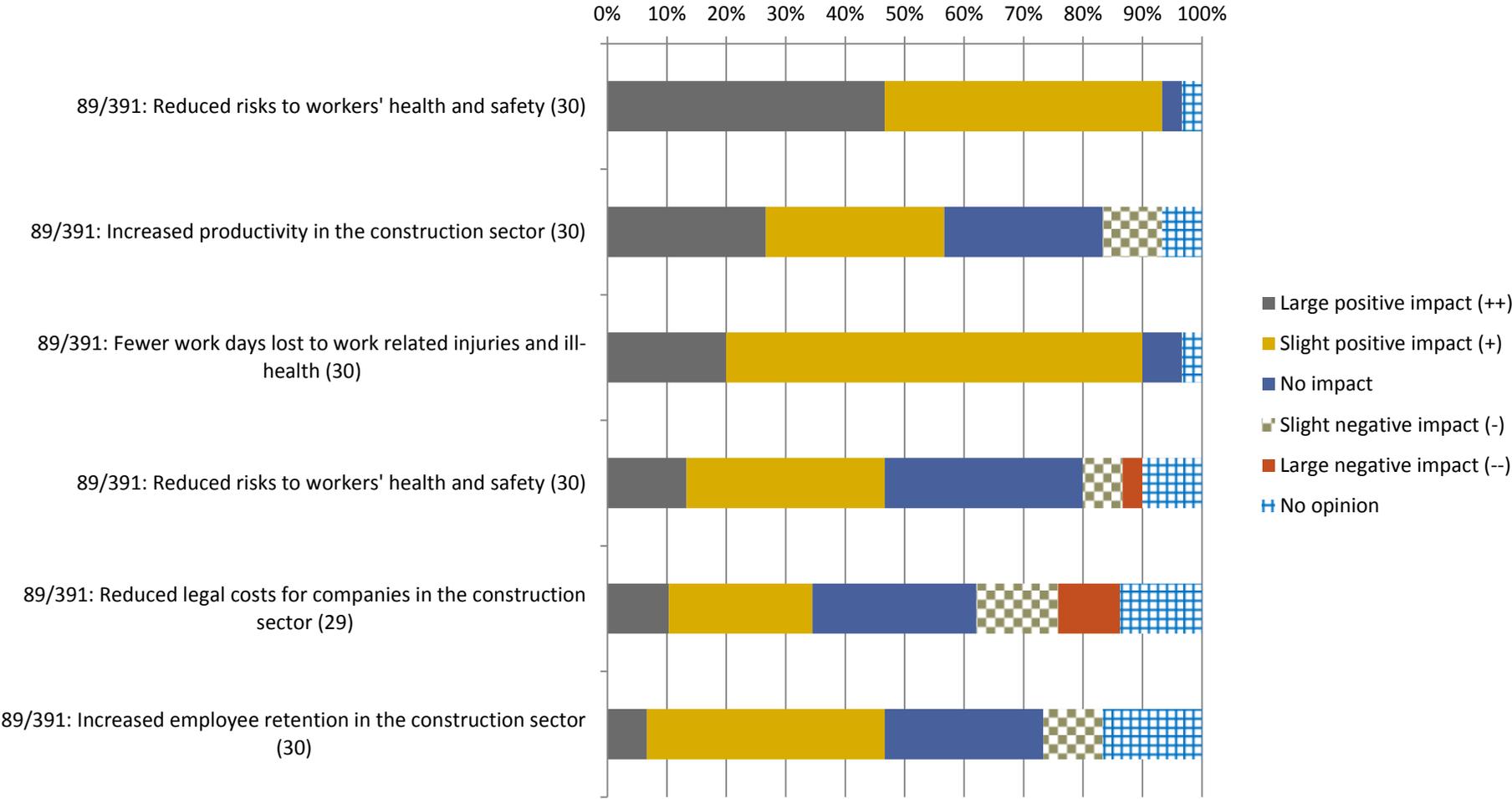


Figure 5-3: The extent that Occupational Safety and Health Framework Directorate (89/391/EEC) contributed the following benefits (Professional Q50, Citizen Q39, Authority A42)

5.3 III.1.b Manual handling of loads (Qns 51-55)

5.3.1 Costs

Respondents' view of the costs incurred as a result of measures to reduce the risks associated with manual handling of loads by workers are shown in Figure 5-4. Three measures are indicated as causing significant or moderate costs by 70% or more of the respondents:

- Purchasing mechanical equipment to avoid the need for manual handling of loads by workers
- Implementing organisational measures to reduce the risk involved in the manual handling of loads
- Providing training on the correct way to handle loads

“Providing information on the weight and centre of gravity of heavy loads” is unusual in that a high percentage (57%) of respondents indicated that there were no related costs.

Overall, citizens were more likely to consider all the issues would result in no or lower costs than the average view. There was no significant difference between the views of respondents from different categories.

Respondents representing private companies tend to indicate two kinds of costs are higher: “purchasing mechanical equipment to avoid the need for manual handling of loads by workers” and “implementing organisational measures to reduce the risk involved in the manual handling of loads.”

Two “Other” costs were raised as a moderate costs. One respondent says: “In Germany there is an obligation to have a health insurance for employees,” which could be seen as a potential benefit as good health and safety procedures might lead to a reduction in insurance premiums. Another respondent indicated that there is a cost associated with “trolleys to help safe moving.”

5.3.2 Benefits

Respondents' view of the benefits arising from following measures to reduce the risks associated with manual handling of loads by workers are shown in Figure 5-5. All the measures are indicated as a significant or moderate benefit by 86% or more respondents.

Industry / business associations consider all the benefits less important than the average view. Otherwise, the respondents' type or category makes little difference to their view.

Respondents representing private or non-private companies have a different view to each other, and everyone else, for two benefits listed below:

- Providing training on the correct way to handle loads
- Providing information on the weight and centre of gravity of heavy loads

In both cases, respondents representing private companies were more positive about the benefits and respondents representing non-private companies were more negative about the benefits compared with the average view.

Comparing the costs with the benefits, generally the measures incurring the higher costs give the higher benefit. One issue stands out:

- “Providing training on the correct way to handle loads” was identified as incurring a significant or moderate cost by only 32% of respondents, with 57% indicating no cost at all. However, 89% associated this with a significant or moderate benefit.

One respondent indicates an “Other” measure as a significant benefit: “Higher benefits can be received from updating the manual handling and VDU directives, as noted in the COWI evaluation. “

This respondent sums up many views: “The importance of technical equipment is vital. Heavy lifters support the speed of construction work and help the workers. The cost of such equipment is low compared to disability pension. ”

5.3.3 Contribution of Directive 90/269/EEC on manual handling of loads

Respondents’ view of the benefits contributed by Directive 90/269/EEC on manual handling of loads is shown in Figure 5-6. Three benefits stand out for the number of respondents who consider that they deliver a large positive impact:

- Reduced risks to workers' health and safety – 50% of respondents considered this as having a large positive impact and 86% thought it was a large or slight positive impact.
- Fewer work days lost to work related injuries and ill-health – 43% of respondents considered this as having a large positive impact and 72% thought it was a large or slight positive impact.
- Increased productivity in the construction sector – 32% of respondents considered this as having a large positive impact and 50% thought it was a large or slight positive impact.

However, there are some mixed opinions about some “benefits”, with several obtaining 25% or more respondents indicating no impact. All but one benefit have at least 4% (one respondent) indicating a negative impact. “Reduced insurance premiums for companies in the construction sector” and “reduced legal costs for companies in the construction sector” both have some respondents indicating a large negative impact. The “legal benefit” divides opinion the most: 31% of respondents think it has a positive impact, 35% no impact and 16% negative impact.

Generally, the respondents’ type or category makes little difference to their view.

Respondents representing private or non-private companies are similar to the overall views here with the following exceptions:

- Fewer work days lost to work related injuries and ill-health – private companies are more negative
- Increased productivity in the construction sector - private companies are more negative and non-private companies are more positive

One comment stands out: “This directive has established a level playing field and has moved the costs of prevention from the employer to be borne by the party that has commissioned the building.”

Please indicate the extent of any costs incurred by the construction sector as a result of the following measures designed to reduce the risks associated with the manual handling of loads by workers.

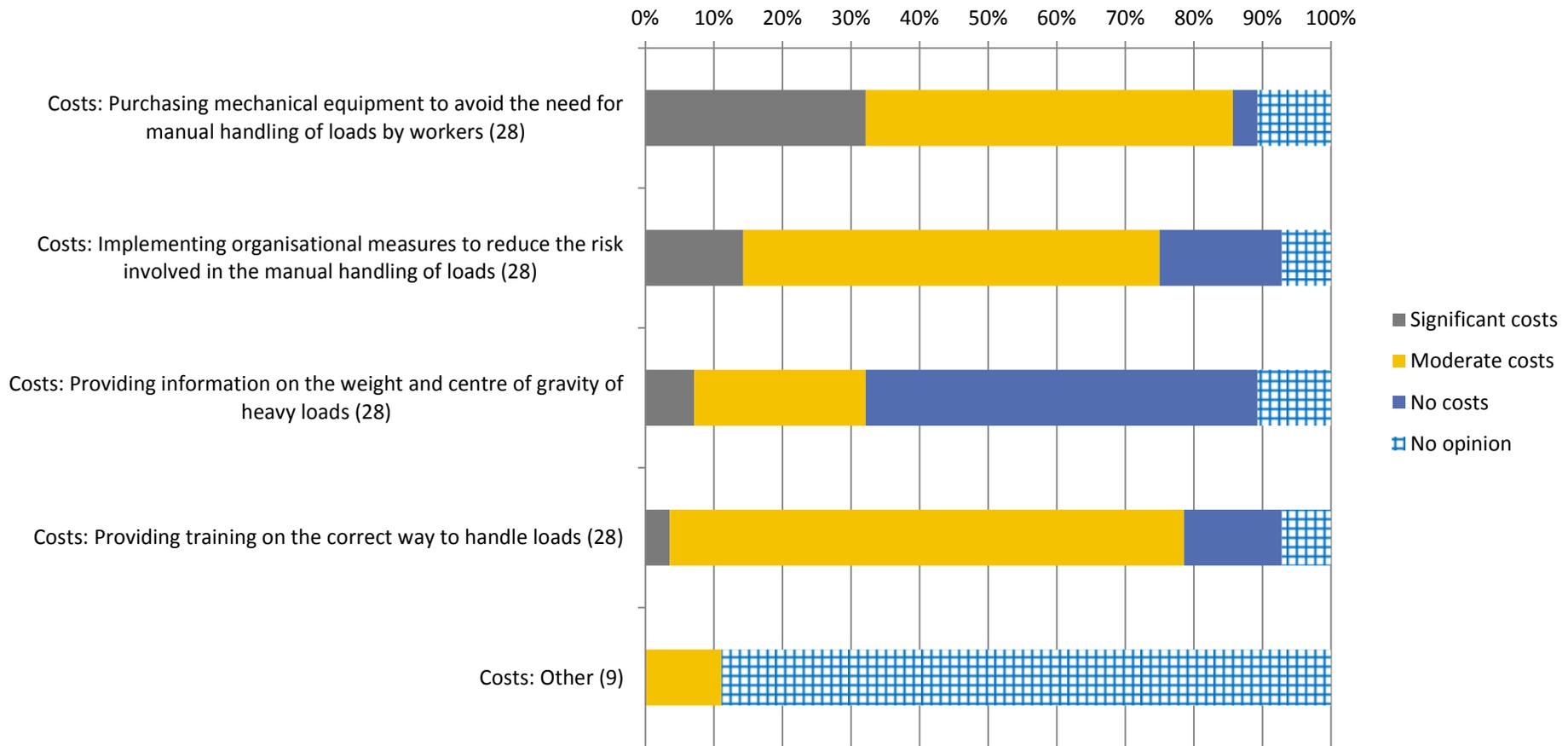


Figure 5-4: The extent of costs incurred as a result of following measures designed to reduce the risks associated with manual handling of loads (Professional Q51 & Q53, Citizen Q40, Authority Q43)

Professional Q52 & Q54 (Citizen Q41, Authority Q44)

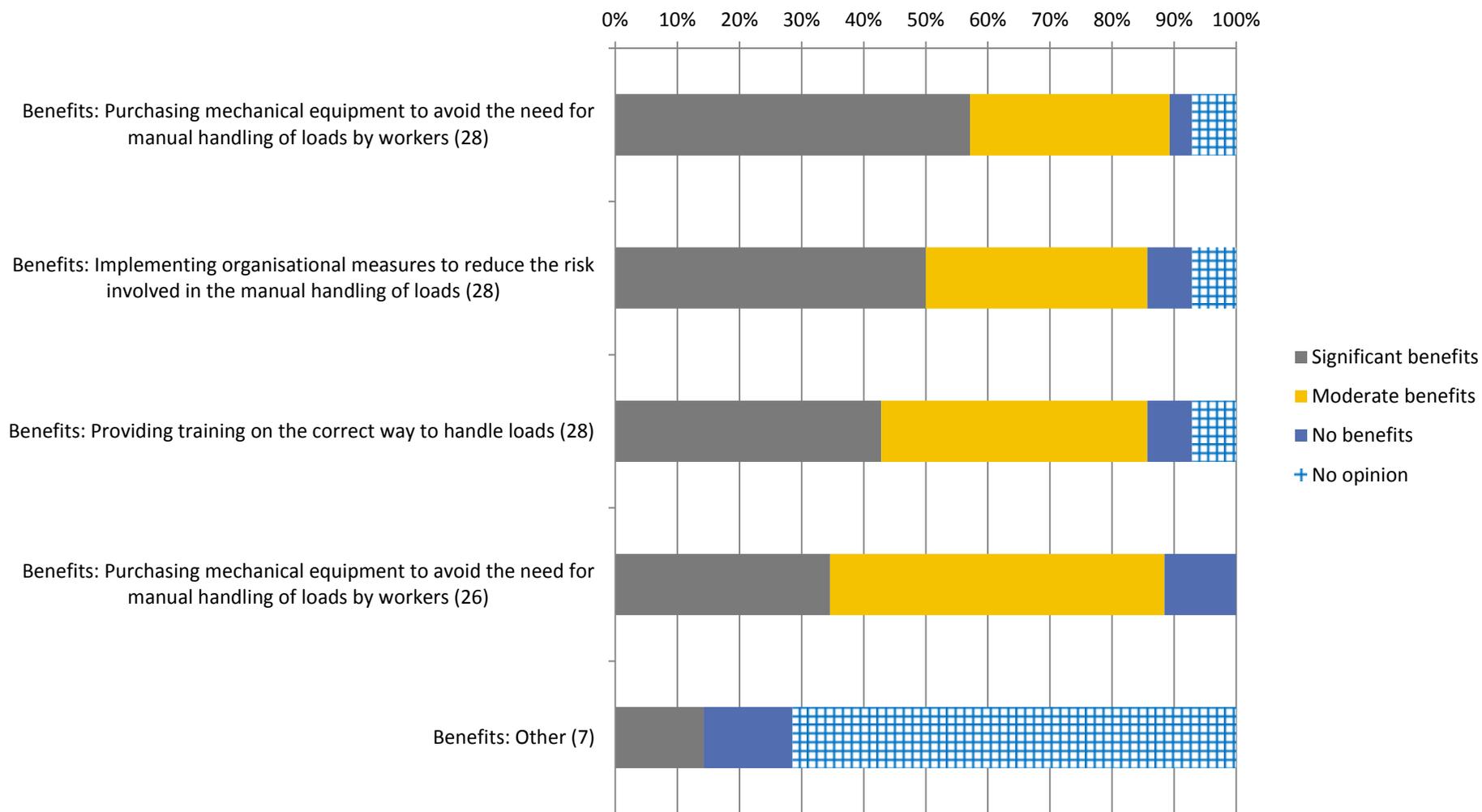


Figure 5-5: The extent of benefits arising as a result of following measures designed to reduce the risks associated with manual handling of loads (Professional Q52 & Q54, Citizen Q41, Authority Q44)

Professional Q55 (Citizen Q42, Authority Q45)

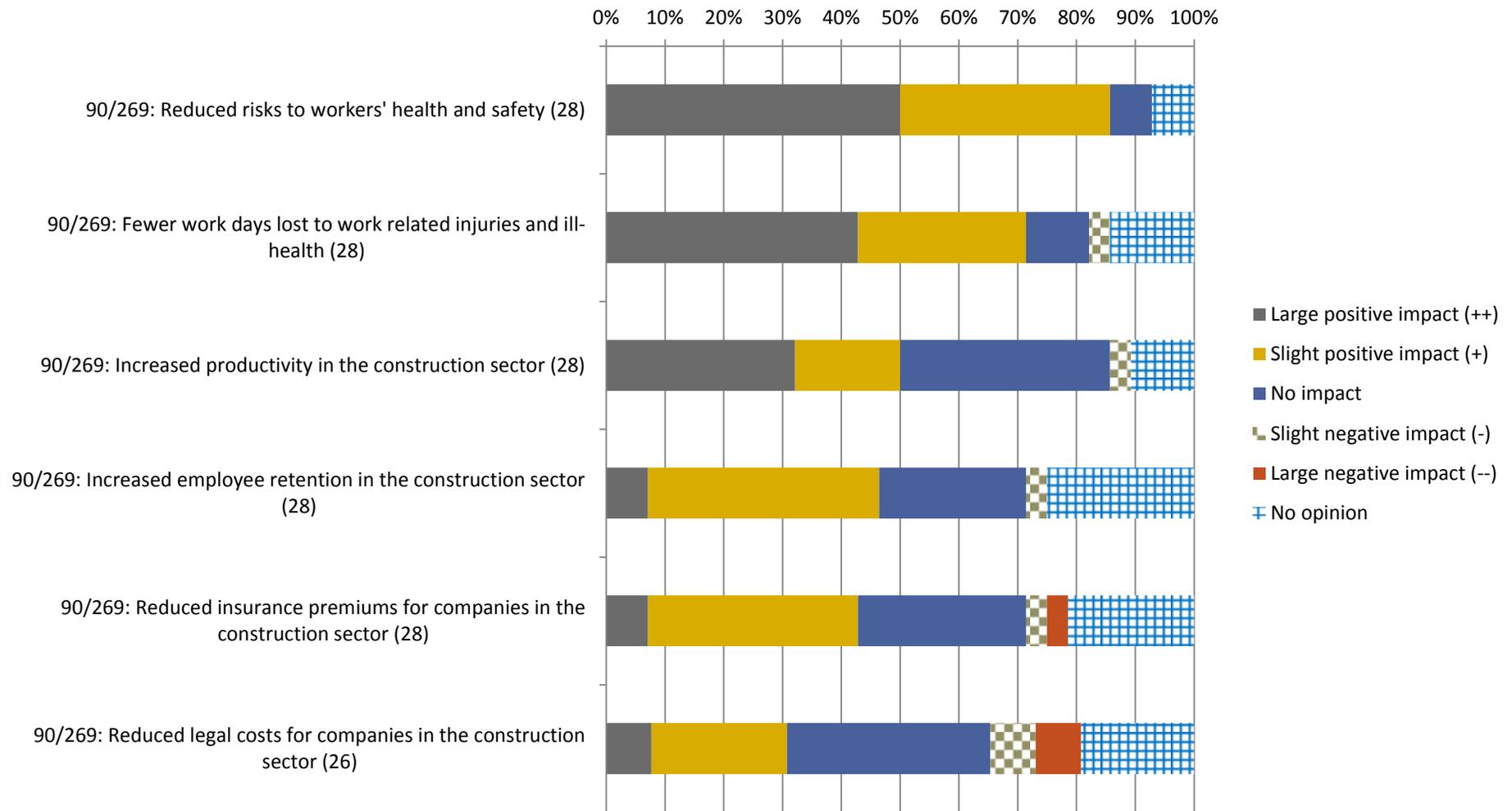


Figure 5-6: The extent that Directorate (90/269/EEC) on manual handling of loads contributed the following benefits (Professional Q55, Citizen Q42, Authority Q45)

5.4 III.1.c Temporary or mobile construction sites (Qns 56-60)

5.4.1 Costs

Respondents' view of the costs incurred as a result of the following health and safety measures on temporary or mobile construction sites are shown in Figure 5-7. All the costs were indicated as significant or moderate by 58% or more respondents.

Overall, public authorities and citizens both tend to indicate the costs are lower than professional respondents. Otherwise, the respondents' category makes no significant difference to their view.

Respondents representing private companies consider the two costs listed below to be more significant:

- Appointing one or more coordinators for health and safety matters
- Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive

Respondents representing non-private companies consider the costs of "drawing up a safety and health plan" more significant.

One respondent indicates an "Other" issue of moderate cost: "In practice the health and safety coordinator carries out several tasks like work organisation, cooperation between companies and subcontractors and between different occupations on the construction site. The preventive potential of a health and safety coordinator is high and a cost-effective way to avoid risks in construction."

Two comments are interesting:

- "The obligation to have a first-aider on all temporary or mobile construction sites imposes important costs on construction companies, but also raises many questions. Besides, the transposition of Directive 92/57/EEC into Belgian law brings unnecessary complications to construction firms, entailing additional costs."
- "[The] measures [in question 46] are part of business operations and not separated from business-as-usual."

5.4.2 Benefits

Respondents' view of the benefits arising from following of the following health and safety measures on temporary or mobile construction sites are shown in Figure 5-8. All the measures were indicated as of significant or moderate benefit for 64% of respondents or more.

The respondents' type or category makes no significant difference.

Respondents representing private companies consider all of the benefits listed more significant. Respondents representing non-private companies consider all of the benefits listed less important, except "drawing up a safety and health plan", where they had a similar view to the average.

Comparing the costs with the benefits, the measures incurring the more significant costs give the more significant benefits.

Two respondents indicated an "Other" issue with significant benefits. One does not leave a comment to explain, the other says: "Significant interest for new technologies as BIM."

5.4.3 Contribution of 92/57/EEC Directive on the minimum safety and health requirements for temporary or mobile construction sites

Respondents' view of the benefits contributed by the Directive 92/57/EEC on the minimum safety and health requirements for temporary or mobile construction sites are shown in Figure 5-9. Two benefits stand out for their positive impact:

- Reduced risks to workers' health and safety – 39% of respondents considered this a large positive impact and 82% thought it was a large or slight positive impact.
- Fewer work days lost to work related injuries and ill-health – 39% of respondents considered this a large positive impact and 78% thought it was a large or slight positive impact.

One benefit stands out for a relatively high number of people indicating a negative impact:

- Reduced legal costs for companies in the construction sector – 9% of respondents considered this a large negative impact and 18% thought it was a large or slight negative impact

The respondents' type or category makes no significant difference.

Respondents representing private companies consider two benefits listed as more positive: “reduced risks to workers' health and safety” and “fewer work days lost to work related injuries and ill-health.” They view “Reduced insurance premiums for companies in the construction sector” in a more negative light.

Respondents representing non-private companies consider most of the benefits listed as less positive, except “fewer work days lost to work related injuries and ill-health” and “increased productivity in the construction sector”, where they have a similar view to the average.

Professional Q56 & Q58 (Citizen Q43, Authority Q46)

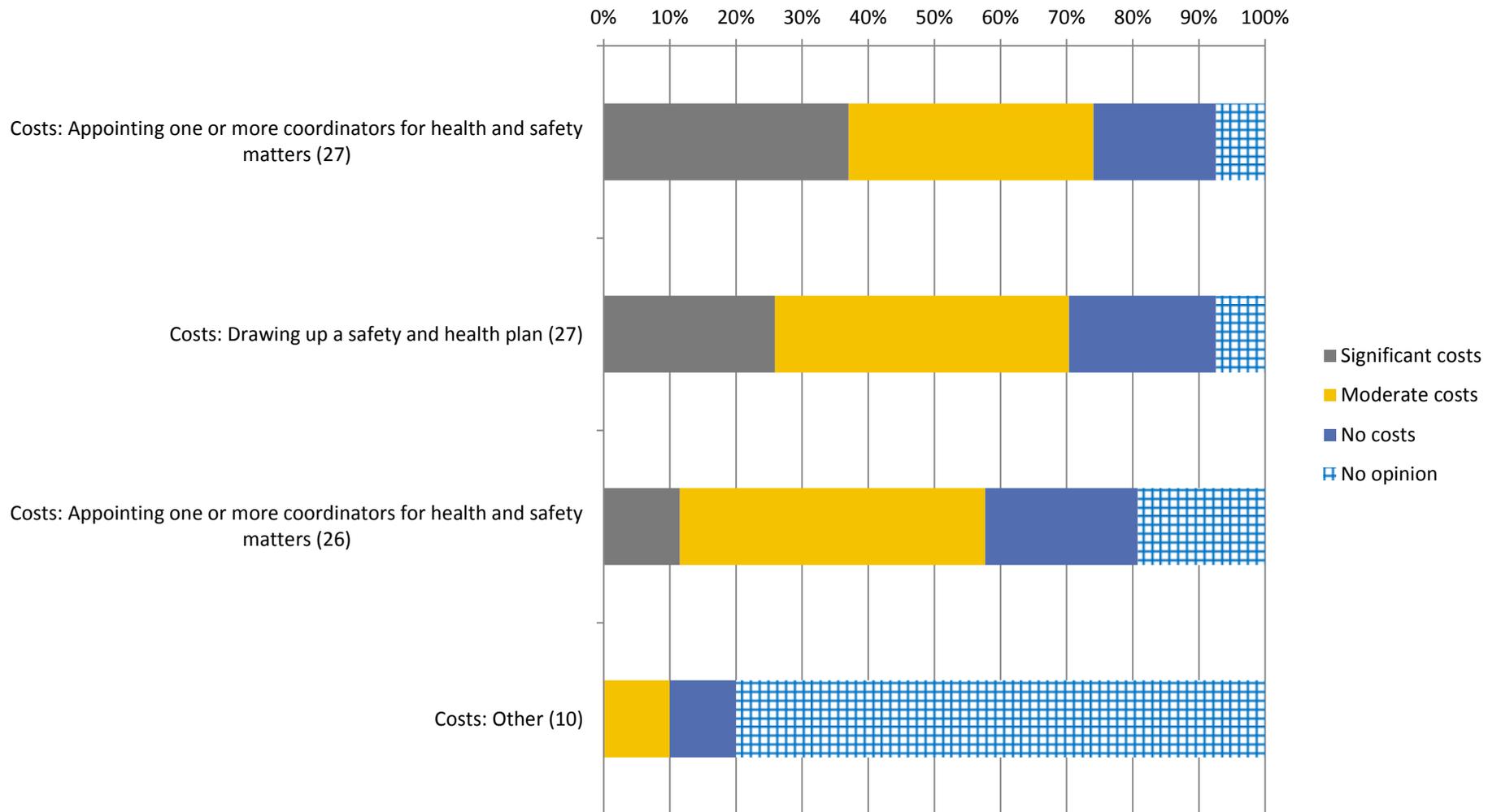


Figure 5-7: The extent of costs incurred as a result of following health and safety measures on temporary or mobile construction sites Professional Q56 & Q58, Citizen Q43, Authority Q46)

Professional Q57 & Q59 (Citizen Q44, Authority AQ7)

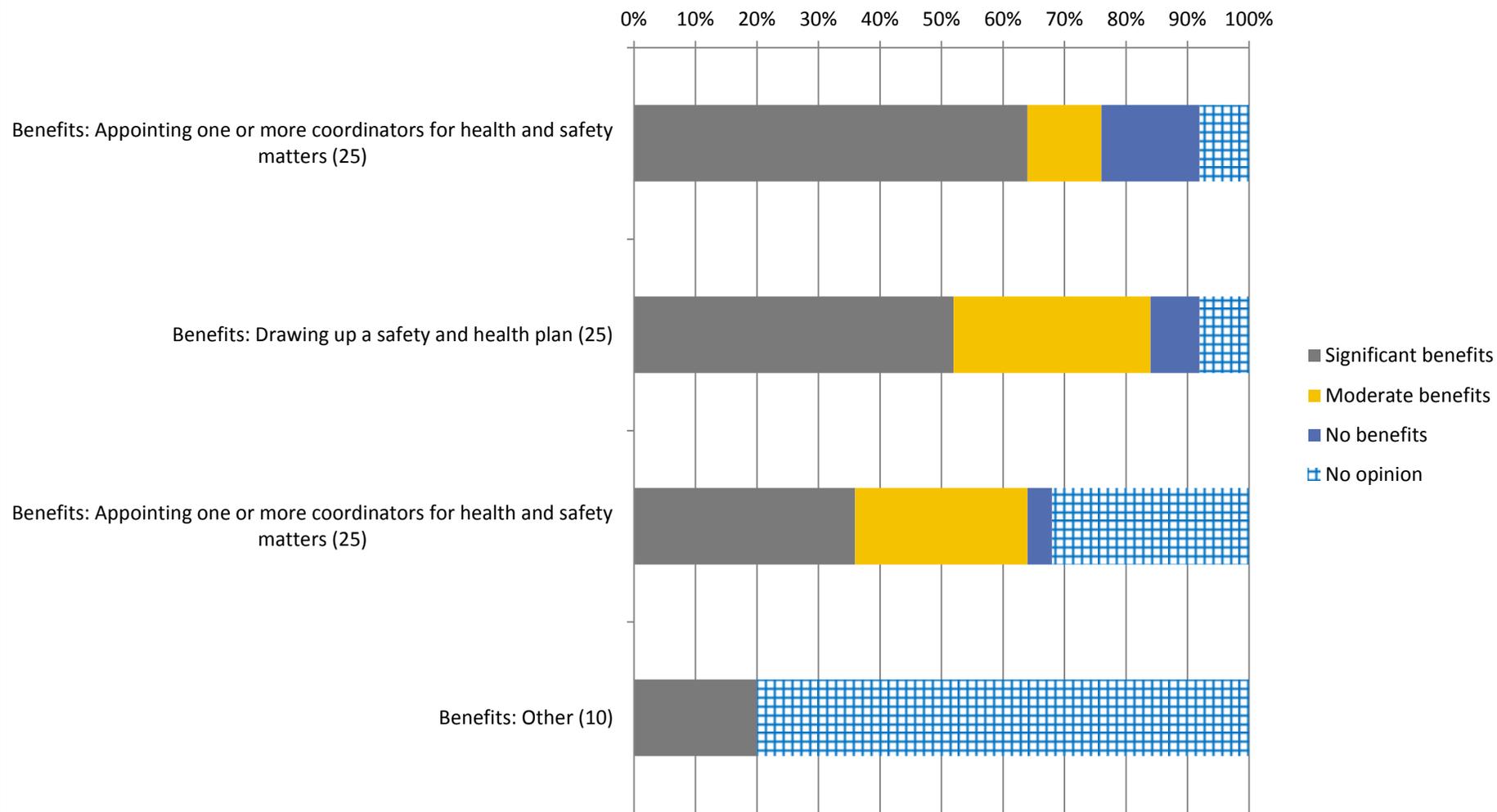


Figure 5-8: The extent of benefits arising as a result of following health and safety measures on temporary or mobile construction sites (Professional Q57 & Q59, Citizen Q44, Authority AQ7)

To what extent has Directive 92/57/EEC on the minimum safety and health requirements for temporary or mobile construction sites contributed to the following benefits?

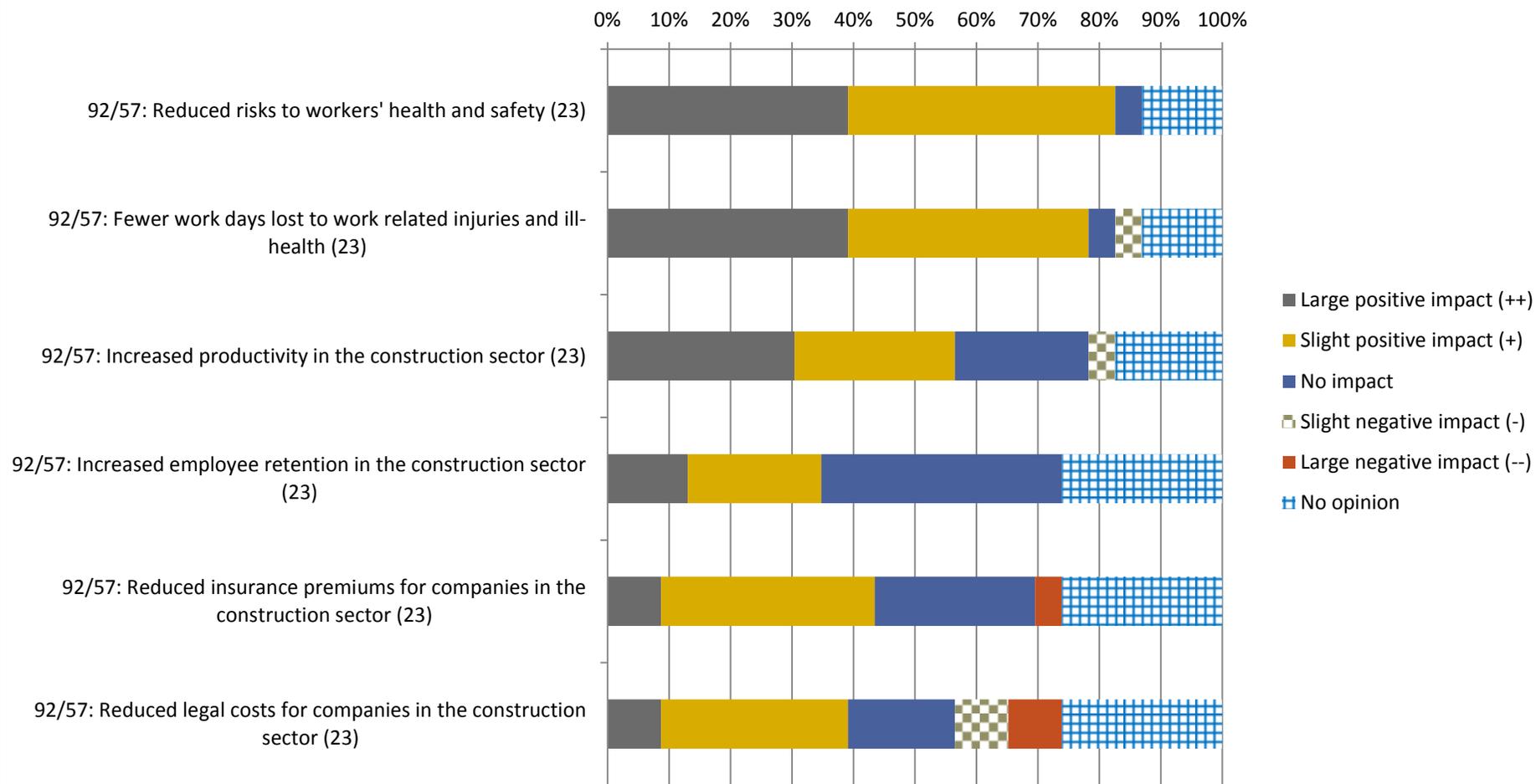


Figure 5-9: The extent that Directorate (92/57/EEC) on minimum health and safety requirements for temporary or mobile construction sites contributed these benefits (Professional Q60, Citizen Q45, Authority Q48)

5.5 III.1.d Asbestos Directive (Qns 61-65)

5.5.1 Costs

Respondents' view of the costs incurred as a result of measures designed to reduce the risks to workers associated with asbestos are shown in Figure 5-10. Two measures were indicated as causing significant cost by 40% of the respondents:

- Storing, transporting and cleaning materials and equipment contaminated with asbestos dust
- Measuring asbestos fibres in the air at the workplace

For all of the remaining measures, over 50% of respondents indicated moderate costs or no costs, with four measures receiving high indication of no cost:

- Submitting a notification to the responsible authority – 52% of respondents said there was no cost incurred
- Implementing organizational measures – 36% of respondents said there was no cost incurred
- Drawing up a plan of work – 33% of respondents said there was no cost incurred
- Purchasing and displaying warning signs – 24% of respondents said there was no cost incurred

In general, public authorities and citizens are particularly likely to indicate that the above measures incurred no cost. If a measure has a high number of respondents indicating a significant cost (over 24%), industry / business associations are more likely to have indicated significant costs.

Respondents representing private companies consider the costs lower for the two measures that otherwise are indicated as incurring the most significant costs:

- Storing, transporting and cleaning materials and equipment contaminated with asbestos dust
- Measuring asbestos fibres in the air at the workplace

Respondents representing private companies consider the costs higher for two measures that others indicate as incurring the some of the lowest costs:

- Submitting a notification to the responsible authority
- Purchasing and displaying warning signs

However, respondents representing non-private companies tend to consider the costs of all measures higher than the average, with the exception of four measures:

- Measuring asbestos fibres in the air at the workplace
- Purchasing other equipment to minimize exposure to dust arising from asbestos
- Compiling & submitting information to national register, indicating nature & duration of worker's activity & exposure
- Submitting a notification to the responsible authority

One "Other" issue was raised with a significant cost: "mandatory qualification of companies specialized in the removal of asbestos - obligation of asbestos locating."

This comment summed up several responses; “Asbestos still causes more deaths than any other substance in the working environment. Even very low doses causes asbestosis and lung cancer. Asbestos related diseases often become virulent after the end of a person’s career. Considering how dangerous asbestos is, the costs of preventive measures are quite modest.”

5.5.2 Benefits

Respondents’ view of the benefits arising measures designed to reduce the risks to workers associated with asbestos is high and these are shown in Figure 5-11. Over 36% of respondents consider the benefits of every measure to be of significant benefit and, for all but one measure, over 70% of respondents consider the benefits to be of significant or moderate benefit. The exception is “submitting a notification to the responsible authority”, which was felt to give no benefit by 24% of respondents.

In general, industry / business associations tend to think the benefits are less significant and workers organisations / associations / trade unions tend to think the benefits are more significant for nearly every measure.

Perhaps unsurprisingly, public authorities tend to think “submitting a notification to the responsible authority” is more beneficial than other respondent types.

For most measures, respondents representing private or non-private companies have a similar view to the other respondents. The exceptions are:

- Respondents representing private companies tend to think that “training of workers who are, or are likely to be, exposed to dust from asbestos” is a less significant benefit and “undertaking clinical surveillance of workers” is a more significant benefit
- Respondents representing non-private companies tend to be diametrically opposed to the above view of private companies, indicating that “training workers” is a more significant benefit and “undertaking clinical surveillance” is a less significant benefit. They also indicate fewer benefits from “purchasing and displaying warning signs” and “undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos.”

Comparing the costs with the benefits, broadly measures with the higher cost give the higher benefit. Three measures were out of step with this:

- “Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos” is identified as incurring a significant cost by 16% of respondents and 56% believed this gave a significant benefit.
- “Training of workers who are, or are likely to be, exposed to dust from asbestos” is identified as incurring a significant cost by 24% of respondents, whereas 64% believed this gave a significant benefit.
- “Purchasing respiratory and/or other personal protective equipment” is identified as incurring a significant cost by 24% of respondents, whereas 60% believed this gave a significant benefit.

One comment sounds a note of caution: “The legislative framework has indeed led to an improvement of preventive measures concerning the removal of asbestos. However, the cost of these measures is so huge for building owners that too few works could be undertaken under good conditions.”

5.5.3 Contribution of Asbestos Directive (2009/148/EC)

Respondents' view of the benefits contributed by the Asbestos Directive (2009/148/EC) is shown in Figure 5-12 and the measures receive a wide range of responses. Three benefits stand out for different reasons:

- Reduced risks to workers' health and safety – 58% of respondents considered this a large positive impact and 83% thought it was a large or slight positive impact. 17% had no opinion, therefore everyone with an opinion thought it was positive.
- Reduced legal costs for companies in the construction sector – this splits opinion a little as 50% of respondents considered this a large or slight positive impact, whereas 12% thought it was a large or slight negative impact.
- Reduced insurance premiums for companies in the construction sector – this also divided opinion as 30% of respondents considered this a large positive impact, 4% thought it was a large negative impact, and 30% thought it had no impact at all.

Public authorities and citizens are more likely to indicate that “reduced risks to workers' health and safety” has a larger positive impact. Industry / business associations and non-governmental organisations are generally the respondents giving the negative impact responses.

Respondents representing private companies consider three benefits more positively: “reduced risks to workers' health and safety”, “reduced legal costs for companies in the construction sector” and “fewer work days lost to work related injuries and ill-health.”

Respondents representing non-private companies view two benefits less positively: “reduced risks to workers' health and safety” and “fewer work days lost to work related injuries and ill-health.”

A couple of respondents raise the issue of workers not specialised in asbestos:

- “the compliance with the training requirements should be improved. This is particularly the case for workers who are not working in specialised asbestos abatement companies but who may be exposed to asbestos like carpenters, electricians or painters.”
- “special attention needs to be given to workers who are confronted with asbestos although they don't work in asbestos specialised companies (e.g. painters).”

Please indicate the extent of any costs incurred as a result of the following measures designed to reduce the risks to workers associated with asbestos

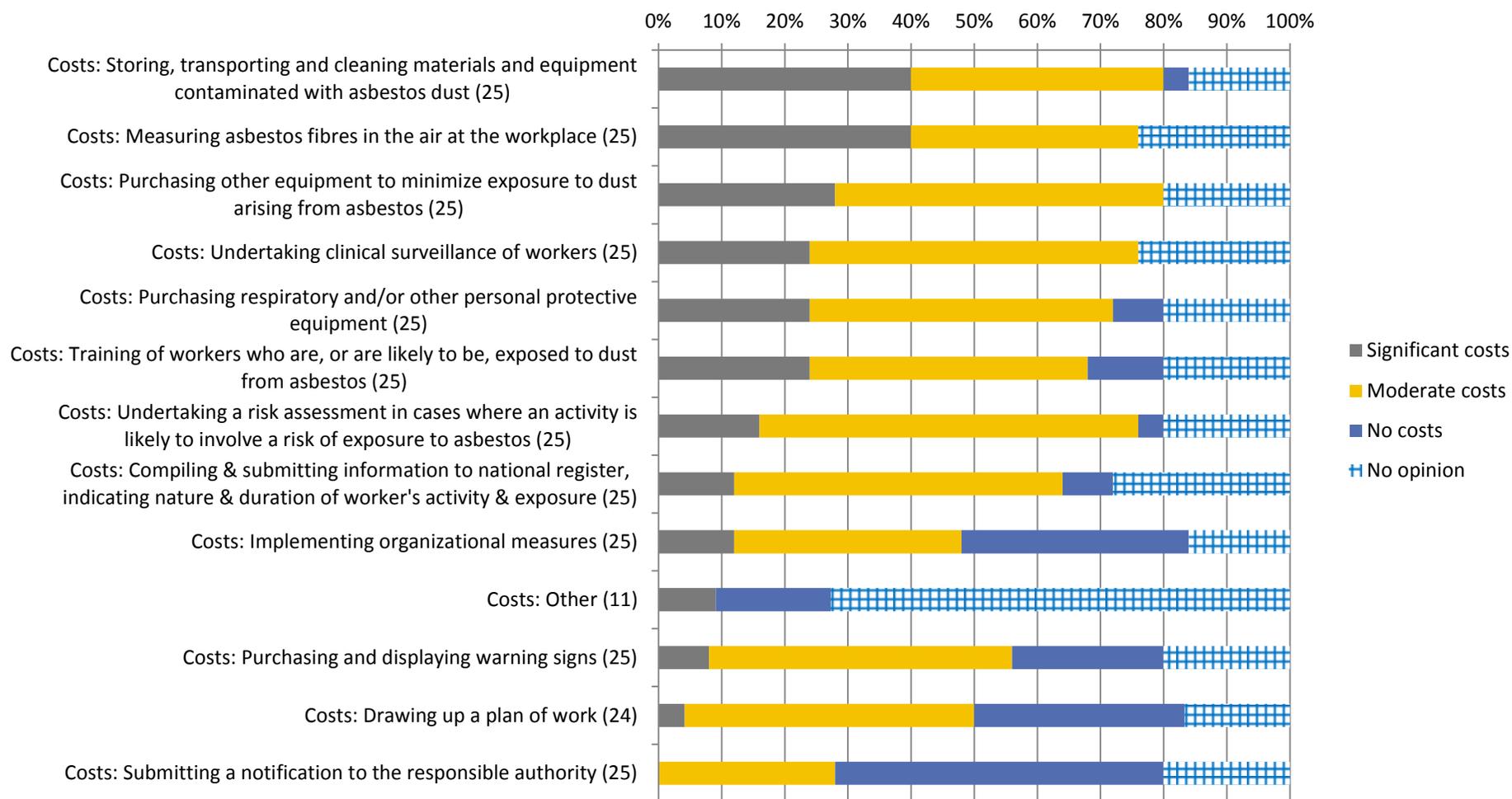


Figure 5-10: The extent of costs incurred as a result of following measures designed to reduce the risks to workers associated with asbestos (Professional Q61 & Q63, Citizen Q46, Authority Q49)

Please indicate the extent of any benefits as a result of the following measures designed to reduce the risks to workers associated with asbestos

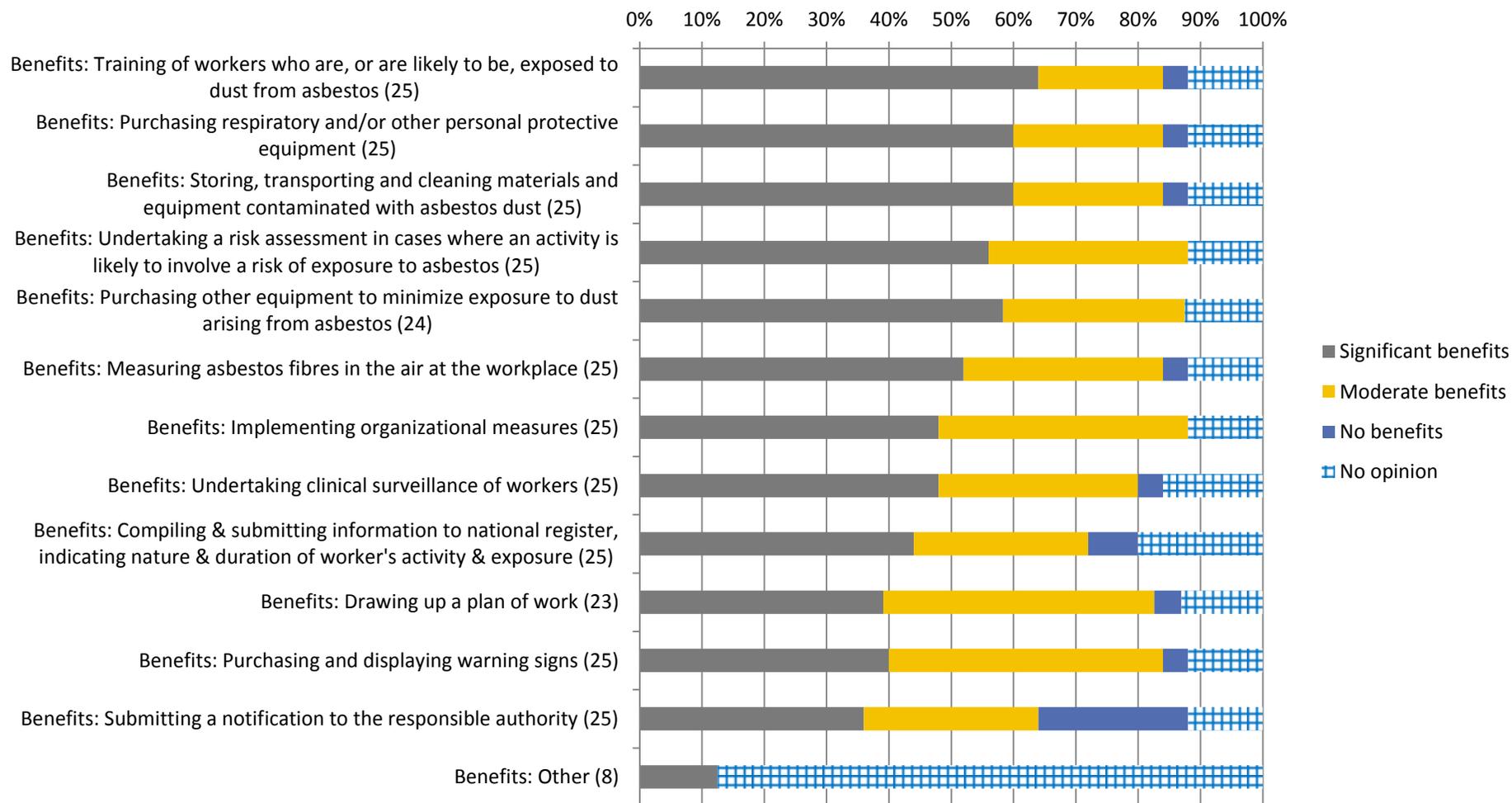


Figure 5-11: The extent of benefits arising as a result of following measures designed to reduce the risks to workers associated with asbestos (Professional Q62 & Q42, Citizen Q47, Authority Q50)

Professional Q65 (Citizen Q48, Authority Q51)

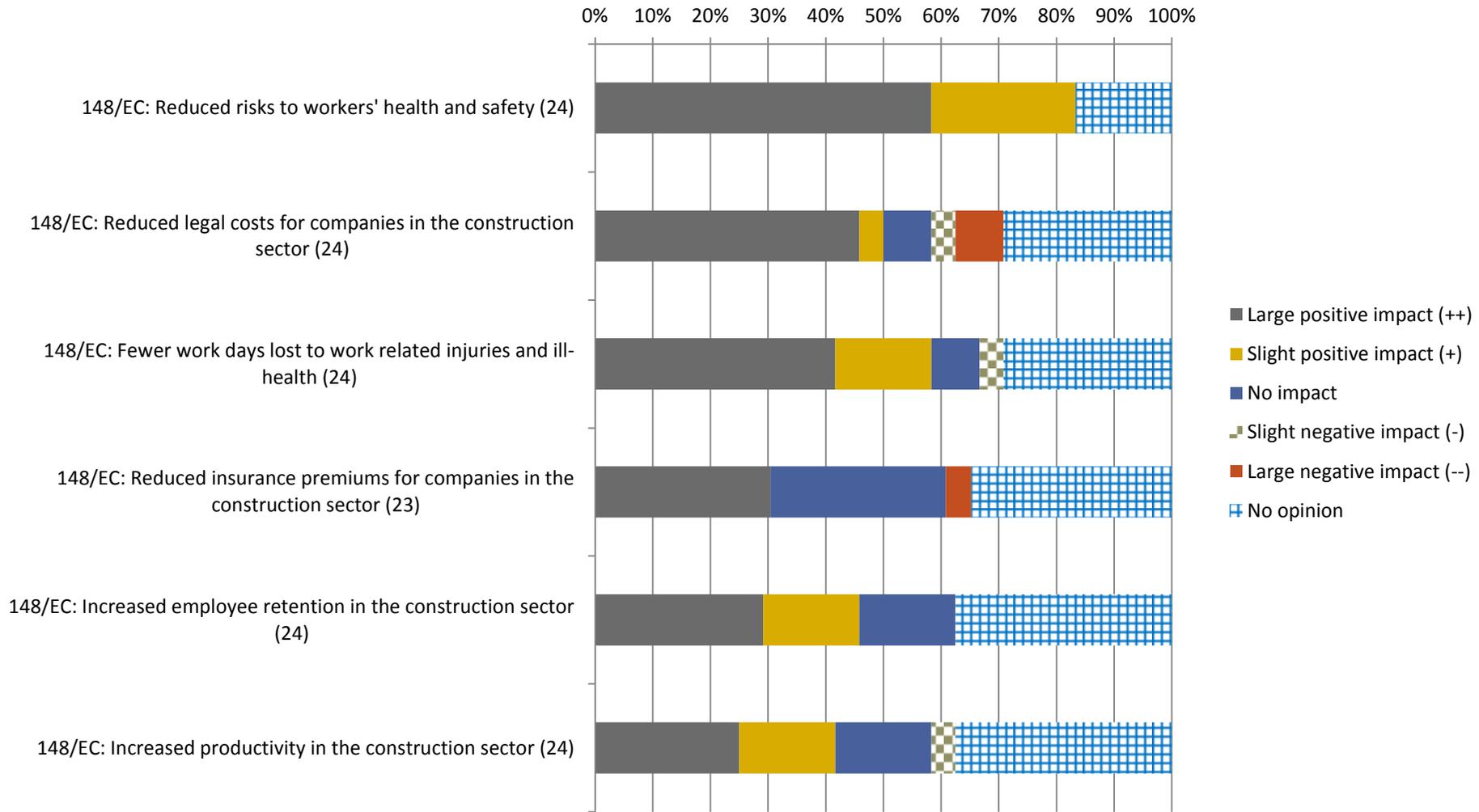
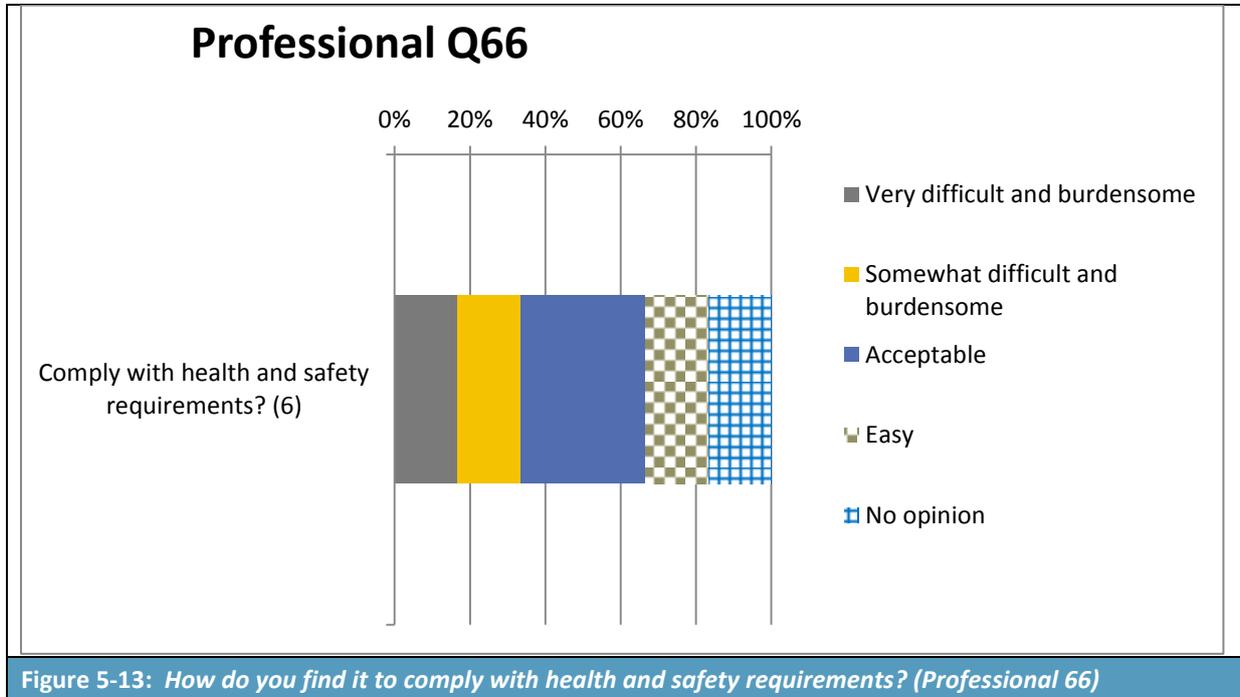


Figure 5-12: To what extent has the Asbestos Directorate (2009/148/EC) contributed the following benefits (Professional Q65, Citizen Q48, Authority Q51)

5.6 III.1 Complying with health and safety requirements (Q66)

Respondents' view of complying with health and safety requirements is shown in Figure 5-13. 34% of respondents indicated that it was either very or somewhat burdensome and 33% thought it was acceptable.

There was no significant difference in respondents' view by type or category of respondent.



6 Analysis of Part III.2 Questions on EU legislation related to the environment and the construction sector

6.1 Introduction

Part III.2 of the questionnaire comprises questions which addressed two themes:

- III.2.a Waste Framework Directive (Qns 69-71)
- III.2.b Environmental Impact Assessment Directive (Qns 72-75)

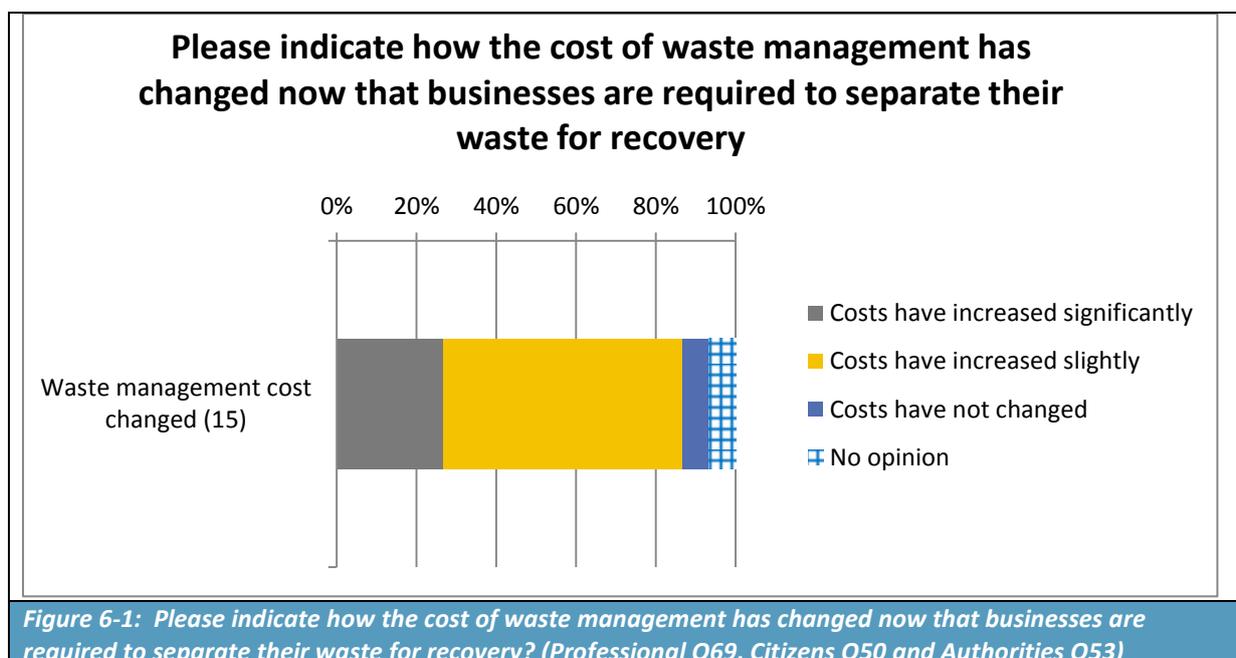
These are considered in turn below. 28 (52%) of the respondents responded to these questions. Of these, one is a citizen, five are public authorities and 22 are professional organisations and, of these, seven are private companies. Furthermore, ten of the 22 professional respondents are industry / business associations, which tend to have a different view to other categories. The question numbers throughout refer to the professional questionnaire.

6.2 III.2.a Waste Framework Directive (Qns 69-71)

6.2.1 Changes in costs

Respondents' view of how the cost of waste management has changed now that businesses are required to separate their waste for recovery is shown in Figure 6-1; only 15 respondents answered this question. 60% of respondents indicated that costs had increased slightly, with a total of 87% of respondents saying that costs had risen, either significantly or slightly.

There was no significant difference in respondents' view of costs by type or category of respondent.

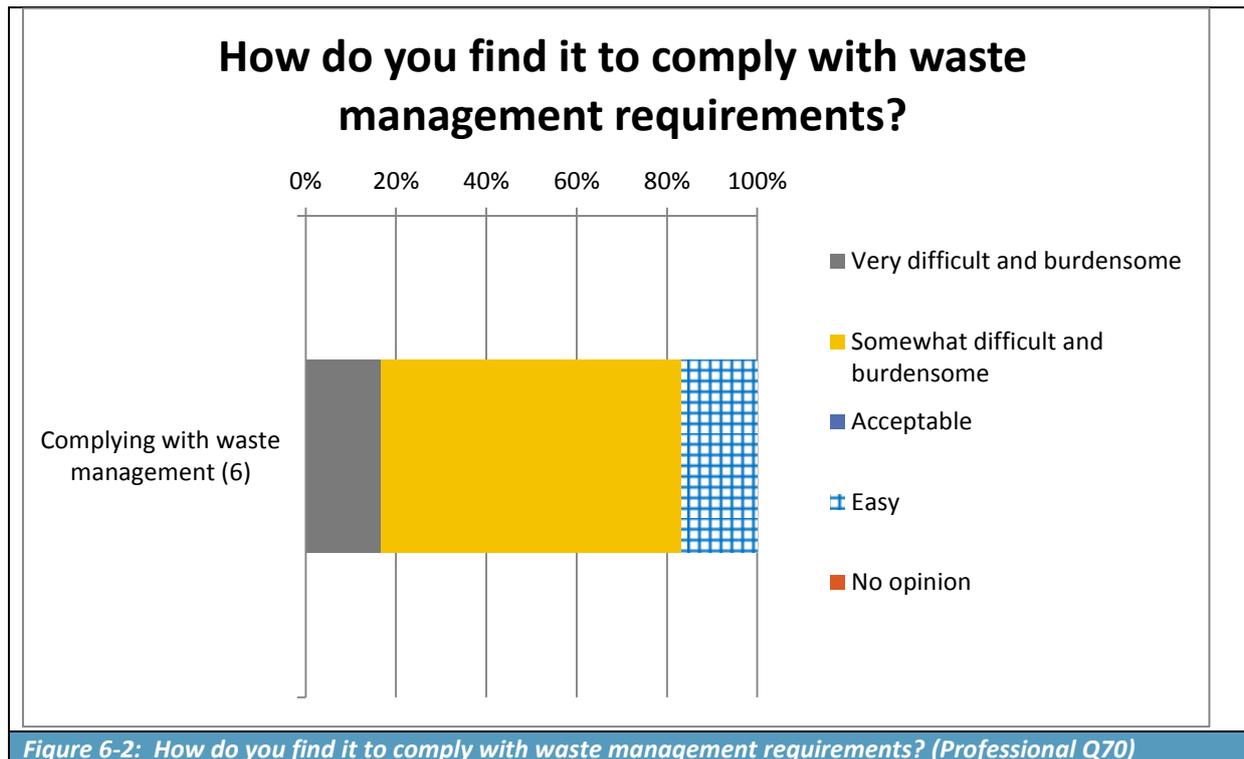


6.2.2 Complying with changes

Respondents' view on complying with waste management requirements is shown in Figure 6-2; only six respondents replied to this question. 67% of respondents find it somewhat difficult and burdensome, with 84% indicating that it is either very or somewhat difficult and burdensome.

There was no significant difference in respondents' view of costs by type or category of respondent.

One respondent comments: "Administrative requirements are burdensome for companies, mainly SMEs, which have to both keep a register and archive waste monitoring slips and other traceability documents. An administrative simplification would be welcome, especially for SMEs and craftsmen."



6.2.3 Extent to which EU legislation on waste has contributed benefits

Respondents' view of the extent to which EU legislation on waste has contributed benefits is shown in Figure 6-3. Over 54% of respondents indicate that four benefits provide a slight benefit:

- Improved corporate image for companies operating in the construction sector
- Reduced environmental impacts
- Improved resource efficiency
- Reduced risks to human health

On the other hand, for "reduced insurance premiums for companies in the construction sector," 50% of respondents believe it has no impact and only 20% see any positive impact.

Again, "reduced legal costs for companies in the construction sector" divides opinion; 27% of respondents believe it has a positive impact, 19% believe it has a negative impact and 31% believe it has no impact at all.

There was no significant difference in respondents' view of costs by type or category of respondent.

One comment stands out:

“The market for recycling of Construction & Demolition Waste into secondary raw materials needs to be further developed. There is often a lack of standards for secondary materials, or sufficient quantity for use in the production of new construction materials. Also, there should be financial or taxation incentives for using recycled materials in the production of new construction products.”

To what extent has EU legislation on waste contributed to the following benefits?

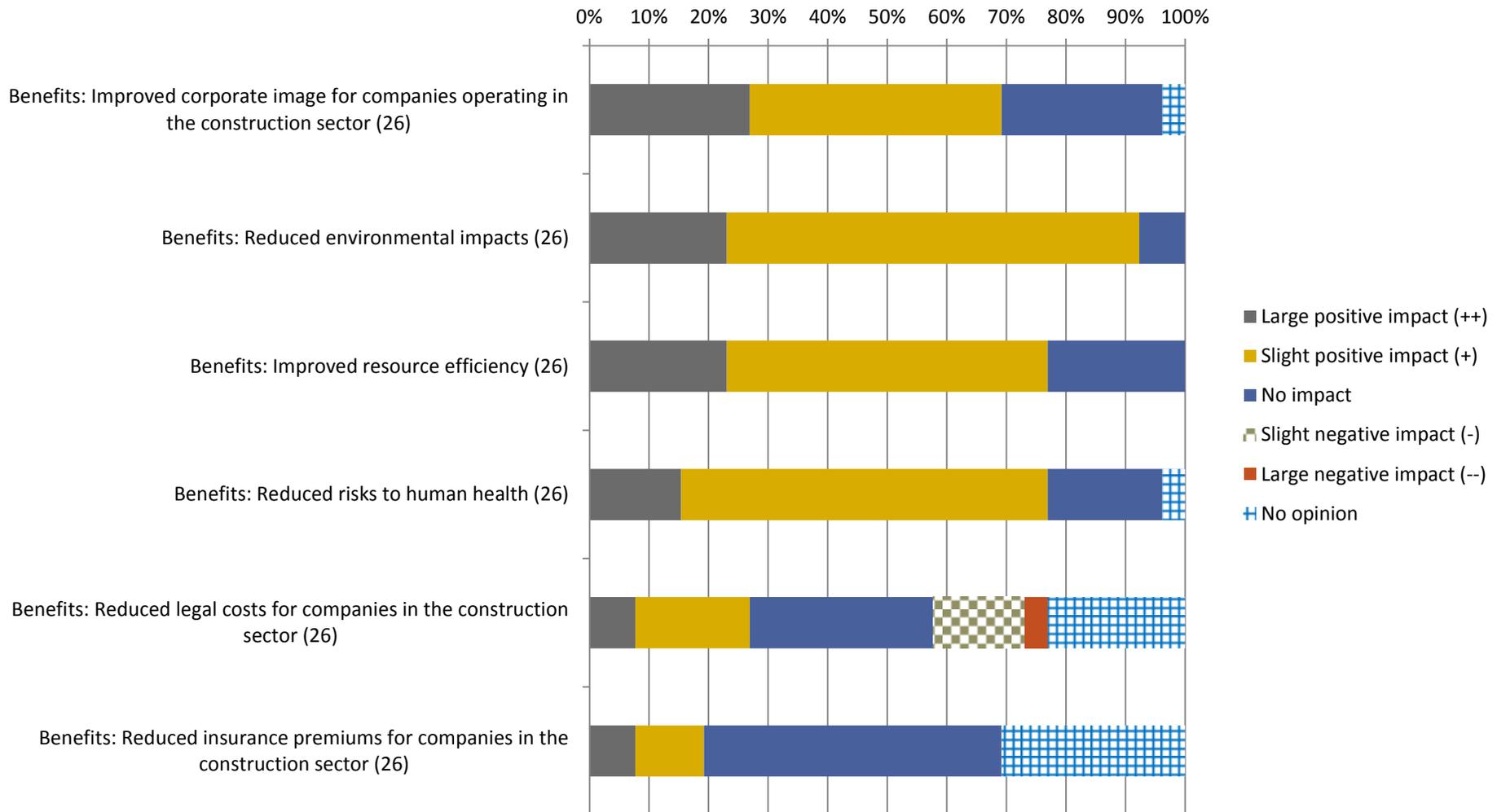


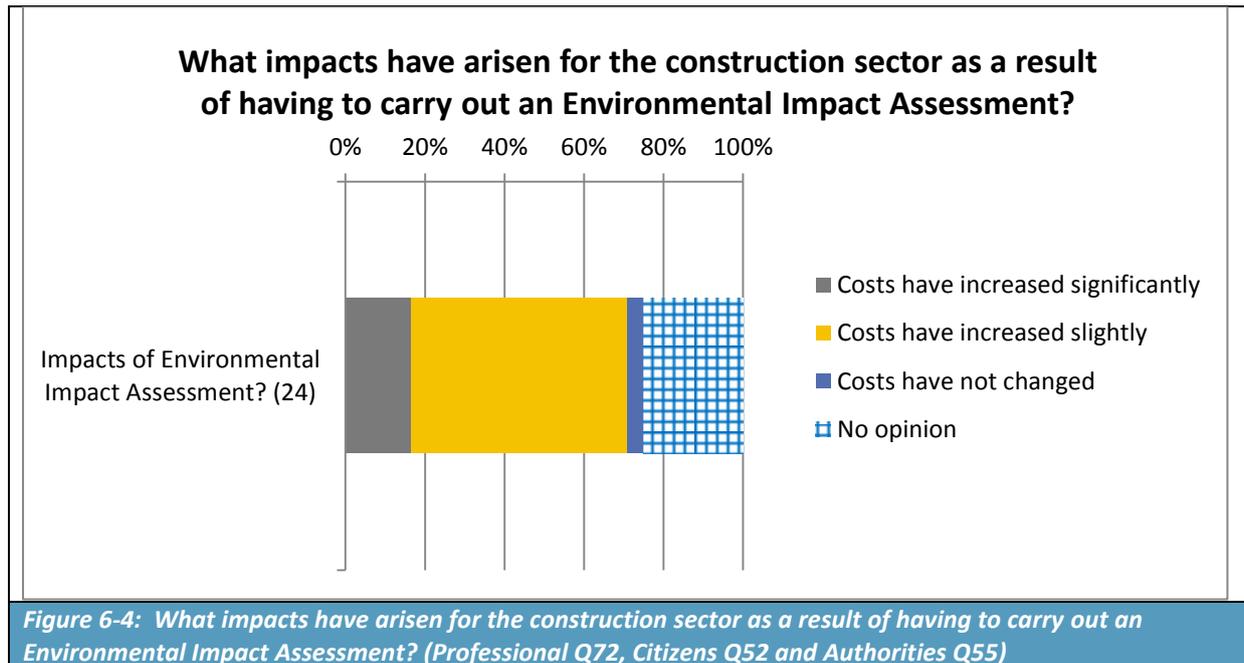
Figure 6-3 To what extent has EU legislation on waste contributed to the following benefits? (Professional Q71, Citizens Q51 and Authorities Q54)

6.3 III.2.b Environmental Impact Assessment Framework Directive (Qns 72-75)

6.3.1 Impacts

Respondents' view of the impact on the construction sector of having to carry out environmental impact assessments is shown in Figure 6-4. 54% of respondents indicated that costs have increased slightly and a total of 71% say that costs have increased significantly or slightly.

There was no significant difference in respondents' view of costs by type or category of respondent.



6.3.2 Criteria and thresholds

Respondents' opinion regarding the criteria and thresholds determining when an Environmental Impact Assessment is required to be carried out is shown in Figure 6-5. Two views stand out:

- 67% think that the "criteria for EIA are about right"
- 63% think that "EIA legislation captures the majority/all of the right projects"

Industry / business associations and workers organisations / associations / trade unions are more likely to agree that the "criteria for EIA are too high".

What is your opinion regarding the criteria and thresholds determining when an Environmental Impact Assessment is required to be carried out?

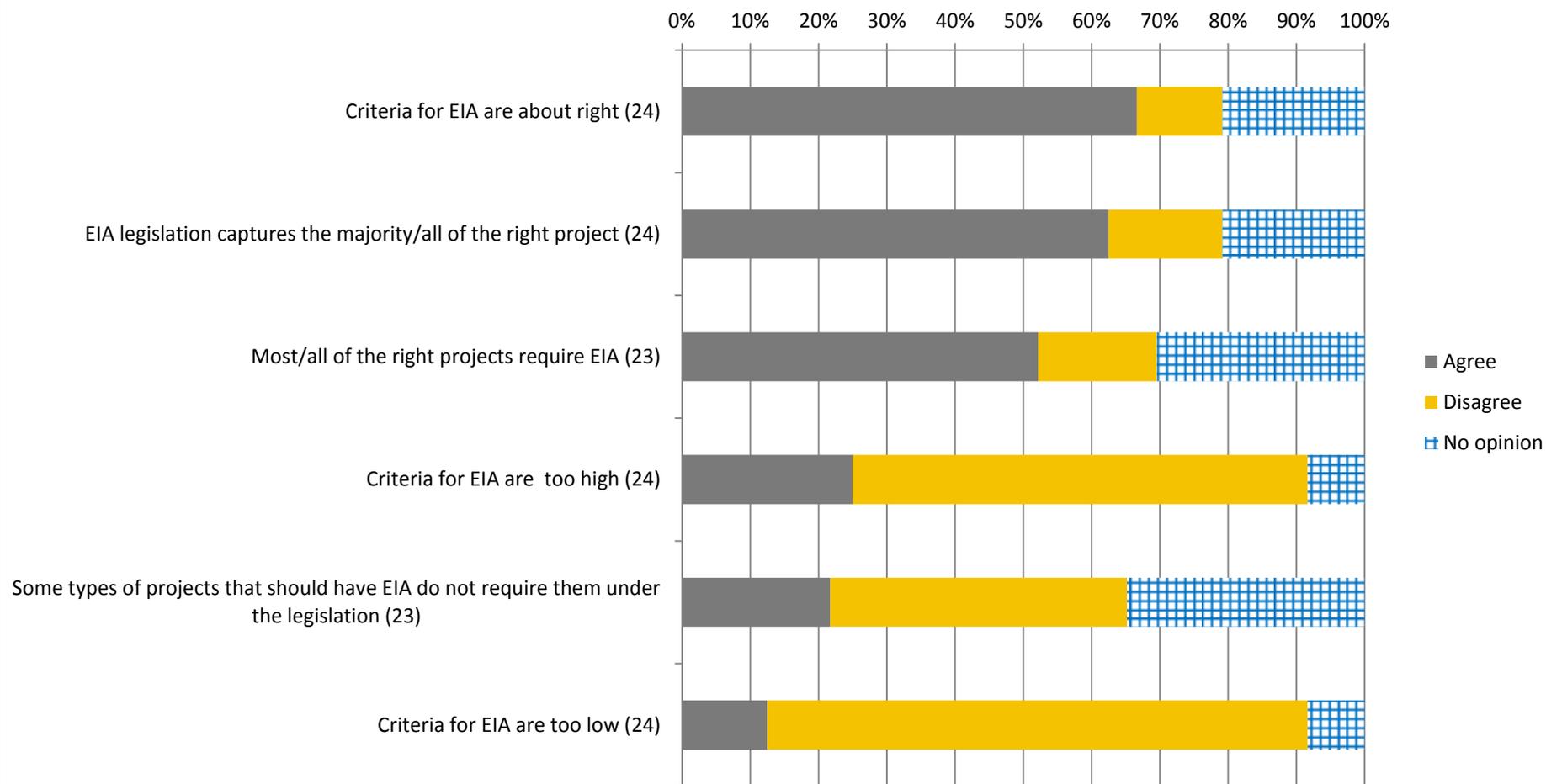
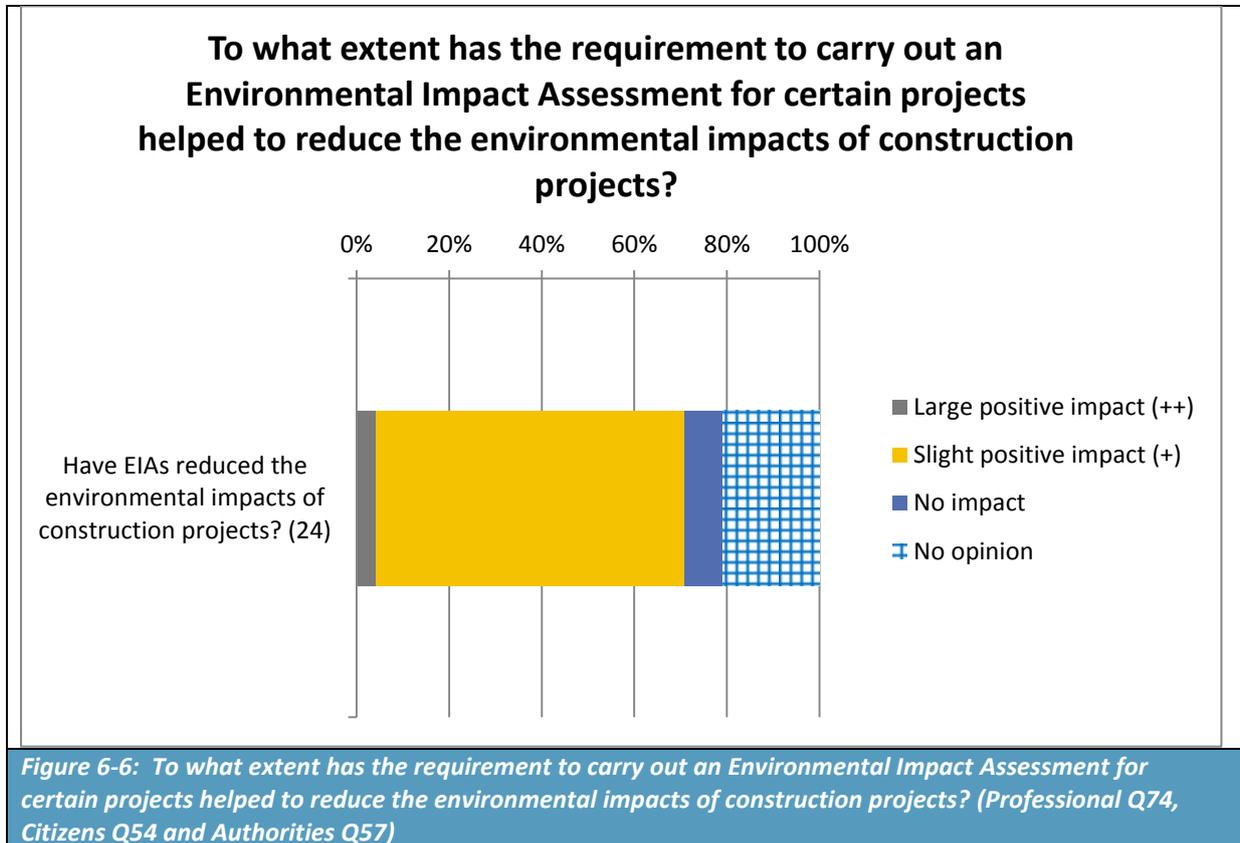


Figure 6-5 What is your opinion regarding the criteria and thresholds determining when an Environmental Impact Assessment is required to be carried out? (Professional Q73, Citizens Q53 and Authorities Q56)

6.3.3 Reducing the environmental impacts of construction projects

Respondents' views on the extent to which the requirement to carry out an Environmental Impact Assessment for certain projects helped to reduce the environmental impacts of construction projects is shown in Figure 6-6. 67% of respondents say that there has been a slight positive impact, 8% say there has been no impact.



7 Analysis of Part III.3 Final questions on environment and health and safety

7.1 Introduction

Part III.3 of the questionnaire covers some final questions on both environment and health and safety. The question numbers throughout refer to the professional questionnaire.

- III.3.a Final questions on health and safety (Qns 76-77)
- III.3.b Final questions on environmental (Qns 78-79)

These are considered in turn below.

7.2 III.3.a Final questions on health and safety (Qns 76-77)

7.2.1 Three statements

The extent to which respondents agree or disagree with three statements about health and safety is shown in Figure 7-1. Nearly 70% or more agree, strongly or slightly with all three statements:

- Workers are protected against the risks posed to their health by exposure to asbestos
- Workers are protected against the risks posed to their health by the manual handling of loads
- Workers are protected against the risks posed to their health on temporary and mobile construction sites

There is some disagreement though. 17% of respondents somewhat disagree with the “asbestos” statement: workers organisations / associations / trade unions are more likely to disagree; industry / business associations are more likely to agree.

20% of respondents strongly or somewhat disagree with the “manual handling” statement and 12% strongly or somewhat disagree with the “temporary and mobile construction” statement.

7.2.2 Have you or your organisation...

Respondents’ replies to several statements about health and safety are shown in Figures 7-2 and 7-3: the issues are displayed together in Figure 7-2 and the benefits in Figure 7-3. Approximately 30% of respondents have seen each of the issues and 40% have not. Approximately 40% have experienced each of the benefits and 30% have not. The only exception is that approximately 10% fewer have experienced the benefit of “identified health and safety requirements that help to support EU (or national) policy in other policy areas.”

Several comments in the free text boxes are relevant as shown in Table 7-1.

Table 7-1: Further comments on health and safety legislation

Have you or your organisation...	Comment
Identified areas within wider EU (or national) policy that are in conflict with EU (or national) health and safety legislation	In France, the gold-plating of the Asbestos directive has led to complex and costly rules which are difficult to fulfill and a rise of undeclared work.
	Some redundancy between REACH and OSH, also lack of harmonised methodology for some assessment (DNEL/OEL). Also some terminology issues between CLP and OSH
Identified health and safety requirements that help to support EU (or national) policy in other policy areas	Manual Handling Directive 90/268/EEC should cover more completely and as a systems approach the prevention of MSDs (musculoskeletal disorders) (Modern Ergonomics Approach Issue not nowadays covered); and psychosocial risks are not involved in the present directives Issue?. In psychosocial matters non-legislative measures are insufficient.
Found concepts, notions, and definitions that are unclear and for which interpretation is difficult	Notion of "dangerous" agent for a substance causing a risk without having intrinsic hazardous properties is confusing
	In the Temporary or Mobile Construction Sites Directive (92/57/EEC) the obligation to have an employee that can provide first-aid raises many questions among construction firms
Identified health and safety requirements that need to be simplified	The transposition of the Temporary or Mobile Construction Sites Directive (92/57/EEC) into Belgian law created many unnecessary complications and administrative burdens on constructions companies, entailing additional costs

Please indicate the extent to which you agree or disagree with the following statements

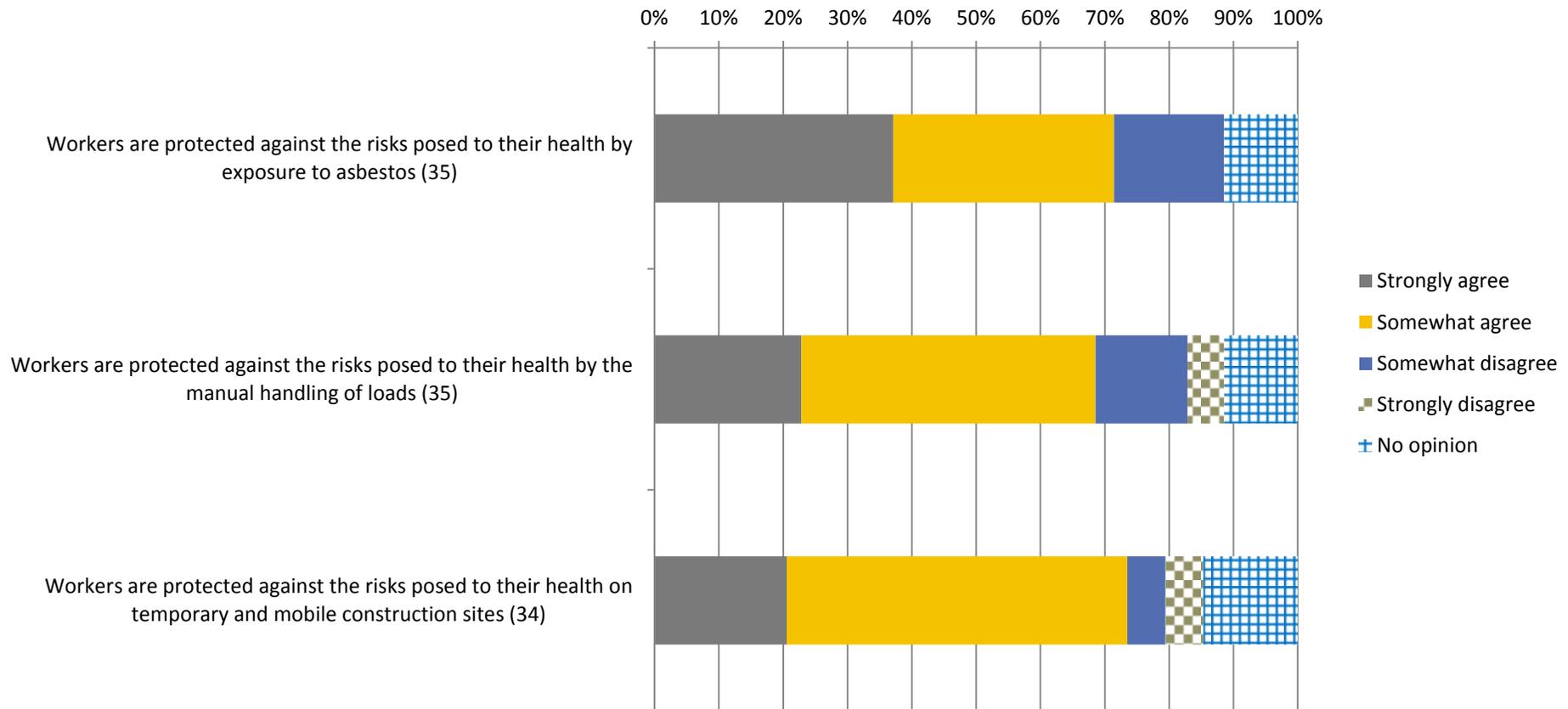


Figure 7-1 Please indicate the extent to which you agree or disagree with the following statements (Professional Q76 (Citizens Q56 and Authorities Q59))

Have you or your organisation ...[seen these issues] relating to the health and safety in the construction sector

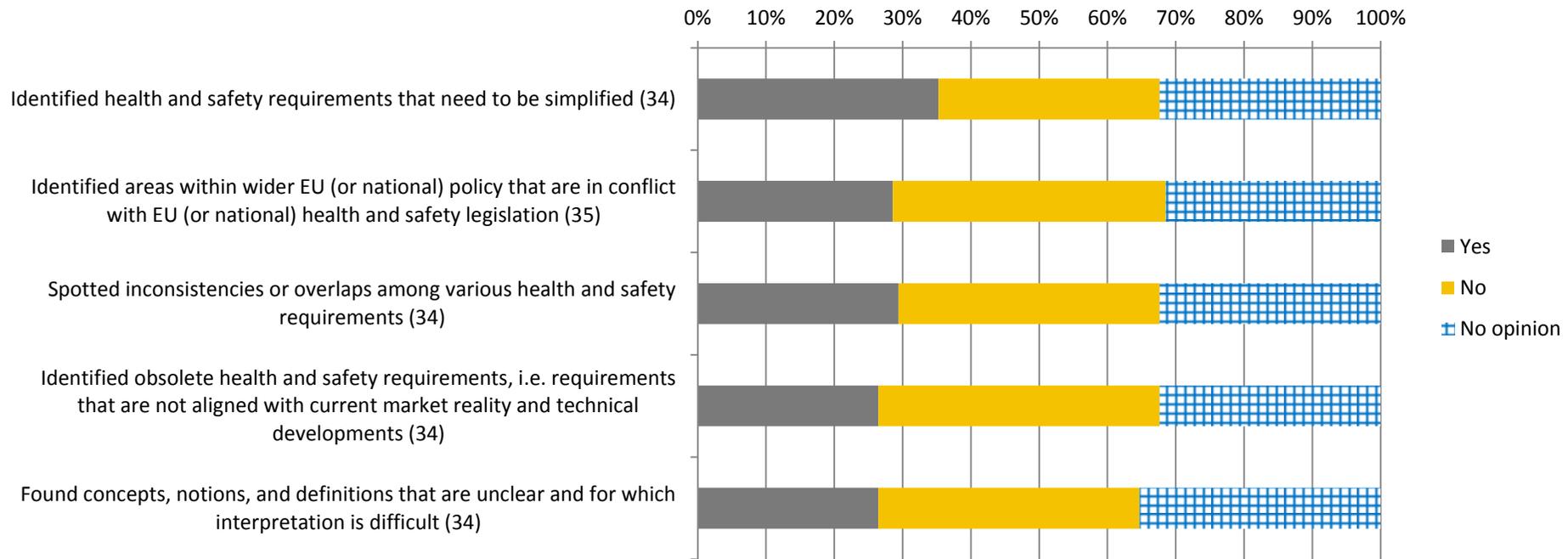


Figure 7-2 Have you or your organisation ...[issues]? (Professional Q77, Citizens Q57 and Authorities Q60)

Have you or your organisation ...[found these benefits] relating to the health and safety in the construction sector

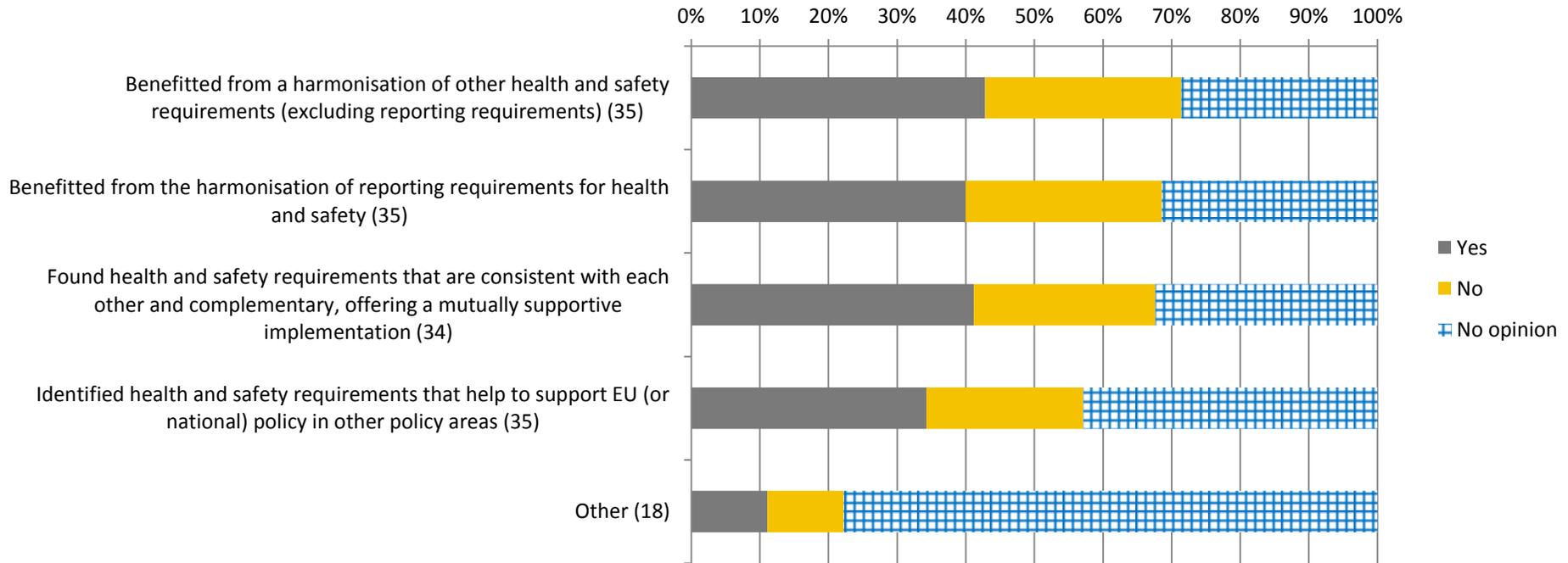
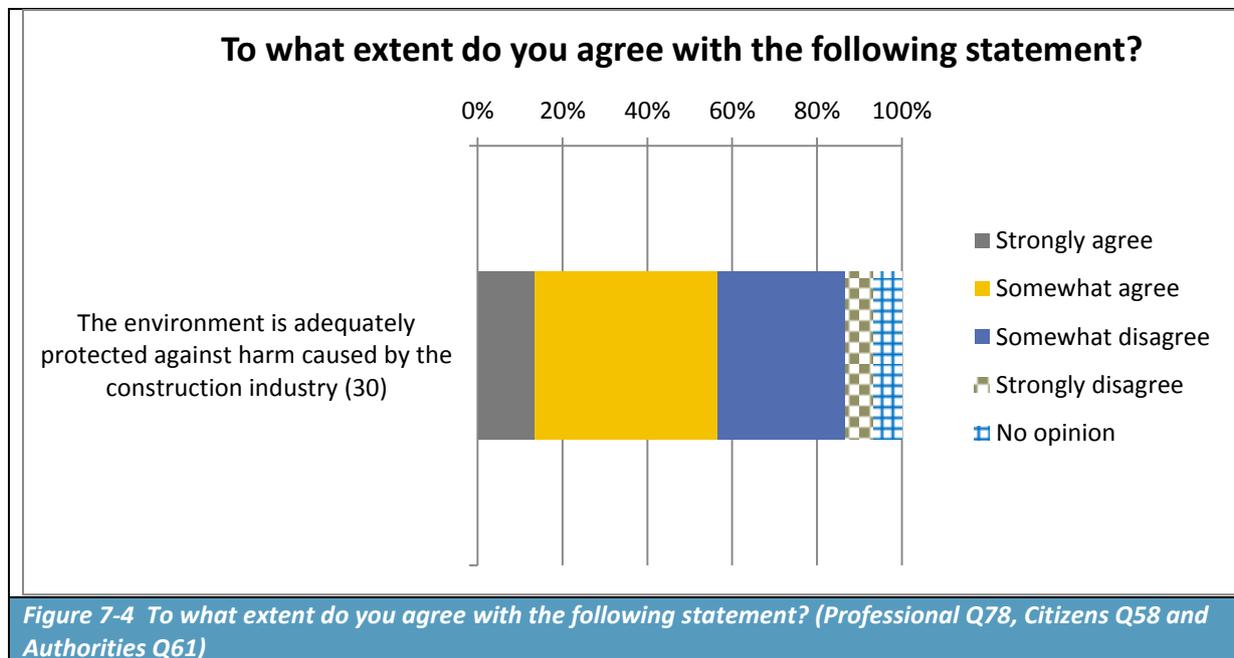


Figure 7-3 Have you or your organisation ...[benefits]? (Professional Q77, Citizens Q57 and Authorities Q60)

7.3 III.3.b Final questions on environmental (Qns 78-79)

Respondents' view on whether the environment is adequately protected against harm caused by the construction industry is shown in Figure 7-4. 43% of respondents somewhat agree, 30% somewhat disagree; overall 60% strongly or somewhat agree and 37% strongly or somewhat disagree.



7.3.1 Have you or your organisation...

Respondents' replies to several statements about environment are shown in Figures 7-5 and 7-6: the issues are displayed together in Figure 7-5 and the benefits in Figure 7-6.

The issue that stands out is "Spotted inconsistencies or overlaps among various environment requirements", which over 50% of respondents say they have seen. One benefit that stands out is "identified requirements that have been designed to protect the environment that also help to support EU (or national) policy in other policy areas", indicated by 46% of respondents.

Several comments in the free text boxes are relevant as shown in Table 7-2.

Table 7-2: Further comments on environment legislation	
Have you or your organisation...	Comment
Benefitted from the harmonisation of environmental reporting requirements	Harmonization is good but given that in Belgium the rules are implemented differently by different regions, such harmonization at European level no benefit.
Identified areas within wider EU (or national) policy that are in conflict with EU (or national) environment legislation	Building trades report, that due to maximum allowable concentrations for certain pollutants in Germany even geogenic polluted soil has to be deposited instead of being back-filled in equally contaminated areas. This results in the use of virgin materials used for backfilling instead of the previously present material. This situation is in conflict with the circular economy goals.

Table 7-2: Further comments on environment legislation

Have you or your organisation...	Comment
Found concepts, notions, and definitions that are unclear and for which interpretation is difficult	The “end of waste” statute is unclear.
Other	The appropriation of new environmental requirements for companies at national level lasts from 6 to 8 years. Thus, it is important to have in mind the necessity to wait before adopting new requirements.

7.4 Any other comments

One additional comment stands out:

“We would like to point out that more has to be done in order to boost the ailing construction sector. Construction rates are still below their 2008 pre-crisis levels while there is a growing lack of affordable housing across EU Member States. EU legislation can provide solutions to this crisis, for example by providing better financial instruments to promote investments into buildings. However, there are also shortcomings when it comes to existing regulation. The sector remains burdened by a very large body of unclear, conflicting or overlapping legislation that prevents rather than encourages innovation and growth.”

Have you or your organisation...[seen these issues] relating to the environment in the construction sector

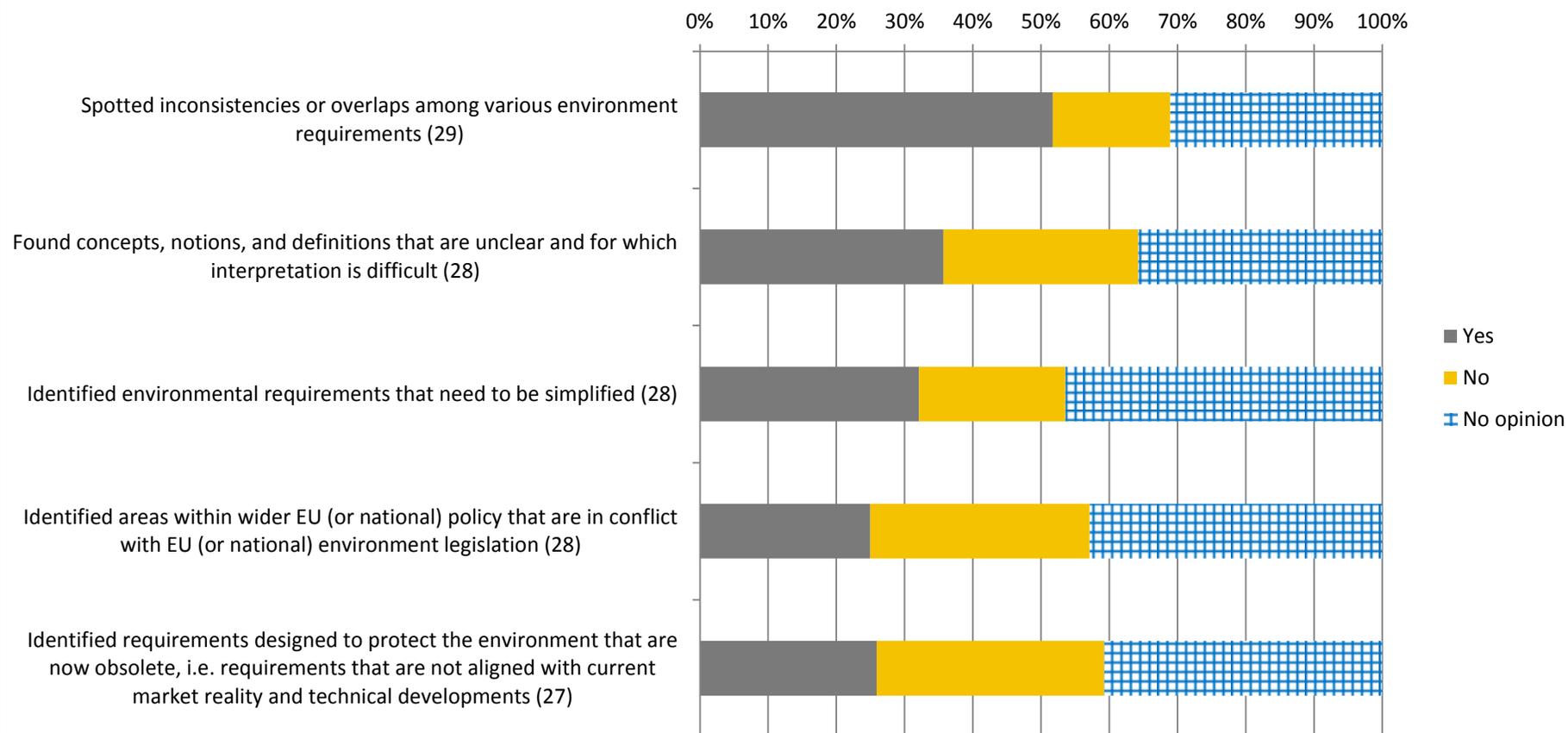


Figure 7-5 Have you or your organisation...[issues] (Professional Q79, Citizens Q59 and Authorities Q62)

Have you or your organisation...[found these benefits] relating to the environment in the construction sector

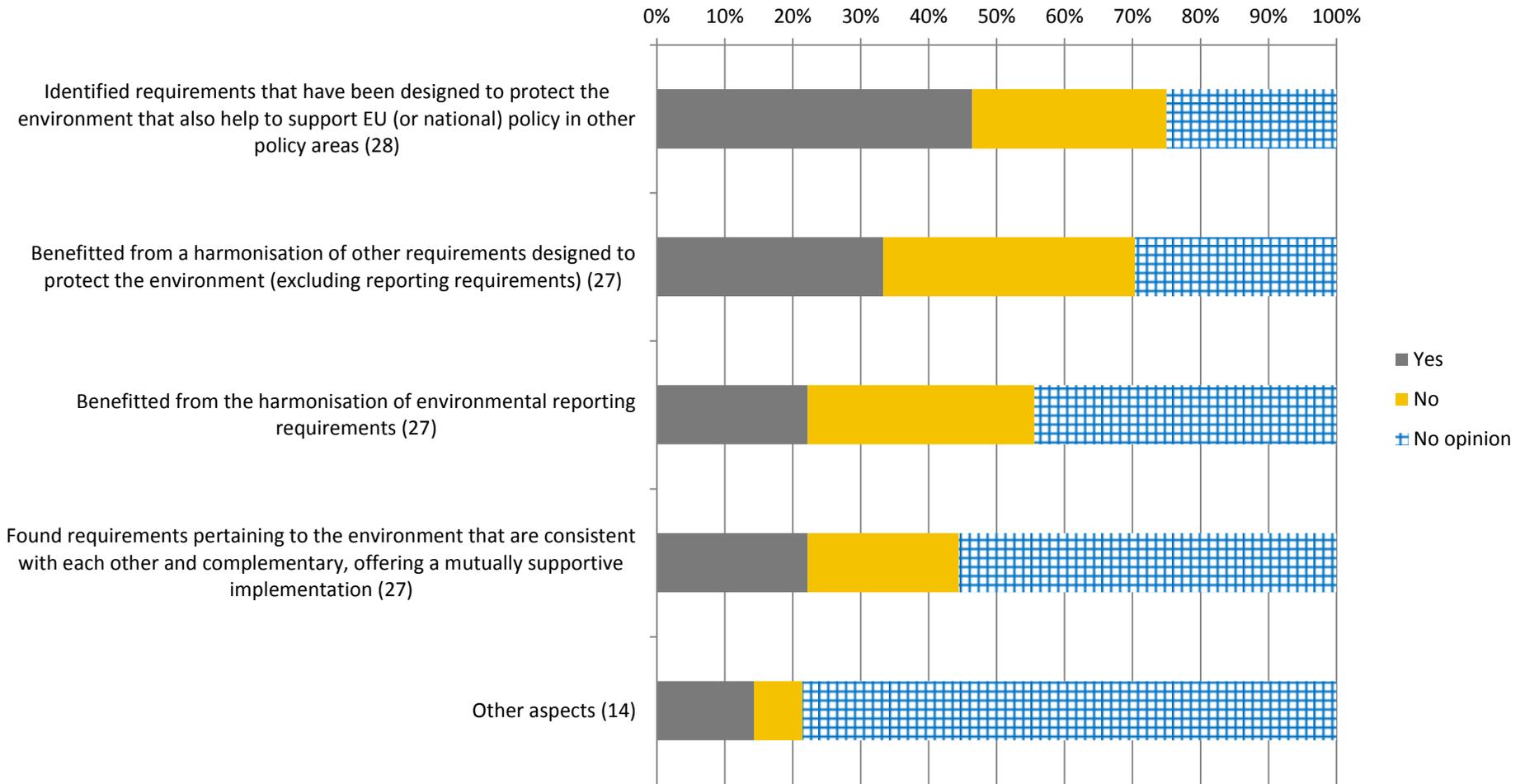


Figure 7-6 Have you or your organisation...[benefits] (Professional Q79, Citizens Q59 and Authorities Q62)

Annex A: Interview Guide for MS Authorities

Annex A: Interview Guide – MS Authorities

Date and time of interview	Date: 00/00/2016 Time (GMT): 00:00
Location of interview	
Name of interviewee	
Position of interviewee	
Organisation	Name: Website (if available):
Contact details of interviewee	Email: Telephone:
Interviewer	

Section A: Basic Information

Q1: Please specify which category best describes the public authority you work for	
	Please tick as appropriate
Central public authority	
Local public authority	
Other (please specify)	

Q2: Does this public authority primarily deal with the construction sector?	
	Please tick as appropriate
Yes	
No	

Q3: Please indicate the principal country of establishment of the public authority you work for?

Section B: OSH Framework Directive

The Occupational Safety and Health Framework Directive (89/391/EEC) sets out general requirements for the protection of the health and safety of workers in the EU. Under the Directive, employers have a “duty to ensure the safety and health of workers in every aspect related to the work” (Article 5(1)) and must “take the measures necessary for the safety and health protection of workers” (Article 6(1)).

Q4: Which of the following obligations have been introduced in COUNTRY X as a direct result of the OSH Directive (i.e. the MS did not already have or plan to introduce the measure)? (please specify the year in which these obligations were introduced and the title of the transposing legislation)

	Year this obligation was first introduced and title of transposing legislation (if possible, please also note the specific provision that transposes this requirement into national law)
Provision of information and training for workers on health and safety	
Carrying out an evaluation of the risks to the health and safety of workers	
Purchasing protective equipment	
Implementing protective organizational measures	
Keeping a list of occupational accidents	
Reporting on occupational accidents	
Employing dedicated health and safety personnel (either in-house or externally)	
Monitoring workers' health	
Consulting with workers about issues relating to safety and health at work	
Taking measures relating to first aid, firefighting and the evacuation of workers	
Other (please specify)	

Q5: In the absence of the OSH Framework Directive, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? Please list the obligations below.

	Please list the relevant obligations in the appropriate box below
Yes – but the associated costs for companies would have been higher	
Yes – and the associated costs for companies would have been the same	
Yes – and the associated costs for companies would have been lower	
No	
Don't know	
If yes, please provide further details of these costs, including quantifying them where possible:	

Q6: To what extent has health and safety legislation implemented (between 2004 and 2014) as a direct result of the OSH Directive contributed to improving the health and safety of construction workers in your country?

Potential benefits	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Improved health and safety of workers						
Please explain your answer, with any examples if possible:						

Q7: Has COUNTRY X introduced any other measures pertaining to worker health and safety over and above those included in the OSH Directive? If so, please specify what these are.

--

Q8: Which of the following measures have had the greatest impact on improving the health and safety of construction workers? (please add any others that are not included in the list)

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Provision of information and training for workers on health and safety						
Carrying out an evaluation of the risks to the health and safety of workers						
Purchasing protective equipment						
Implementing protective organizational measures						
Keeping a list of occupational accidents						
Reporting on occupational accidents						
Employing dedicated health and safety personnel (either in-house or externally)						
Monitoring workers' health						
Consulting with workers about issues relating to safety and health at work						
Taking measures relating to first aid, firefighting and the evacuation of workers						
Other (please specify)						

If possible, please provide specific, quantifiable examples:

For example:

- How many workers are no longer exposed to occupational risks as a result of these health and safety measures being implemented? How has this number changed over the period 2004 to 2014?
- How many days are lost to work-related injuries and ill-health? How has this number changed (between 2004 and 2014) as a result of these health and safety measures being implemented?
- How many occupational accidents were reported to the authorities each year between 2004 and 2014?
- How many dedicated health and safety personnel are employed in the construction sector in Country X? And how has this number changed over the period 2004-2014?
- Are data available on total expenditure on personal protective equipment in the construction sector?

Q9: To what extent has the OSH Framework Directive contributed to the following benefits for businesses in your country?

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
The Directive has helped to level the playing field for companies operating in my country						
The Directive has helped to level the playing field for companies operating throughout the EU						
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)						
The Directive has helped to create an environment within the EU which is conducive to cross-border trade						
Other (please specify)						
Please explain your answer:						

Q10: Have you spotted any inconsistencies or overlaps between the provisions of the OSH Framework Directive and the provisions of other EU health and safety legislation? Is there potential to improve the synergies between the OSH Framework Directive and other EU health and safety legislation? Please explain your answer

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Q11: Have you spotted any inconsistencies or overlaps between the provisions of the OSH Framework Directive and the provisions of EU legislation in any other areas? Is there potential to improve the synergies between the OSH Framework Directive and other EU legislation? Please explain your answer

--

Q12: Does the OSH Framework Directive fit with market reality (e.g. has it kept up with scientific and technical progress, and is it flexible enough to adapt to the broad range in scale and types of construction projects)?

--

Q13: Do you have any impact assessments or other documentation on the OSH Directive (or national transposing legislation) which might identify the benefits and/or costs?

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Section C: Manual handling of loads

Directive 90/269/EEC lays down minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers. Under the Directive, employers

are required to take appropriate organizational measures, or use the appropriate means (in particular mechanical equipment), in order to avoid the need for the manual handling of loads by workers. Where the need for the manual handling of loads by workers cannot be avoided, employers must take the appropriate organizational measures, use the appropriate means or provide workers with such means in order to reduce the risk involved in the manual handling of such loads.

Q14: Which of the following obligations have been introduced as a direct result of the Directive on the Manual Handling of Loads (i.e. the MS did not already have or plan to introduce the measure)? (please specify the year in which these obligations were introduced and the title of the transposing legislation)	
	Year this obligation was first introduced and title of transposing legislation (if possible, please also note the specific provision that transposes this requirement into national law)
Carrying out an assessment of the characteristics of the load, physical effort required, characteristics of the working environment and requirements of the activity in order to make the manual handling of loads as safe and healthy as possible	
Providing indications/information on the weight and centre of gravity of heavy loads	
Providing workers with information and training on the way to handle loads correctly, and the risks if not done correctly	
Consulting with workers (or their representatives) on matters related to the manual handling of loads and worker health and safety	
Purchasing equipment and implementing organizational measures to avoid the need for the manual handling of loads by workers	
Purchasing equipment and implementing organizational measures to reduce the risk involved in the manual handling of loads	
Organising workstations in such a way as to make the manual handling of loads as safe and healthy and possible	
Other (please specify)	

Q15: In the absence of the Directive on the Manual Handling of Loads, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? Please list the obligations below.	
	Please list the relevant obligations in the appropriate box below
Yes – but the associated costs for companies would have been higher	
Yes – and the associated costs for companies would have been the same	
Yes – and the associated costs for companies would have been lower	
No	
Don't know	
If yes, please provide further details of these costs, including quantifying them where possible:	

Q16: To what extent has health and safety legislation implemented (between 2004 and 2014) as a direct result of the Directive on the Manual Handling of Loads contributed to improving the health and safety of construction workers in your country?

Potential benefits	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Improved health and safety of workers						
Please explain your answer, with any examples if possible:						

Q17: Has COUNTRY X introduced any other measures pertaining to worker health and safety over and above those included in the Directive on the Manual Handling of Loads? If so, please specify what these are.

--

Q18: Which of the following measures have had the greatest impact on improving the health and safety of construction workers when manually handling loads? (please add any others that are not included in the list)

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Carrying out an assessment of the characteristics of the load, physical effort required, characteristics of the working environment and requirements of the activity in order to make the manual handling of loads as safe and healthy as possible						
Providing indications/information on the weight and centre of gravity of heavy loads						
Providing workers with information and training on the way to handle loads correctly, and the risks if not done correctly						
Consulting with workers (or their representatives) on matters related to the manual handling of loads and worker health and safety						
Purchasing equipment and implementing organizational measures to avoid the need for the manual handling of loads by workers						
Purchasing equipment and implementing organizational measures to reduce the risk involved in the manual handling of loads						

Organising workstations in such a way as to make the manual handling of loads as safe and healthy and possible						
Other (please specify)						
<p>If possible, please provide specific, quantifiable examples:</p> <p>Can you quantify any of these benefits? For example:</p> <ul style="list-style-type: none"> • How many workers are no longer exposed to occupational risks as a result of these health and safety measures being implemented? How has this number changed over the period 2004 to 2014? • How many days are lost to work-related injuries and ill-health? How has this number changed as a result of these health and safety measures being implemented between 2004 and 2014? • How many workers have back pain/injuries and how this number has changed as a result of these health and safety measures being implemented (between 2004 and 2014)? 						

Q19: To what extent has the Directive on the Manual Handling of Loads contributed to the following benefits for businesses in your country?						
	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
The Directive has helped to level the playing field for companies operating in my country						
The Directive has helped to level the playing field for companies operating throughout the EU						
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)						
The Directive has helped to create an environment within the EU which is conducive to cross-border trade						
Other (please specify)						
Please explain your answer:						

<p>Q20: Does the Directive on the Manual Handling of Loads fit with market reality (e.g. has it kept up with scientific and technical progress, and is it flexible enough to adapt to the broad range in scale and types of construction projects)?</p>

<p>Q21: Have you spotted any inconsistencies or overlaps between the provisions of the Directive on the Manual Handling of Loads and the provisions of other EU health and safety legislation? Is there potential to improve the synergies between the Directive on the Manual Handling of Loads and other EU health and safety legislation? Please explain your answer</p>

Q22: Have you spotted any inconsistencies or overlaps between the provisions of the Directive on the Manual Handling of Loads and the provisions of EU legislation in any other areas? Is there potential to improve the synergies between the Directive and other EU legislation? Please explain your answer

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Q23: Do you have any impact assessments or other documentation on the Directive on the Manual Handling of Loads (or national transposing legislation) which might identify the benefits and/or costs?

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Section D: Temporary or mobile construction sites

Directive 92/57/EEC lays down the minimum safety and health requirements for temporary or mobile construction sites.

Q24: Which of the following obligations have been introduced as a direct result of the Directive on Temporary or Mobile Construction Sites (i.e. the MS did not already have or plan to introduce the measure)? (please specify the year in which these obligations were introduced and the title of the transposing legislation)

	Year this obligation was first introduced and title of transposing legislation (if possible, please also note the specific provision that transposes this requirement into national law)
Appointing one or more coordinators for health and safety matters	
Drawing up a health and safety plan	
Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive ¹	
Other (please specify)	
<p>1 Annex IV of the Directive includes requirements covering stability and solidity; energy distribution installations; emergency routes and exists; fire detection and firefighting; ventilation; exposure to particular risks; temperature; natural and artificial lighting of workstations, rooms and traffic routes on the site; doors and gates; traffic routes – danger areas; loading bays and ramps; freedom of movement at the workstation; first aid; sanitary equipment; rest rooms and/or accommodation areas; pregnant women and nursing mothers; handicapped workers and miscellaneous provisions.</p>	

Q25: In the absence of the Directive on Temporary or Mobile Construction Sites, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? Please list the obligations below.

	Please list the relevant obligations in the appropriate box below
Yes – but the associated costs for companies would have been higher	
Yes – and the associated costs for companies would have been the same	
Yes – and the associated costs for companies would have been lower	
No	
Don't know	
If yes, please provide further details of these costs, including quantifying them where possible:	

Q26: To what extent has health and safety legislation implemented (between 2004 and 2014) as a direct result of the Directive on Temporary or Mobile Construction Sites contributed to improving the health and safety of construction workers in your country?

Potential benefits	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Improved health and safety of workers						
Please explain your answer, with any examples if possible:						

Q27: Has COUNTRY X introduced any other measures pertaining to worker health and safety over and above those included in the Directive on Temporary or Mobile Construction Sites? If so, please specify what these are.

--

Q28: Which of the following measures have had the greatest impact on improving the health and safety of construction workers on temporary and mobile construction sites? (please add any other that are not included in the list)

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Appointing one or more coordinators for health and safety matters						
Drawing up a health and safety plan						
Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive						
Other (please specify)						

If possible, please provide specific, quantifiable examples:

Can you quantify any of these benefits? For example:

- How many workers are no longer exposed to occupational risks as a result of these health and safety measures being implemented? How has this number changed over the period 2004 to 2014?
- How many days are lost to work-related injuries and ill-health? How has this number changed as a result of these health and safety measures being implemented between 2004 and 2014?

Q29: To what extent has the Directive on Temporary or Mobile Construction Sites contributed to the following benefits for businesses in your country?

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
The Directive has helped to level the playing field for companies operating in my country						
The Directive has helped to level the playing field for companies operating throughout the EU						
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)						
The Directive has helped to create an environment within the EU which is conducive to cross-border trade						
Please explain your answer:						

Q30: Does the Directive on Temporary or Mobile Construction Sites fit with market reality (e.g. has it kept up with scientific and technical progress, and is it flexible enough to adapt to the broad range in scale and types of construction projects)?

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Q31: Have you spotted any inconsistencies or overlaps between the provisions of the Directive on Temporary or Mobile Construction Sites and the provisions of other EU health and safety legislation? Is there potential to improve the synergies between the Directive on Temporary or Mobile Construction Sites and other EU health and safety legislation? Please explain your answer

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Q32: Have you spotted any inconsistencies or overlaps between the provisions of the Directive on Temporary or Mobile Construction Sites and the provisions of EU legislation in any other areas? Is there potential to improve the synergies between the Directive and other EU legislation? Please explain your answer

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Q33: Do you have any impact assessments or other documentation on the Directive on Temporary or Mobile Construction Sites (or national transposing legislation) which might identify the benefits and/or costs?

--

Section E: Asbestos Directive

The Asbestos Directive (2009/148/EC) aims to protect workers against risks to their health, including the prevention of such risks, arising or likely to arise from exposure to asbestos.

Q34: Which of the following obligations have been introduced as a direct result of the Asbestos Directive (i.e. the MS did not already have or plan to introduce the measure)? (please specify the year in which these obligations were introduced and the title of the transposing legislation)	
	Year this obligation was first introduced and title of transposing legislation (if possible, please also note the specific provision that transposes this requirement into national law)
Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos	
Provision of information and training to workers who are, or are likely to be, exposed to dust from asbestos	
Consulting with workers (or their representatives) about the risks arising from exposure to asbestos	
Undertaking clinical surveillance of workers	
Submitting a notification to the responsible authority	
Compiling and submitting information to a national register, indicating the nature and duration of the activity and the exposure to which workers have been subjected	
Purchasing and displaying warning signs	
Measuring asbestos fibres in the air at the workplace	
Purchasing respiratory and/or other personal protective equipment to minimize exposure to asbestos	
Purchasing other equipment to minimize exposure to asbestos	
Implementing organizational measures to reduce exposure to asbestos	
Storing, transporting and cleaning materials and equipment contaminated with asbestos dust	
Drawing up a plan of work	
Other (please specify)	

Q35: In the absence of the Asbestos Directive, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? Please list the obligations below.	
	Please list the relevant obligations in the appropriate box below
Yes – but the associated costs for companies would have been higher	
Yes – and the associated costs for companies would have been the same	
Yes – and the associated costs for companies would have been lower	
No	
Don't know	
If yes, please provide further details of these costs, including quantifying them where possible:	

Q36: To what extent has health and safety legislation implemented (between 2004 and 2014) as a direct result of the Asbestos Directive contributed to improving the health and safety of construction workers in your country?

Potential benefits	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Improved health and safety of workers						
Please explain your answer, with any examples if possible:						

Q37: Has COUNTRY X introduced any other measures pertaining to worker health and safety over and above those included in the Asbestos Directive? If so, please specify what these are.

--

Q38: Which of the following measures have had the greatest impact on reducing the health and safety risk to construction workers associated with asbestos? (please add any others that are not included in the list)

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos						
Provision of information and training to workers who are, or are likely to be, exposed to dust from asbestos						
Consulting with workers (or their representatives) about the risks arising from exposure to asbestos						
Undertaking clinical surveillance of workers						
Submitting a notification to the responsible authority						
Compiling and submitting information to a national register, indicating the nature and duration of the activity and the exposure to which workers have been subjected						
Purchasing and displaying warning signs						
Measuring asbestos fibres in the air at the workplace						
Purchasing respiratory and/or other personal protective equipment to minimize exposure to asbestos						
Purchasing other equipment to minimize exposure to asbestos						
Implementing organizational measures to reduce exposure to asbestos						
Storing, transporting and cleaning materials and equipment contaminated with asbestos dust						
Drawing up a plan of work						
Other (please specify)						

Can you quantify any of these benefits? For example:

- How many workers are no longer exposed to occupational risks as a result of these health and safety measures being implemented? How has this number changed over the period 2004 to 2014?
- How many days are lost to work-related injuries and ill-health? How has this number changed as a result of these health and safety measures being implemented between 2004 and 2014?

Q39: To what extent has the Asbestos Directive contributed to the following benefits for businesses in your country?

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
The Directive has helped to level the playing field for companies operating in my country						
The Directive has helped to level the playing field for companies operating throughout the EU						
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)						
The Directive has helped to create an environment within the EU which is conducive to cross-border trade						
Please explain your answer:						

Q40: Does the Asbestos Directive fit with market reality (e.g. has it kept up with scientific and technical progress, and is it flexible enough to adapt to the broad range in scale and types of construction projects)?

--

Q41: Have you spotted any inconsistencies or overlaps between the provisions of the Asbestos Directive and the provisions of other EU health and safety legislation? Is there potential to improve the synergies between the Asbestos Directive and other EU health and safety legislation? Please explain your answer

--

Q42: Have you spotted any inconsistencies or overlaps between the provisions of the Asbestos Directive and the provisions of EU legislation in any other areas? Is there potential to improve the synergies between the Directive and other EU legislation? Please explain your answer

--

Q43: Do you have any impact assessments or other documentation on the Asbestos Directive (or national transposing legislation) which might identify the benefits and/or costs?

--

Section F: Waste Framework Directive

The Waste Framework Directive (2008/98/EC) applies the “polluter pays principle” by requiring that the cost of waste management be borne by the original waste producer or by the current or previous waste holders. It also allows European Member States to take measures to ensure that any company that professionally develops, manufactures, processes, treats, sells or imports products has “extended producer responsibility”. Such measures may include an acceptance of returned products and of the waste that remains after those products have been used, as well as the subsequent management of the waste and financial responsibility for such activities.

Q44: Are you aware of any data on the volume of construction waste arising in your country? If so, please can you provide this data (or a link to it online)? (if possible, please provide data over the period 2004-2014 and for separate waste streams)

--

Q45: What obligations has Country X put in place to ensure that hazardous waste undergoes recovery operations and does not endanger human health or harm the environment?

--

Q46: In the absence of the Waste Framework Directive, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? Please list the obligations below.

	Please list the relevant obligations from the Directive in the appropriate box below
Yes – but the associated costs for companies would have been higher	
Yes – and the associated costs for companies would have been the same	
Yes – and the associated costs for companies would have been lower	
No	
Don't know	
If yes, please provide further details of these costs, including quantifying them where possible:	

Q47: The Waste Framework Directive requires that where “technically, environmentally and economically practicable,” waste should be separated and not mixed with other waste or other material with different properties. Furthermore, Member States should “encourage the separation of hazardous compounds from waste streams if necessary to achieve environmentally sound management”. What rules has Country X put in place to ensure the separate collection of construction waste?

--

Q48: How is the concept of “technically, environmentally and economically practicable” interpreted in your country?

--

Q49: What impacts (costs/benefits) have arisen (for companies in the construction sector) as a result of the way in which “technically, environmentally and economically practicable” has been interpreted in your country?

--

Q50: Has COUNTRY X introduced any other measures pertaining to the management of waste over and above those included in the Waste Framework Directive? If so, please specify what these are.

--

Q51: Are you aware of any data on the costs incurred by companies (in the construction sector) for dealing with their waste (over the period 2004 to 2014)?

	Tick as appropriate
Yes	
No	
Don't know	
If yes, please provide further details of these costs (or a link to an online source of data):	

Q52: Do the costs associated with the management of waste have a disproportionate impact on any specific groups of companies (e.g. SMEs)?

	Tick as appropriate
Yes	
No	
Don't know	
Why do these costs arise and what makes them disproportionate? Please explain:	

Q53: Are the terms and definitions provided in the Waste Framework Directive (particularly in Article 3) consistent with similar terms/definitions provided in other legislation at EU level or in your Member State? If not, please explain where these inconsistencies arise and what the impacts (benefits/costs) have been for the construction sector?

--

Q54: Are there any terms or concepts in the Waste Framework Directive which are unclear or for which interpretation is difficult?

--

Q55: Have any guidance documents to clarify these terms/concepts been published in your Member State?

--

Q56: Have you spotted any inconsistencies or overlaps between the provisions of the Waste Framework Directive and the provisions of other EU environment legislation?

--

Q57: Have you spotted any inconsistencies or overlaps between the provisions of the Waste Framework Directive and the provisions of EU legislation in any other areas? Is there potential to improve the synergies between the Directive and other EU legislation? Please explain your answer

--

Q58: Is there potential to improve the synergies between the Waste Framework Directive and other EU environmental legislation? Please explain your answer

--

Q59: To what extent has the Waste Framework Directive contributed to the following benefits for businesses in your country?

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
The Directive has improved the image of the construction sector						
The Directive has enhanced social acceptance of construction projects						
The Directive has helped companies to realise their Corporate Social Responsibility goals						
The Directive has helped to level the playing field for companies operating in my country						
The Directive has helped to level the playing field for companies operating throughout the EU						
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)						
The Directive has helped to create an environment within the EU which is conducive to cross-border trade						
The implementation of the Directive has created jobs (if possible, please provide an estimate of the number of jobs below)						
Please explain your answer:						

Q60: Does the Waste Framework Directive fit with market reality (e.g. has it kept up with scientific and technical progress, and is it flexible enough to adapt to the broad range in scale and types of construction projects)?

--

Q61: Do you have any impact assessments or other documentation on the Waste Framework Directive (or national transposing legislation) which might identify the benefits and/or costs?

--

Section G: Environmental Impact Assessment Directive

The Environmental Impact Assessment Directive (2011/92/EU) states that consent for public and private projects (listed in Annexes I and II of the Directive) which are likely to have “significant effects” on the environment should be granted only after an assessment of the likely significant environmental effects of those projects has been carried out. Projects listed in Annex I are made subject to an EIA; for projects listed at Annex II, MS determine whether an EIA is needed (through a process called screening). In [Country XXX] there are specific procedures in place to determine whether a project should be subject to an EIA, as well as how the EIA or the screening will take place. The assessment required by the EIA Directive should not be confused with assessments required by other pieces of EU legislation (e.g. the Habitats Directive or the Industrial Emissions Directive) or national law.

More information is available at <http://ec.europa.eu/environment/eia/review.htm>

Q62: Are data available on the number of EIAs completed in COUNTRY X between 2004 and 2014? If yes, please provide these data and/or a link to an online source

--

Q63: What are the additional requirements of EU legislation over and above those that Country X had already introduced/had planned to introduce? What additional costs do these bring for companies? What additional benefits to they bring?

--

Q64: Has COUNTRY X introduced any measures pertaining to EIA for construction projects over and above those included in the EIA Directive? If so, please specify what these are.

--

Q65: In the absence of the EIA Directive, do you think COUNTRY X would have implemented similar obligations (e.g. did the authorities already have plans) and would the associated costs for companies have been higher or lower? Please list the obligations in the appropriate box below

	Please put the relevant obligations in the appropriate box below
Yes – but the associated costs for companies would have been higher	
Yes – and the associated costs for companies would have been the same	
Yes – and the associated costs for companies would have been lower	
No	
Don't know	
If yes, please provide further details of these costs, including quantifying them where possible:	

Q66: Are you aware of any costs that have arisen for the construction sector as a result of having to carry out an EIA?

	Tick as appropriate
Yes	
No	

If yes, please describe these costs:

- For what types of projects is it required to carry out an EIA (please refer to Annexes I and II of the EIA Directive)
- Approximately how much does it cost to complete an EIA for an individual construction project? Please indicate:
 - % of the EIA costs compared to the costs of the project
 - what types of costs are covered
- How many of these EIAs are completed annually in your country?
- How have these costs changed over the period 2004 to 2014? (What were the costs in 2004, what were they in 2014)
- Do these costs have a disproportionate impact on any specific groups of companies? (e.g. companies carrying out residential/commercial developments on greenfield/brownfield sites)
- Are the costs of compliance significant compared to the total costs of the project?
 - If yes, please explain why (including some indications on what you consider as a reasonable cost)
 - If no, Please explain why (including any measures taken to reduce them)
- Are SMEs faced with any specific problems or challenges in complying with the legislative requirement to carry out an EIA?

Q67: How long does it take to complete an EIA? Has the amount of time it takes to complete an EIA changed over the period 2004 to 2014? If so, why?

Q68: To what extent have the following benefits been realised as a result of the EIA Directive?

Potential benefits	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (-)	Don't know
Reduced environmental impacts						
Improved image of the construction sector						
Enhanced social acceptance of construction projects						
Improved project design						
Earlier identification and integration of mitigation measures into project design						
Cost and resource savings for the construction industry						
Job creation (if possible, please estimate the number of jobs below)						
Other (please specify)						
Please explain you answer with specific, quantifiable examples where possible						

Q69: To what extent are existing assessment and permitting procedures required by other Directives (e.g. SEA Directive, Habitats and Birds Directives, Industrial Emissions Directive, Water Framework Directive, etc.) coordinated with the requirements of the EIA Directive? Is there potential to improve the synergies between the EIA Directive and other EU environmental legislation? Could the existing processes be better coordinated and/or simplified?

--

Q70: By introducing minimum requirements, the EIA Directive aimed to increase the degree of harmonisation of national laws in relation to:

- the types of project which should be subject to an EIA;
- the main obligations for developers;
- the content of the EIA report; and
- the participation of competent environmental authorities and the public.

To what extent has the EIA Directive contributed to the following benefits for businesses in your country?

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	Don't know
The Directive has helped to level the playing field for companies operating in my country						
The Directive has helped to level the playing field for companies operating throughout the EU						
The Directive has made it easier to identify the rules in place in other Member States of the EU (i.e. it has enhanced legal certainty)						
The Directive has helped to create an environment within the EU which is conducive to cross-border trade						
Please explain your answer:						

Q71: Does the EIA Directive fit with market reality (e.g. has it kept up with scientific and technical progress, and is it flexible enough to adapt to the broad range in scale and types of construction projects)?

--

Q72: Do you have any impact assessments or other documentation on the Environmental Impact Assessment Directive (or national transposing legislation) which might identify the benefits and/or costs?

--

Section H: Concluding questions

Health and safety

Q73: Are you aware of any obsolete measures in the health and safety legislation pertaining to the construction sector (at EU or Member State level)?	
	Tick as appropriate
Yes	
No	
If yes, please explain what these obsolete measures are and what impacts have arisen as a result:	

Q74: Are you aware of any gaps in the health and safety legislation pertaining to the construction sector (at EU or Member State level)?	
	Tick as appropriate
Yes	
No	
If yes, please explain what these gaps are and what impacts have arisen as a result:	

Q75: Are you aware of any overlaps or synergies between the health and safety legislation pertaining to the construction sector? Please explain your answer	

Q76: Could EU legislation meet its objectives in terms of worker health and safety in a different way that deals better with the needs and challenges of the construction sector? If so, please explain how.	
	Tick as appropriate
Yes	
No	
Don't know	
If yes, please explain how:	

Environment

Q77: Are you aware of any obsolete measures in the legislation pertaining to the environment?	
	Tick as appropriate
Yes	
No	
If yes, please explain what these obsolete measures are and what impacts have arisen as a result:	

Q78: Are you aware of any gaps in the legislation pertaining to the environment?	
	Tick as appropriate
Yes	
No	

If yes, please explain what these gaps are and what impacts have arisen as a result:

Q79: Are you aware of any overlaps or synergies between the environment legislation pertaining to the construction sector? Please explain your answer

Q80: Could EU legislation meet its objectives in terms of the environment in a different way that deals better with the needs and challenges of the construction sector? If so, please explain how:

	Tick as appropriate
Yes	
No	
Don't know	

If yes, please explain your answer:

Final questions

Q81: Are SMEs faced with any specific problems or challenges in complying with the legislative requirements pertaining to the construction sector? Do these problems/challenges arise as a result of EU legislation, or as a result of the way the legislation has been implemented at a national level?

	Tick as appropriate
Yes – EU legislation is causing problems/challenges for SMEs	
Yes – National legislation is causing problems/challenges for SMEs	
No	
Don't know	

If yes, please describe:

Q82: Would you agree that the different pieces of EU legislation complement each other and work together to provide a clear and predictable regulatory framework (i.e. legislation is coherent)?

	Tick as appropriate
Yes	
No	
Don't know	

If possible, please explain your answer:

Q83: To what extent has EU legislation in the areas of environment and health and safety contributed to achieving a competitive and sustainable construction sector?

	Tick as appropriate
Large positive impact (++)	
Moderate positive impact (+)	
No impact (+/-)	
Moderate negative impact (-)	
Large negative impact (--)	
Don't know	

If negative, what obstacles prevent a competitive and sustainable construction sector from being achieved and how could they be overcome?

Q84: What has been the effect of EU health and safety and environment legislation on the global competitive position of EU companies operating in the construction sector?

It has had a <u>positive impact</u> on their position in the wider global market	It has <u>not had any impact</u> on their position in the wider global market	It has had a <u>negative impact</u> on their position in the wider global market
--	---	--

If possible, please explain your answer:		

Q85: Does the identified EU legislation provide added value to enterprises, in particular SMEs, compared to national legislation alone?

	Tick as appropriate
Yes	
No	
Don't know	

If yes, please try to provide specific examples:

Q86: Is there a need for continued action at the EU level to address the needs and challenges (in terms of health and safety and the environment) faced by the construction sector?

	Tick as appropriate
Yes	
No	
Don't know	

If yes, please explain your answer:

Annex B: OPC Questionnaire for Professionals

Open public consultation as part of the Fitness Check for the Construction Sector

Questionnaire for professionals in the construction sector / respondents answering on behalf of an organisation, institution or company

I. Information about the construction sector professionals or organisation/institution/company

....

II. Questionnaire on Internal market and energy efficiency

....

III. Questionnaire on environment and health & safety

III.1. Questions on EU legislation related to occupational health and safety in the construction sector

44. Do you wish to respond to questions on the health and safety of construction workers?*

- | |
|--------|
| a. Yes |
| b. No |

III.1.a. Occupational Safety and Health Framework Directive

The Occupational Safety and Health Framework Directive (89/391/EEC) sets out general requirements **for the protection of the health and safety of workers** in the EU. Under the Directive, employers have a “duty to ensure the safety and health of workers in every aspect related to the work” (Article 5(1)) and must “take the measures necessary for the safety and health protection of workers” (Article 6(1)).

Further information is available via the following link: <https://osha.europa.eu/en/legislation/directives/the-osh-framework-directive/1>

45. Are you answering on behalf of a company?

- | |
|--------|
| a. Yes |
| b. No |

46. Please indicate the extent of any costs incurred by your company as a result of the following health and safety measures?*

	Significant costs	Moderate costs	No costs	No opinion
Provision of information and training for workers on health and safety				
Carrying out an evaluation of the risks to the health and safety of workers				
Purchasing Personal Protective Equipment				
Implementing protective organisational measures				
Reporting on occupational accidents				
Employing dedicated health and safety personnel (either in-house or externally)				
Monitoring workers' health				
Other (please specify)				

Please explain your reply.

47. Please indicate the extent of any benefits that have arisen for your company as a result of the following health and safety measures?*

	Significant benefits	Moderate benefits	No benefits	No opinion
Provision of information and training for workers on health and safety				
Carrying out an evaluation of the risks to the health and safety of workers				
Purchasing Personal Protective Equipment				
Implementing protective organisational measures				
Reporting on occupational accidents				
Employing dedicated health and safety personnel (either in-house or externally)				
Monitoring workers' health				
Other (please specify)				

Please explain your reply.

48. Repeat of 46 for non-company respondents

49. Repeat of 47 for non-company respondents

50. To what extent has the Occupational Safety and Health Framework Directive (89/391/EEC) contributed to the following benefits?*

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	No opinion
Reduced risks to workers' health and safety						
Fewer work days lost to work related injuries and ill-health						
Increased productivity in the construction sector						
Increased employee retention in the construction sector						
Reduced insurance premiums for companies in the construction sector						
Reduced legal costs for companies in the construction sector						

Please explain your reply.

III.1.b. Manual handling of loads

Directive 90/269/EEC lays down minimum health and safety requirements for the manual handling of loads where there is a particular risk of back injury to workers. Under the Directive, employers are required to take appropriate organisational measures, or use the appropriate means (in particular mechanical equipment), in order to avoid the need for the manual handling of loads by workers. Where the need for the manual handling of loads by workers cannot be avoided, employers must take the appropriate organisational measures, use the appropriate means or provide workers with such means in order to reduce the risk involved in the manual handling of such loads.

Further information is available via the following link: <https://osha.europa.eu/en/legislation/directives/6>

51. Please indicate the extent of any costs incurred by your company as a result of the following measures designed to reduce the risks associated with the manual handling of loads by workers.*

	Significant costs	Moderate costs	No costs	No opinion
Purchasing mechanical equipment to avoid the need for manual handling of loads by workers				
Implementing organisational measures to reduce the risk involved in the manual handling of loads				
Providing information on the weight and centre of gravity of heavy loads				
Providing training on the correct way to handle loads				
Other (please specify)				

Please explain your reply.

52. Please indicate the extent of any benefits that have arisen for your company as a result of the following measures designed to reduce the risks associated with the manual handling of loads by workers.*

	Significant benefits	Moderate benefits	No benefits	No opinion
Purchasing mechanical equipment to avoid the need for manual handling of loads by workers				
Implementing organisational measures to reduce the risk involved in the manual handling of loads				
Providing information on the weight and centre of gravity of heavy loads				
Providing training on the correct way to handle loads				
Other (please specify)				

Please explain your reply.

53. Repeat of 51 for non-company respondents

54. Repeat of 52 for non-company respondents

55. To what extent has Directive 90/269/EEC on the manual handling of loads contributed to the following benefits?*

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	No opinion
Reduced risks to workers' health and safety						
Fewer work days lost to work related injuries and ill-health						
Increased productivity in the construction sector						
Increased employee retention in the construction sector						
Reduced insurance premiums for companies in the construction sector						
Reduced legal costs for companies in the construction sector						

Please explain your reply.

III.1.c. Temporary or mobile construction sites

Directive 92/57/EEC lays down the minimum safety and health requirements for temporary or mobile construction sites (defined in Article 2(a) of the Directive as “any construction site at which building or civil engineering works are carried out”).

Further information is available via the following link: <https://osha.europa.eu/en/legislation/directives/15>

56. Please indicate the extent of any costs incurred by your company as a result of the following health and safety measures on temporary or mobile construction sites.*

	Significant costs	Moderate costs	No costs	No opinion
Appointing one or more coordinators for health and safety matters				
Drawing up a safety and health plan				
Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive				
Other (please specify)				

Please explain your reply.

57. Please indicate the extent of any benefits that have arisen for your company as a result of the following health and safety measures on temporary or mobile construction sites*.

	Significant benefits	Moderate benefits	No benefits	No opinion
Appointing one or more coordinators for health and safety matters				
Drawing up a safety and health plan				
Complying with the minimum safety and health requirements for construction sites set out in Annex IV to the Directive				
Other (please specify)				

Please explain your reply.

58. Repeat of 56 for non-company respondents

59. Repeat of 57 for non-company respondents

60. To what extent has Directive 92/57/EEC on the minimum safety and health requirements for temporary or mobile construction sites contributed to the following benefits?*

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	No opinion
Reduced risks to workers' health and safety						
Fewer work days lost to work related injuries and ill-health						
Increased productivity in the construction sector						
Increased employee retention in the construction sector						
Reduced insurance premiums for companies in the construction sector						
Reduced legal costs for companies in the construction sector						

Please explain your reply.

III.1.c. Asbestos Directive

The Asbestos Directive (2009/148/EC) aims to protect workers against risks to their health, including the prevention of such risks, arising or likely to arise from exposure to asbestos.

Further information is available via the following link: <https://osha.europa.eu/en/legislation/directives/2009-148-ec-exposure-to-asbestos-at-work>

61. Please indicate the extent of any costs incurred by your company as a result of the following measures designed to reduce the risks to workers associated with asbestos.*

	Significant costs	Moderate costs	No costs	No opinion
Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos				
Undertaking clinical surveillance of workers				
Compiling and submitting information to the national register, indicating the nature and duration of the activity and the exposure to which workers have been subjected				
Purchasing and displaying warning signs				
Training of workers who are, or are likely to be, exposed to dust from asbestos				
Submitting a notification to the responsible authority				
Measuring asbestos fibres in the air at the workplace				
Purchasing respiratory and/or other personal protective equipment				
Purchasing other equipment to minimize exposure to dust arising from asbestos				
Implementing organizational measures				
Storing, transporting and cleaning materials and equipment contaminated with asbestos dust				
Drawing up a plan of work				
Other (please specify)				

Please explain your reply.

62. Please indicate the extent of any benefits that have arisen for your company as a result of the following measures designed to reduce the risks to workers associated with asbestos.*

	Significant benefits	Moderate benefits	No benefits	No opinion
Undertaking a risk assessment in cases where an activity is likely to involve a risk of exposure to asbestos				
Undertaking clinical surveillance of workers				
Compiling and submitting information to the national register, indicating the nature and duration of the activity and the exposure to which workers have been subjected				
Purchasing and displaying warning signs				
Training of workers who are, or are likely to be, exposed to dust from asbestos				
Submitting a notification to the responsible authority				
Measuring asbestos fibres in the air at the workplace				
Purchasing respiratory and/or other personal protective equipment				
Purchasing other equipment to minimize exposure to dust arising from asbestos				
Implementing organizational measures				
Storing, transporting and cleaning materials and equipment contaminated with asbestos dust				
Drawing up a plan of work				
Other (please specify)				

Please explain your reply.

63. Repeat of 61 for non-company respondents

64. Repeat of 62 for non-company respondents

65. To what extent has the Asbestos Directive (2009/148/EC) contributed to the following benefits?*

	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	No opinion
Reduced risks to workers' health and safety						
Fewer work days lost to work related injuries and ill-health						
Increased productivity in the construction sector						
Increased employee retention in the construction sector						
Reduced insurance premiums for companies in the construction sector						
Reduced legal costs for companies in the construction sector						

Please explain your reply.

Health and Safety in General

66. Do you find it difficult and burdensome to comply with health and safety requirements?*

Complying with health and safety legislation is very difficult and burdensome	Complying with health and safety legislation is somewhat difficult and burdensome	Complying with health and safety legislation is acceptable	Complying with health and safety legislation is easy	Complying with health and safety legislation is very easy	No opinion

III.2. Questions on EU legislation related to the environment and the construction sector

67. Do you wish to respond to questions on the environment and the construction sector?*

- | |
|-----------------|
| a. Yes
b. No |
|-----------------|

III.2.a. Waste Framework Directive

The Waste Framework Directive introduced the “polluter-pays principle” by requiring that the cost of waste management be borne by the original waste producer or by the current or previous waste holders. It allows European Member States to take measures to ensure that any company that professionally develops, manufactures, processes, treats, sells or imports products has “extended producer responsibility”. Such measures may include an acceptance of returned products and of the waste that remains after those products have been used, as well as the subsequent management of the waste and financial responsibility for such activities.

Further information is available via the following link: <http://ec.europa.eu/environment/waste/framework>

68. Are you answering on behalf of a company?*

- | |
|-----------------|
| a. Yes
b. No |
|-----------------|

69. Please indicate how the cost of waste management has changed now that businesses are required to separate their waste for recovery?*

Costs have increased significantly	Costs have increased slightly	Costs have not changed	Costs have reduced slightly	Costs have reduced significantly	No opinion

70. Do you find it difficult and burdensome to comply with waste management requirements?*

Complying with waste management legislation is very difficult and burdensome	Complying with waste management legislation is somewhat difficult and burdensome	Complying with waste management legislation is acceptable	Complying with waste management legislation is easy	Complying with waste management legislation is very easy	No opinion

Please explain your reply.

71. To what extent has EU legislation on waste contributed to the following benefits?*

Potential benefits	Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	No opinion
Reduced environmental impacts						
Improved corporate image for companies operating in the construction sector						
Improved resource efficiency						
Reduced risks to human health						
Reduced insurance premiums for companies in the construction sector						
Reduced legal costs for companies in the construction sector						

Please explain your reply.

III.2.b. Environmental Impact Assessment Directive

The Environmental Impact Assessment Directive (1985/337/EEC) states that consent for public and private projects which are likely to have “significant effects” on the environment should be granted only after an assessment of the likely significant environmental effects of those projects has been carried out.

Further information is available via the following link: <http://ec.europa.eu/environment/eia/eia-legalcontext.htm>

72. What impacts have arisen for the construction sector as a result of having to carry out an Environmental Impact Assessment?*

Costs have increased significantly	Costs have increased slightly	Costs have not changed	Costs have reduced slightly	Costs have reduced significantly	No opinion

73. What is your opinion regarding the criteria and thresholds determining when an Environmental Impact Assessment is required to be carried out?*

	Agree	Disagree	No opinion
Criteria/thresholds for projects to require an Environmental Impact Assessment are set too low			
Criteria/thresholds for projects to require an Environmental Impact Assessment are set too high			
Criteria/thresholds for projects to require an Environmental Impact Assessment are set about right			
Most/all of the right types of projects require an Environmental Impact Assessment			
Some types of projects that should have an Environmental Impact Assessment do not require them under the legislation			
Environmental Impact Assessment legislation captures the majority/all of the right types of project			

74. To what extent has the requirement to carry out an Environmental Impact Assessment for certain projects helped to reduce the environmental impacts of construction projects?*

Large positive impact (++)	Slight positive impact (+)	No impact	Slight negative impact (-)	Large negative impact (--)	No opinion

75. Are you aware of any other benefits arising from the requirement to carry out an Environmental Impact Assessment for certain construction projects?* If yes, please explain your answer.

Please explain your reply.

III.3. Final questions on environment and health & safety

III.3.a. Final questions on health and safety

76. Please indicate the extent to which you agree or disagree with the following statements*

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	No opinion
Workers in the construction sector are adequately protected against the risks posed to their health by exposure to asbestos					
Workers in the construction sector are adequately protected against the risks posed to their health by the manual handling of loads					
Workers in the construction sector are adequately protected against the risks posed to their health on temporary and mobile construction sites					

77. Have you or your organisation ... (please select)*

	Yes	No	No opinion
Benefitted from the harmonisation of reporting requirements for health and safety			
Benefitted from a harmonisation of other health and safety requirements (excluding reporting requirements)			
Found health and safety requirements that are consistent with each other and complementary, offering a mutually supportive implementation			
Spotted inconsistencies or overlaps among various health and safety requirements			
Identified areas within wider EU (or national) policy that are in conflict with EU (or national) health and safety legislation			
Identified health and safety requirements that help to support EU (or national) policy in other policy areas			
Found concepts, notions, and definitions that are unclear and for which interpretation is difficult			
Identified obsolete health and safety requirements, i.e. requirements that are not aligned with current market reality and technical developments			
Identified health and safety requirements that need to be simplified			
Other aspects – please specify below			

If you replied yes to any of the above, please explain your answer. Please clearly indicate which EU (or national) legislation you are discussing.

[TEXT BOX - MAX 500 CHARACTERS PER BOX]

Benefitted from the harmonisation of reporting requirements for health and safety
Benefitted from a harmonisation of other health and safety requirements (excluding reporting requirements)
Found health and safety requirements that are consistent with each other and complementary, offering a mutually supportive implementation
Spotted inconsistencies or overlaps among various health and safety requirements

Identified areas within wider EU (or national) policy that are in conflict with EU (or national) health and safety legislation
Identified health and safety requirements that help to support EU (or national) policy in other policy areas
Found concepts, notions, and definitions that are unclear and for which interpretation is difficult
Identified obsolete health and safety requirements, i.e. requirements that are not aligned with current market reality and technical developments
Identified health and safety requirements that need to be simplified
Other aspects – please specify below

III.3.b. Final questions on environment

78. To what extent do you agree with the following statement?*

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	No opinion
The environment is adequately protected against harm caused by the construction industry					

79. Have you or your organisation ... (please select)*

	Yes	No	No opinion
Benefitted from the harmonisation of environmental reporting requirements			
Benefitted from a harmonisation of other requirements designed to protect the environment (excluding reporting requirements)			
Found requirements pertaining to the environment that are consistent with each other and complementary, offering a mutually supportive implementation			
Spotted inconsistencies or overlaps among various environment requirements			
Identified areas within wider EU (or national) policy that are in conflict with EU (or national) environment legislation			
Identified requirements that have been designed to protect the environment that also help to support EU (or national) policy in other policy areas			
Found concepts, notions, and definitions that are unclear and for which interpretation is difficult			
Identified requirements designed to protect the environment that are now obsolete, i.e. requirements that are not aligned with current market reality and technical developments			
Identified environmental requirements that need to be simplified			
Other aspects – please specify below			

If you replied yes on any of the above, please explain your answer. Please clearly indicate which EU (or national) legislation you are discussing.

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Benefitted from the harmonisation of environmental reporting requirements
Benefitted from a harmonisation of other requirements designed to protect the environment (excluding reporting requirements)
Found requirements pertaining to the environment that are consistent with each other and complementary, offering a mutually supportive implementation
Spotted inconsistencies or overlaps among various environment requirements
Identified areas within wider EU (or national) policy that are in conflict with EU (or national) environment legislation
Identified requirements that have been designed to protect the environment that also help to support EU (or national) policy in other policy areas
Found concepts, notions, and definitions that are unclear and for which interpretation is difficult
Identified requirements designed to protect the environment that are now obsolete, i.e. requirements that are not aligned with current market reality and technical developments
Identified environmental requirements that need to be simplified

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