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Evaluation of the Lifts Directive 2014/33/EU

Accompanying the document

Report from the Commission to the Council and the European Parliament

on the implementation and functioning of Directive 2014/33/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to lifts and safety components for lifts

{COM(2019) 87 final}

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Glossary

<i>Term or acronym</i>	<i>Meaning or definition</i>
ADCO Lifts	Administrative Cooperation Group of Market Surveillance Authorities
CABL-SC	Standing Committee for the Cableways Directive
CBA	Cost-Benefit Analysis
CEN	European Committee for Standardisation
DG	Directorate-General
DG GROW	Directorate General for Internal Market, Industry, Entrepreneurship and SMEs
DoC	Declaration of Conformity
EO(s)	Economic Operator(s)
EEA	European Economic Area
EEA-L (in this report)	European Elevator Association
EFTA	European Free Trade Association
EHSR(s)	Essential Health and Safety Requirement(s)
ELA	European Lifts Association
ELCA	European Lifts & Lift Components Association
hEN(s)	harmonised European standard(s)
EQ	Evaluation Question
ESO(s)	European Standardisation Organisation(s)
EU	European Union
ETSI	European Telecommunications Standards Institute
FTE(s)	Full time equivalent(s)
ICSMS	Information and Communication System for the pan-European Market Surveillance
LC	Lifts Committee
LD	Lifts Directive

LWG	Lifts Working Group
MS	Member State(s)
MSA(s)	Market Surveillance Authority/ies
NACE	Nomenclature Générale des Activités Économiques dans les Communautés Européennes
NB(s)	Notified Body/ies
NB-L	European Coordination Group of Notified Bodies for Lifts
NLF	New Legislative Framework
OJEU	Official Journal of the European Union
RAPEX	EU Rapid Exchange System for dangerous non-food products
R&D	Research and Development
REFIT	Regulatory Fitness and Performance programme
RfU	Recommendation(s) for use
SBS	Small Business Standards
SBS	Structural Business Statistics
SME(s)	Small- and Medium-sized Enterprise(s)
TC	Technical Committee
ToR	Terms of Reference
TRIS	Technical Regulation Information System
UCMP	Unintended Car Movement Protection
UEAPME	European Association of Craft, Small and Medium-Sized Enterprises

1. INTRODUCTION

1.1. Purpose of the evaluation

The EU legal framework relating to lifts was initially introduced by means of two directives: Council Directive 84/528/EEC of 17 September 1984 on the approximation of the laws of the Member States relating to common provisions for lifting and mechanical handling appliances and Council Directive 84/529/EEC of 17 September 1984 on the approximation of the laws of the Member States relating to electrically, hydraulically or oil-electrically operated lifts.

As of 1 July 1999, both directives were repealed by Directive 95/16/EC of the European Parliament and of the Council of 29 June 1995 on the approximation of the laws of the Member States relating to lifts. Directive 95/16/EC provided common Essential Health and Safety Requirements (EHSRs) for lifts, regardless of the operating technique employed.

Finally, on 20 April 2016 Directive 95/16/EC was in turn repealed and replaced by Directive 2014/33/EU. The reason for this was to align the framework applicable to lifts to the New Legislative Framework (NLF) as part of the so-called "Alignment Package".¹

Considering that no major changes in the substance were brought by Directive 2014/33/EU in comparison to Directive 95/16/EC, the period before the entry into force of the current Directive (i.e. between 1 July 1999 and 20 April 2016, applying to the application of Directive 95/16/EC) remains relevant and has been taken into consideration for the evaluation of the performance of the new Directive.

The main purpose of this Staff Working Document is to assess the performance of the Directive and the extent to which the Directive meets its objectives. The main objectives of the Directive are (i) guaranteeing the free circulation of lifts and safety components for lifts within the EU and (ii) ensuring a high level of protection of health and safety of users and maintenance personnel. The evaluation examined whether the Directive has been effective, efficient, coherent and relevant in meeting these objectives and assessed its EU added value. The evaluation draws on the research conducted by external contractors and the Commission's experience with the enforcement and management of the Directive.

The Commission is legally required, following Article 46 of the Directive, to submit a report to the European Parliament and the Council regarding the functioning and implementation of this Directive by 19 April 2018. This is done in order "to monitor and ensure the correct implementation and functioning of this Directive [...] exploring also the need for a new legislative proposal in this sector".² This Commission Staff Working Document will form the basis of that report. It is also, more generally, meant to inform stakeholders and policymakers on the outcome of the evaluation and to form the basis of possible follow-up actions.

1.2. Scope of the evaluation

The geographic scope of the evaluation extends to the European Economic Area (EEA), which includes the 28 Member States of the EU and three EFTA Countries (Iceland, Norway and Liechtenstein), Turkey within its Custom Union with the EU and Switzerland by virtue of the mutual recognition agreement with the EU.

¹ See also Decision 768/2008; the NLF introduced a common structure and definitions to be used in all EU product legislation.

² See also Recital 50 of the Lifts Directive.

The evaluation covers the whole scope of the Directive with regard to (i) lifts intended for the transport of persons only, (ii) lifts intended for the transport of persons and goods, (iii) lifts intended for the transport of goods only, if the carrier is accessible to persons and if the controls of the lift are inside the carrier or can be reached from within the car, and (iv) six types of safety components for use in such lifts listed in Annex III of the Directive. It includes the analysis of the standardisation process, conformity assessment and market surveillance. To that end, Member States, notified bodies, standardisation organisations, industry stakeholders, and user's associations have been consulted. As benchmarks, where relevant, the experience of key trading partners (such as the USA, China, Korea and Japan) was used to assess performance and identify best practices.

Finally, regarding the temporal scope of the evaluation, the date of entry into force of Directive 95/16/EC, 1 July 1999 is taken as a starting point of the assessment.

2. BACKGROUND TO THE INTERVENTION

2.1. Description of the intervention

2.1.1. Scope of application of the Directive

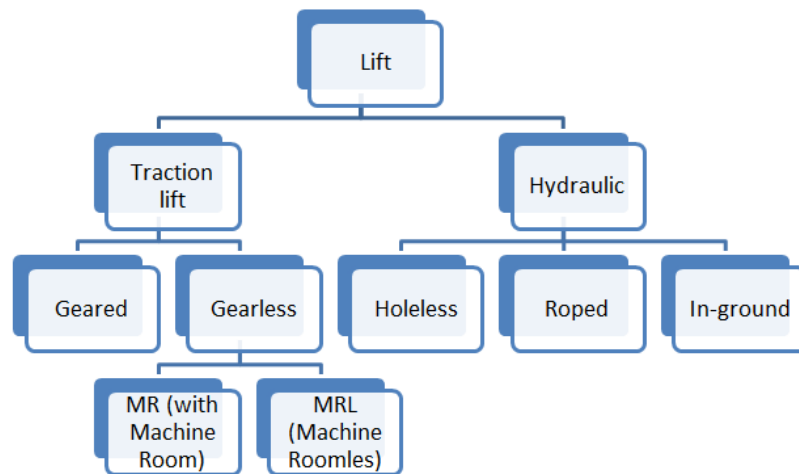
Pursuant to Article 3(1) of Directive 2014/33/EU "Member States shall not prohibit, restrict or impede the placing on the market or putting into service of lifts or the making available on the market of safety components for lifts on their territory which comply with this Directive". Therefore, the Directive does not cover existing lifts, which have already been placed on the market and put into service. Furthermore, modernisation activities conducted on such existing lifts also fall outside the scope of the Directive. Nevertheless, if an existing lift is subjected to significant modifications which have altered its characteristics, then the said lift should be considered as a "new product" thus in turn entailing the application of the Directive.³

Article 2(1) of Directive 2014/33/EU defines a "lift" as "a lifting appliance serving specific levels, having a carrier moving along guides which are rigid and inclined at an angle of more than 15 degrees to the horizontal, or a lifting appliance moving along a fixed course even where it does not move along rigid guides". Furthermore, pursuant to Article 1, the Directive applies to lifts "permanently serving buildings and constructions and intended for the transport of (a) persons, (b) persons and goods" and "(c) goods alone if the carrier is accessible, that is to say a person may enter it without difficulty, and fitted with controls situated inside the carrier or within reach of a person inside the carrier".

Lifts can be classified into two main categories according to their drive systems – traction or hydraulic lifts. Both categories are divided in sub-categories according to the specific technical solution used as shown in Figure 1.

³ c.f. Section 2.1. of "The 'Blue Guide' on the implementation of EU products rules 2016", 2016/C 272/01

Figure 1: Classification of the lift product group⁴



2.1.2. The Directive's intervention logic

The Directive has two main objectives:

- Ensuring the free movement of lifts and safety components for lifts throughout the EU and contributing to and effectively operating internal market for the said products. As such, Member States must allow marketing on their territory of lifts and safety components for lifts that comply with the requirements of the Directive;
- Guaranteeing that lifts and safety components for lifts within the scope of the Directive are safe for users and maintenance personnel thus improving the health and safety of these groups.

These two strategic objectives are further broken down into three specific objectives, namely:

- Simplifying and harmonising conformity assessment procedures in the EU;
- Harmonising essential health and safety requirements (EHSRs) across the Member States;
- Preventing the placing on the market of non-compliant lifts and related components.

In order for these specific objectives to be achieved, the Directive includes key provisions to be transposed and implemented by Member States. These key provisions include:

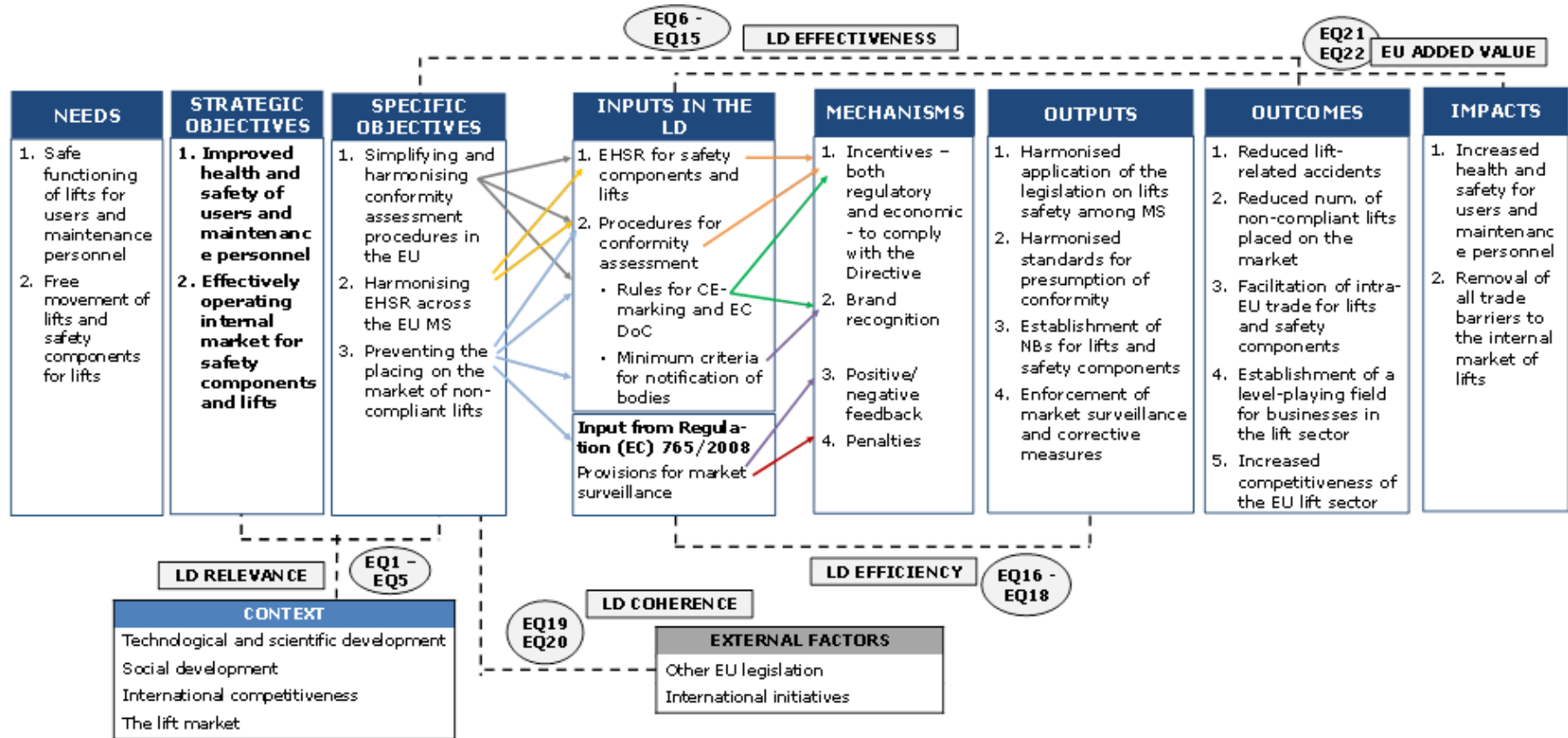
- the EHSRs contained in Annex I. In line with the New Approach principles, Directive 2014/33/EU does not harmonise the product requirements applicable to lifts and their safety components by prescribing a particular set of technical solutions but by providing for the essential health and safety requirements (hereinafter "EHSRs") with which these products must comply. Thus, the manufacturers of lifts and safety components retain the choice of the specific technical solutions to adopt, provided that they prove that these technical solutions comply with the EHSRs. This proof can be brought by manufacturers by means of one of conformity assessment procedures provided for in Annex IV of the Directive;
- the requirement to ensure the granting of a two-way communication between the lift installer and the building constructor pursuant to Article 6(1);

⁴ source: Ecodesign preparatory study for lifts implementing the Ecodesign Working Plan 2016-2019 based on the E4 (Energy-Efficient Elevators and Escalators) project.

- the procedures for conformity assessment together with the related provisions on the CE marking and the EU Declaration of Conformity (DoC). A manufacturer can only place a product on the EU market when it meets all the applicable requirements. The conformity assessment procedure is carried out before the product can be placed on the market. The conformity assessment procedures aim to demonstrate that the product in question meets all the EHSRs in Annex I. It includes testing, inspection and certification and a Notified Body (hereinafter “NB”: a private body designated by an the competent authorities of an EU Member State to assess the conformity of certain products before being placed on the market) is involved in all circumstances. In line with the principles of the New Legislative Framework (NLF), Decision 768/2008 has provided for a number of conformity assessment procedures which may be used to prove compliance depending on the risk presented by the product as well as the choice of the manufacturer. Once the conformity assessment procedure has been completed, the manufacturer draws up a DoC which contains identification of the product, the relevant applicable legislation, the manufacturer or authorised representative's contact details as well as other relevant information;
- the provisions on market surveillance (in Chapter V of the Directive). The market surveillance is the ex-post verification which aims to ensure that the products which are available on the market and which circulate freely are compliant with the EHSRs. Unlike the conformity assessment procedure which is overseen by a NB, the market surveillance tasks are carried out by market surveillance authorities which are Member States' authorities. Market surveillance is usually performed by means of targeted inspections, regular market surveillance programmes, joint actions by several MSAs etc.

These provisions are expected to work through mechanisms (i.e. incentives – both regulatory and economic - to comply with the Directive, brand recognition, positive/negative feedback and penalties) that will trigger short, medium and long term results (referred to as outputs, outcomes and impacts respectively, see figure 2 below). For instance, the obligatory CE marking may bring added value to economic operators due to the fact that it is perceived as a “brand” proving the safety of products.

Figure 2: The Directive's intervention logic



The total harmonisation of the legal framework related to lift safety as well as the development of harmonised European standards (hereinafter "hENs") which support the provisions of the Directive and allow the establishment of presumption of conformity are among the immediate results stemming from the application of the Directive. The establishment of NBs for lifts and safety components and the enforcement of market surveillance and corrective measures are also seen as immediate outputs.

The correct and full implementation of all these provisions is directed at achieving some specific outcomes, namely: a reduction in lift-related accidents, a reduced number of non-compliant lifts placed on the market, the facilitation of intra-EU trade for lifts and safety components, the establishment of a fair and level-playing field for businesses in the lift sector and an overall increased competitiveness of the EU lift sector.

In the long term, the foreseen impacts of the provisions of the Directive are the increased health and safety for users and maintenance personnel and the removal of all trade barriers to the Internal Market of lifts. These foreseen impacts fully meet the initial objectives of the Directive.

2.2. Role of harmonised European standards and standardisation requests

Article 14 of Directive 2014/33 lays down a presumption according to which lifts and safety component for lifts, which are in conformity with hENs, references of which are published in the Official Journal of the European Union, shall be presumed to comply also with the EHSRs, provided that the harmonised standards cover the risks presented by the product. A harmonised standard is defined⁵ as "a European standard adopted on the basis of a request made by the Commission for the application of Union harmonisation legislation". These standards are developed by the European Standardization Organizations (ESOs) such as the European Committee for Standardization (CEN), which are entrusted by the EU with the mission to develop and adopt European standards in support of EU legislation. The Commission confers such a mission to the ESOs by means of a standardisation request.

Hence, the hENs play a pivotal role as they support the provisions of the Directive by providing manufacturers with possible technical solutions which are presumed to be compliant with the ESHRs.

One standardisation request (reference M/BC/CEN/CLC/3/92) in relation to the Lifts Directive was issued by the Commission to CEN in 1992.⁶ Thus, since 1992, CEN has elaborated and published a number of hENs for lifts and safety component of lifts. To be in line with Directive 2014/33/EU, the Commission issued a new standardisation request to CEN (reference M/549⁷) in September 2016.

⁵ In Article 2(1) of Regulation 1025/2012 (to which Directive 2014/33 refers).

⁶ Directive 95/16/EC was in force at the time of this request.

⁷ Available at http://ec.europa.eu/growth/tools-databases/mandates/index.cfm?fuseaction=select_attachments.download&doc_id=1632.

Regarding the relationship between the EHSRs and hENs, it should be noted that the application of hENs conferring presumption of conformity to the Directive's EHSRs is always voluntary and such standards cannot add additional requirements which go beyond the EHSRs. The hENs merely provide technical solutions to manufacturers, which are in no circumstances binding, unlike the EHSRs which should always be complied with. If after carrying out the risk assessment, the manufacturer considers that the hENs do not address all the risks of its product or prefer other alternative technical solutions, he may apply alternative technical solutions but having to demonstrate the compliance with the EHSR in the technical file to be submitted to a NB within the framework of a conformity assessment procedure.

The development of hENs also has the potential to support the establishment of global value chains. For example, ESOs cooperate with international standardisation bodies such as ISO and IEC, to develop international standards to be used worldwide. The aim is that hENs for lifts to become leading international standards. For example, many standards for lifts developed by CEN like EN 81-20/508 are already used worldwide.

2.3. Major amendments to the original Lifts Directive 95/16/EC

After its entry into force in July 1999, Directive 95/16/EC was amended on several occasions, most notably by the revised Machinery Directive 2006/42/EC before being repealed and replaced by the new Directive 2014/33/EU as from 20 April 2016.

During the implementation phase of the Directive 95/16/EC it appeared necessary to clarify the definition of lift in order to better delimitate the respective scopes of the Machinery Directive and the Lifts Directive. The fact that there are a number of machines intended for lifting of persons justified the need to clarify these borderline cases (products that could potentially fall under the scope of both Directives).⁹ The main objective of this intervention was to exclude the potential situations of overlapping between both Directives in which the two legal regimes would be applicable to the same product.¹⁰

Thus, Article 24(1) of the Machinery Directive amended the scope of Directive 95/16/EC, clarifying the definition of a “lift” as *“a lifting appliance serving specific levels, having a carrier moving along guides, which are rigid and inclined at an angle of more than 15 degrees to the horizontal”*. The amendment extended the scope of the Lifts Directive to include also lifting appliances moving along a fixed course even where they do not move along rigid guides. This amendment also clarified the definition of carrier, which *“is a part of the lift by which persons and/or goods are supported in order to be lifted or lowered”*.

⁸ Currently, there are three main prescriptive elevator codes used in the world:

- 1 ASME A17/CSA B44 Safety Code for Elevators and Escalators, used in North America;
2. Building Standard Law of Japan (BSLJ), plus the Japanese Industrial Standards (JIS)/Japan Elevator Association (JEA) series of standards used in Japan; and
3. EN 81 series of standards used in Europe and other regions and countries. ISO/TC 178 standard ISO 8100-1/-2 has the same content as EN 81-20/-50. The European and ISO-standards will be merged in amended versions of the EN-ISO 8100-1/-2 by the end of 2020.

⁹ c.f. Recital 27 of Directive 2006/42/EC.

¹⁰ Furthermore, the requirements of the Lifts Directive are to a certain extent more stringent than the requirements of the Machinery Directive.

On 20 April 2016 the new Lifts Directive 2014/33/EU replaced Directive 95/16/EC and introduced relatively limited changes. Its main purpose was to align the legislation on lifts and safety components to the NFL. The main changes brought by the new Directive are:

- The terminology of the list of safety components, Annex III, points 2 and 6, has been amended. Point 2, referring to devices to prevent “unchecked upward movements” has been amended into “*uncontrolled movements*” (UCMP). Point 6, referring to “*electric safety devices in the form of safety switches containing electric components*” has been amended into “*electric safety devices in the form of safety circuits containing electric components*”.
- Several new or amended definitions, additions from the NFL, such as: placing on the market, making available on the market for safety components, authorised representative, importer, distributor, economic operator, technical specification, recall and withdrawal;
- The obligations of economic operators have been aligned to the NFL. For example, the installer of lifts and manufacturer of safety components must report to the national authorities any non-conformities or safety issues identified in their product(s);
- New and modified requirements for Member States for setting up and performing market surveillance and related activities;
- Few modifications on the terminology used for EHSRs listed in Annex I;
- New and modified requirements for accreditation, notification and operation of the NBs in accordance with the NFL.

2.4. Baseline and points of comparison

The Directive 95/16/EC, which has now been replaced by Directive 2014/33/EU, was adopted in 1995 and became fully applicable on 1 July 1999. Due to the lack of sufficient quantified data relating to the period prior to the adoption of Directive 95/16/EC, the baseline scenario could not be fully reconstructed within the framework of the present evaluation.

Directive 95/16/EC repealed and replaced Council Directives 84/528/EEC and 84/529/EEC. The scope of application of both Directives was limited to “electrically, hydraulically or oil-electrically operated” lifts, which meant that the requirements applicable to lifts using other propulsion techniques were not subject to harmonisation. Therefore, before the entry into force of Directive 95/16/EC, disparities between the binding provisions of the various national systems for types of lifts not covered by Directives 84/528/EEC and 84/529/EEC subsisted. These disparities constituted barriers to trade and limited the free movement of these products within the EU.

Furthermore, Council Directives 84/528/EEC and 84/529/EEC did not reflect the New Approach principles, which were only introduced by Directive 95/16/EC. Thus, before Directive 95/16/EC, lift manufacturers were required to comply with a specific technical standard and they could not benefit from a presumption of conformity by demonstrating the conformity of their products with hENs.

As an order of magnitude, while trade within the EU-15 in 1995 (therefore prior to the entry into force of Directive 95/16/EC) amounted to around EUR 700 million, it reached nearly EUR 1,8 billion in 2004. In 2015, the intra-EU trade has surpassed EUR 2,8 billion.

3. IMPLEMENTATION / STATE OF PLAY

3.1. Transposition and implementation of the Lifts Directive

One of the two main objectives of the Lifts Directive is to ensure the free movement of lifts and safety components for lifts throughout the EU and to contribute to the effective operation of the internal market for these products. Therefore, in order to achieve this objective, the provisions laid down by the Directive should be applied in a coherent manner throughout the EU and discrepancies in the applicable framework in different Member States should be minimal.

The Directive has been fully transposed into the national legislation of the Member States and is part of the *acquis* to be implemented by the new Member States. Following the subsequent enlargements of the European Union, the Lifts Directive became applicable in more and more countries.

Overall, all Member States have uniformly transposed the main provisions of the Directive relating to the EHSRs and conformity assessment.¹¹ The evaluation study found that no significant discrepancies persist across the Member States and no major problems in the implementation of the Directive were reported. Also, 73% of the interviewed stakeholders do not consider that there have been any persisting national practices which incorporate costly or unnecessary requirements into products or structures covered by the Directive.

Nevertheless, some discrepancies have been identified by stakeholders in relation to the provisions of Directive 95/16/EC. Their impact on the performance of the Directive and in particular its effectiveness are analysed with more details in section 5 of this document.

(1) The definition of “*installer*” was transposed in the exact same terms used by Directive 95/16/EC in 26 Member States. The Estonian legislation initially contained a different definition.¹²

(2) The provision requiring the establishment of a two-way flow of information between the person responsible for the building construction and the lift installer (Article 6(1) of the Directive) has been transposed in its exact terms in the national legislation of 26 Member States and no additional requirements were introduced. The Austrian and the Hungarian legislations both provide for specific mechanisms to ensure that this two-way flow of information is ensured.¹³

¹¹ c.f. Evaluation of the Lifts Directive, final report, pages 39-45 and 132-137.

¹² In the Estonian Product Conformity Act, which was transposing the provisions of Directive 95/16/EC, reference was made to “*manufactuer*” instead of “*installer*”. Nevertheless, this did not have an impact on the obligations entrusted to that economic operator. The Building Code, which transposes the provisions of Directive 2014/33/EU now refers to “*installer*” in its Article 80.

¹³ Evaluation of the Lifts Directive, final report, page 40.

(3) Twenty Member States have included into their respective national transposition legislation provisions relating to the accessibility of disabled persons, namely EHSR 1.2. and 1.6.1., which are formulated in the exact terms as those in the Directive. The remaining 8 Member States have incorporated the accessibility provisions for lifts mainly into their respective national building regulations. In this regard, it should be noted that the general building accessibility rules fall under the realm of competence of the Member States and therefore they have exclusive competence to regulate these aspects.¹⁴

(4) A number of stakeholders have raised concerns¹⁵ regarding the application of the third paragraph of EHSR 2.2¹⁶ related to the prevention of the risk of crushing. This EHSR is of particular relevance for the health and safety of maintenance personnel operating outside the lift car. The provision stipulates that the risk of crushing is to be prevented by means of free space or refuge beyond the extreme positions that can be reached by the lift car to enable a person to avoid being crushed in case of unexpected movement of the car. The first two paragraphs of this EHSR set the requirements for lifts to be "*designed and constructed to prevent the risk of crushing when the car is in one of its extreme positions. The objective will be achieved by means of free space or refuge beyond the extreme positions.*" The third paragraph introduces a flexibility by allowing "*in specific cases, in affording Member States the possibility of giving prior approval, particularly in existing buildings, where this solution is impossible to fulfil, other appropriate means may be provided to avoid this risk.*"

The "prior approval" procedure allows installers to use alternative means to avoid the risk of crushing after obtaining the prior approval of the respective national authority. However, the Directive does not provide indications as to the criteria according to which the national authorities may grant or refuse to grant such a prior approval.

In fact, some stakeholders consider the "prior approval" as the most recurrent problem related to the implementation of the Directive, and some others consider that the application of the "prior approval" represents the deepest discrepancy in existing differences across Member States.¹⁷¹⁸

(5) Additional issues have been raised in relation to the conformity assessment and in particular in relation to the EC-type examination certificate for lifts. Specifically, information gathered from some stakeholders had suggested that installers were sometimes requested to present further evidence on lift compliance. However, following the entry into force of Directive

¹⁴ For instance, in France, Ireland, Spain, Sweden and the UK, building regulations "accessible" passenger lifts should conform to harmonised standard EN 81-70. In Poland, the national building regulations include specific provisions for granting disabled persons accessibility to lifts, aligning with the recommendations of the Declaration made by the European Parliament, the Council and the Commission. In Cyprus, Italy and Latvia the building regulations provide for specific requirements on the dimensions of the lift car, on the presence of telephone devices and on the exact location of lift control panels. In Spain, Latvia and Italy local regulations prescribe additional requirements such as the use of Braille system.

¹⁵ Evaluation of the Lifts Directive Study, Final report, page 145.

¹⁶ This provision remained unchanged following the entry into force of Directive 2014/33/EU.

¹⁷ Evaluation of the Lifts Directive Study, Final report, page 147.

¹⁸ With regards to the Directive 95/16/EC, the Evaluation study had pointed out to some discrepancies in the national transposition legislations of the different Member States. For further information c.f. Evaluation of the Lifts Directive Study, Final report, page 41. These discrepancies now seem to have been addressed in the national measures transposing Directive 2014/33/EU.

2014/33/EU, these uncertainties have been clarified as the new Directive has partly amended the content of the EC-type examination certificate (now called “EU-type examination certificate”) for lifts and safety components for lifts.

6) In relation to the market surveillance, unlike Directive 95/16/EC which did not contain any specific procedures, Directive 2014/33/EU now incorporates dedicated provisions in line with the New Legislative Framework.¹⁹ The evaluation demonstrated that market surveillance has been differently implemented across Member States, in terms of strategies, extent of monitoring activities and frequency and types of checks. Thus, at least 11 Member States have adopted an essentially proactive approach towards market surveillance, while only one Member State has declared to have rather opted for a reactive approach.²⁰

Surveillance activities also differ between Member States in terms of type of checks. Thus, some MSAs monitor mainly documents and authorisation checks (e.g. Hungary, Norway, Slovakia, Sweden and Poland), while others focus on product marketing inspections and on accompanying document checks in the lift sector (e.g. the Czech Republic) or conduct inspections in the premises of lifts installers and in buildings where lifts are installed (i.e. Estonia and Cyprus).²¹ The same applies for the numbers of checks performed by the different Member States which vary considerably, in some cases ranging from 1 to 582 checks performed in 2013.²²

Data gathered within the framework of the evaluation indicated some degree of divergence regarding the respective penalty regimes adopted by the different Member States for the infringements to the provisions of Directive 95/16/EC. However, Directive 2014/33/EU has now introduced a dedicated provision and requires that the “*penalties provided for shall be effective, proportionate and dissuasive*”.²³

The evaluation has concluded, based on a number of concurring sources, that the proportion of non-compliant lifts in relation to the total number of installed lift is negligible. For instance, the number of penalties imposed, as well as the instances of voluntary corrective measures taken by economic operators or restrictive measures imposed by MSAs in the lift sector between 2010 and 2013 have been relatively low.²⁴ Thus, at EU level in 2013, few measures were reported relating to non-compliant lifts or safety components, consisting mainly in voluntary measures (15), restrictive measures (14) and penalties (3).²⁵

¹⁹ See also Decision 768/2008; the NLF introduced a common structure and definitions to be used in all EU product legislation.

²⁰ Evaluation of the Lifts Directive, final report, page 44.

²¹ Evaluation of the Lifts Directive, final report, page 44.

²² Evaluation of the Lifts Directive, final report, page 45.

²³ Article 43 of Directive 2014/33/EU.

²⁴ Data aggregated by the authors of the Evaluation of the Lifts Directive, based on the report on the MS reviews and assessment of the functioning of market surveillance activities for the 2010-2013 period pursuant to Article 18(6) of Regulation (EC) No 765/2008, Sector 10 Lifts. cf. Table 4, Evaluation of the Lifts Directive, final report page 45.

²⁵ Evaluation of the Lifts Directive Study, Final report, page 62.

Furthermore, over the period 2005-2015, no RAPEX²⁶ notifications related to lifts or lift safety components in scope of the Directive were submitted. In addition, only one safeguard clause procedure has been initiated. At Member State level, the few data collected through national reports reflect this positive outline. Although these data could be also interpreted as due to low MSAs' effectiveness in identifying non-compliant lifts, they still allow inferring on the low absolute dimension of non-compliance in the sector.²⁷

3.2. Description of the market

The lift market is characterised by enterprises that besides manufacturing lifts and safety components in scope of the Directive, sell also other products and services (i.e. other lifting equipment and maintenance services) that do not fall in scope of the Directive.

The number of firms active in the lifts market including manufacturing of safety components, installation of lifts and modernisation and maintenance activities was equal to 0,1% of the total number of firms active in all the manufacturing sectors in the EU28 in 2014 corresponding to around 2 000 firms according to Prodcum data.

Nevertheless, the number of firms impacted by the Directive is actually lower than 2 000, as this number includes also firms performing only modernisation and maintenance which are activities outside the scope of the Directive.

The distribution in the number of firms per size is very uneven in the lifts sector: 51% of firms are micro, 31% are small, 15% are medium, and only 3% are large firms. While, the number of firms in the lift sector has been overall declining since 2008, possibly due to the financial and real estate crisis, this trend seems to particularly impacting large firms (8% decrease). The number of medium and small firms has decreased on average by 6 and 5% respectively, while the number of micro firms has increased overall by 1%. In 2015, large firms employed 62% of EU workforce in the lift sector, medium firms employed 24%, small firms 11% and micro firms 3%.

When looking at the distribution per country, 70% of firms in the lift sector were located in ten Member States in 2014. Over the period 2008-2014, all EU countries, with the exception of Bulgaria, Greece and Poland, experienced a decrease in the number of firms active in the lift sector.

Most turnover is produced by large firms, with a strong presence of four large multinational companies – Kone, Otis, Schindler, and ThyssenKrupp Elevator²⁸ – which had a combined market share of at least 55% in terms of value in Europe in 2014. Micro and SMEs play a key role as manufacturers and importers of safety components, as well as providers of maintenance and modernisation services.

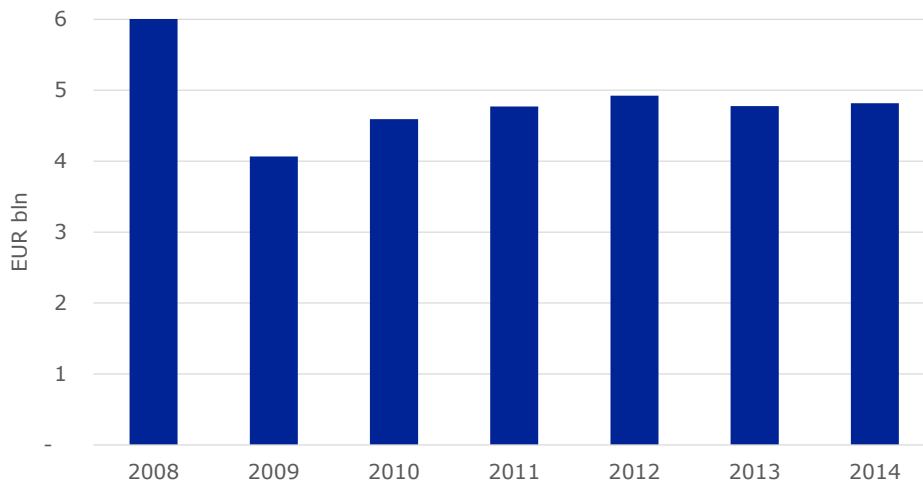
²⁶ In addition to ICSMS, RAPEX (Rapid Exchange of Information System) is a system set up for improving communication and collaboration between MSs and the Commission on measures and action taken in relation to products posing serious risks, which ensures that appropriate action can be taken everywhere in the EU.

²⁷ Evaluation of the Lifts Directive, final report, page 62.

²⁸ Kone is a Finnish company, ThyssenKrupp is German and Schindler is Swiss. Otis is a US-based company with a strong presence on the EU market through its subsidiaries, which were taken into account for the purposes of this analysis. Other relevant European companies are the Spanish Orona and the Greek Kleemann.

The overall turnover related to the sales of new lifts and components is estimated to be equal to around EUR 5 billion in Europe in 2014 according to European Lifts Statistics (2017) provided by the European Lifts Association (ELA). According to the same source, the number of new lifts installed in the EU28 plus Norway, Switzerland and Turkey experienced an average decrease of 1% over the period 2010-2015, passing from 132 857 units in 2010 to 124 574 units in 2015. This trend is almost entirely due to significant drops in two of the biggest markets – Italy (-61%) and Spain (-53%) – both having suffered the real estate bubble crash in 2008. In most other countries, the number of new lifts installed has actually increased (+16% on average).

Figure 2: Turnover related to the sales of new lifts and components in the EU between 2008 and 2014



Source: EY, Technopolis Group and VVA Consulting Evaluation of the Lifts Directive, Final report, based on Eurostat SBS, data for EU28

Based on statistics provided by the European Elevator Association (EEA-L), ELA and European Lifts & Lift Components Association (ELCA), the number of existing lifts in service in Europe is 5 700 000. This figure includes both lifts put into service before the Directive was in force and those placed on the market under it.

Six countries totalled nearly 80% of the overall production value of the EU28 in 2015: Spain (23%), Germany (19%), Italy (16%), and France (10%). Well below follow Finland (6%) and Sweden (5%).

The major producing countries are also those where R&D mainly takes place. The most innovative European country in the lift sector is Germany, granting on average 52 patents per year, i.e. 30% of total patents granted in the EU over the period 1990-2012. It is followed by France (11% on average), Spain (9%), Finland (6%) and Italy (4%). These countries are also amongst the ten most innovative worldwide in the lift sector between 1990 and 2014. The full list includes China, Japan, Germany, the USA, the Republic of Korea, France, Switzerland, Spain, Finland, and Taiwan.

4. METHOD

4.1. Description of the methodology

The main purpose of the present evaluation is to assess the performance of the Lifts Directive and the extent to which the Directive meets its objectives in an efficient and coherent way, is still relevant and has EU added value. The evaluation aimed at gathering both qualitative and quantitative evidence from a number of complementary data sources, including European and national public authorities, industry associations, economic operators, notified bodies, consumer organisations and citizens/users of lifts.

The evaluation project was monitored by an Inter Service Steering Group (hereinafter "ISSG") composed of representatives of three European Commission services, namely DG Internal Market, Industry, Entrepreneurship and SMEs, DG Justice and the Secretariat-General.

The evaluation was supported by a study²⁹ conducted by an independent consultant – consortia between EY, Technopolis Group and VVA Consulting. This study comprised three major phases. The first two phases were aimed to collect data. On the one hand this collection was accomplished by means of desk research and literature review in the initial inception phase. On the other hand, during the second phase data was gathered from the stakeholder by different means such as interviews, targeted consultations as well as a Public Consultation. Finally, the independent consultant analysed the collected data and presented its Final Report to the Commission submitted in the end of 2017. The whole process and the findings are included in the publicly available Final Report on the evaluation of the Lifts Directive.

The desk research during the initial inception phase included a comprehensive review of the existing documents and legislative texts at international, EU and national levels. Insights on the policy context have been gathered through previous studies and reports on the on-going work of the Commission on harmonisation legislation, the standardisation requests, documents of the NB-L co-ordination group including the RfUs, documents of the European manufacturers/installers associations and economic operators annual reports. These documents have been crucial to frame the legislative background, the Directive's main provisions and working mechanisms and to identify the roles and responsibilities of stakeholders' concerned by the Directive.

During the second phase, data was collected using various tools aiming to reach out all stakeholders in the most effective way. The following techniques were used:

- A Public Consultation launched by the Commission in early June 2016 and concluded in January 2017, involving overall 66 stakeholders. The results of the Public Consultation have been considered as evidence to be triangulated with information gathered through the other research tools;
- Four targeted surveys addressed to four categories of stakeholders (Member State authorities in charge of the implementation of the Directive, MSAs in charge of the enforcement of the Directive, Notified Bodies, lift installers and safety component

²⁹ Evaluation of Directive 95/16/EC on the approximation of the laws relating to lifts, Final report, November 2017 <https://publications.europa.eu/en/publication-detail/-/publication/9f1a5907-e539-11e7-9749-01aa75ed71a1/language-en>

manufacturers, including SMEs, and related industry associations). Overall, it involved 116 stakeholders. The targeted surveys included both closed and open questions complementing the questions of the Public Consultation;

- Interviews with 38 stakeholders. Interviewees were selected on the basis of their specific knowledge of or experience with the Directive, particularly for the case studies³⁰. They were also selected to ensure a balanced geographical coverage and a balanced representation of all of the above mentioned stakeholder categories;
- A Workshop held in the context of the LWG. The workshop served to discuss the preliminary results of the study with representatives of the Commission, of Member States and observers from the industry, standardisation bodies and NB-L. The workshop has been a valuable tool to collect further evidence and validate the results with the Member States and the relevant stakeholders.

Altogether, through the different tools used, more than 220 stakeholders were consulted, with a wide geographical coverage.

More details on the consultation are included in the synopsis report in Annex 3.

4.2. Limitations and robustness of findings

The limitations of the study conducted by the independent consultant as well as the corresponding mitigation actions undertaken are described in Table 1.

Table 1 - Limitations and mitigation actions

Limitation	Mitigation measure
Lack of assessment of the effectiveness of the Directive against the baseline	Whenever possible information reported by stakeholders referring to the situation previous to the entry into force of the Directive has been considered in the analysis
Lack of data on market surveillance in the lift sector	A number of questions were foreseen in the targeted surveys to fill in these gaps. The answers to these questions proved to be not entirely informative, therefore the assessment of the effectiveness of market surveillance was based on available data collected through desk research.
Lack/incompleteness of market data	A specific methodology, to gather estimates to disaggregate data, has been developed, also through additional stakeholder consultation
Lack of official data on lift accidents at EU level	Additional reports/literature have been investigated to fill-in the gaps at least for the main MS. Most of the analysis is based on data requested to ELA
Low response rate to	Specific interviews were scheduled to fill-in these gaps.

³⁰ The Evaluation study contains five case studies covering inter alia the issues of the lift accessibility for disabled persons, the prior approval procedures, market surveillance activities etc.; c.f. Evaluation of the Lifts Directive, final report, pages 137-175.

targeted survey questions collecting data for the CBA	Moreover, the CBA performed within the framework of the evaluation study presents the estimates resulting from this exercise trying to avoid generalisations due to small sample on which calculations are based.
Unbalanced representation of some stakeholders/MS	General interviews aimed at involving the least represented categories/ MS

Source: EY, Technopolis Group and VVA Consulting, Evaluation of the Lifts Directive, Final report, page 25

The main limitation that the independent consultant had to face while conducting the study was linked to the difficulties to reconstruct the baseline scenario. This was partly due to the fact that no impact assessment was conducted prior to the adoption of Directive 95/16/EC and also due to the difficulties to collect information dating back to more than 20 years.

In order to mitigate this limitation, the independent consultant relied on information regarding the period prior to the adoption of the Directive that was gathered by the various stakeholders which took part in the targeted survey.

In addition, the independent consultant has invoked limitations related to the lack of market data as well as standardised lift-accident data. The lack of such data is due to several factors:

- incomplete data in the national reports on market surveillance activities;
- the fact that maintenance and modernisation activities are excluded from the scope of the Lifts Directive renders more complex the precise definition of the lifts market. Due to data aggregation, it was not possible to distinguish the number of firms active in the production and installation from those performing modernisation and maintenance only, and therefore not impacted by the Directive but by the national legislation;
- incomplete official accident data in national reports on market surveillance for lifts;
- the absence of an official centralised reporting system on accidents as well as a common classification on the seriousness of the injuries;
- lack of distinction between accidents involving lifts subject to the Directive and “existing lifts” (i.e. lifts installed before the entry into force of the Directive)

In order to mitigate the limitations related to lack of market data, the consultant has developed a specific methodology to the market analysis which is described in section 4.2.1. of the Final Report of the Evaluation of the Lifts Directive study.³¹

In order to mitigate the consequences of the fragmented lift-related accident data, the consultant has performed a more in-depth desk research and gathered additional information about the lift accidents for at least the biggest national markets (such as DE, ES, FR and IT). However, as mentioned in section 3.4. above, the data that has been gathered did not allow to conduct a detailed comparison between the state of play in the different Member States. Nevertheless, some trends could still be observed.

The Inter Service Steering Group (ISSG) which closely monitored the study expressed reservations regarding the quality of the first interim deliverables. For example, the desk

³¹ Evaluation of the Lifts Directive Study, Final report, page 26.

research was very limited and the ISSG had to suggest alternative sources of information. After the consultant had taken into account the comments of the ISSG, the quality of the Final Report has improved.

Overall, the reliability and robustness of the data gathered within the framework of the study has been assessed as satisfactory given the care that was taken to carry out inclusive consultation and measures put in place to reach in a balanced way European industry associations, manufacturers, installers, national authorities and notified bodies to ensure input of representative sample of stakeholders. Furthermore, the qualitative assessment is considered to be sufficiently reliable. Finally, as regards the quantitative analysis, data on cost/benefits were available only for a limited number of companies and hence it makes sometimes impossible to draw firm general conclusions at EU level.

Nevertheless, despite these shortcomings, the study managed to gather more information, with a sufficient level of precision in comparison to the one already available to the responsible Commission service.

The final results and conclusions of the study report are therefore considered sufficiently reliable to use as a basis for the present document. The Final Report of study was also presented in a meeting of the Lifts Working Group which took place on 17 January 2018. This Working Group is composed of representatives of the national authorities in charge of the implementation of the legislation and the market surveillance. Also at this level, the quality of the report and its conclusions were well received and supported.

5. ANALYSIS AND ANSWERS TO THE EVALUATION QUESTIONS

The core of the evaluation is the analysis of the relevance, effectiveness, efficiency, coherence and EU added-value of the Lifts Directive. Detailed evaluation questions³² were developed to ensure that the evaluation criteria could be properly assessed.

5.1. Relevance

The relevance of the Directive is assessed by checking the relevance of its objectives to current needs, especially taking into account innovation and new technologies and the clarity of the Directive.

5.1.1. Relevance of objectives to current needs related to free movement and safety

The Directive pursues two strategic objectives: to ensure the free movement of compliant lifts and safety components for lifts throughout the EU and also to guarantee that lifts and safety components for lifts within the scope of the Directive are safe for users and maintenance personnel (see also the intervention logic in section 2.1.2 above).

The evidence gathered through surveys and interviews confirms that both objectives correspond to the present needs of consumers and economic operators in the field and are still particularly relevant today. 99% of respondents to the survey stated that the Directive meets

³² C.f. Annex 2.

their current needs to a great/some extent. The relevance has been confirmed also by six interviewees.³³

On the one hand, in respect to the objective to ensure the free movement of compliant products, 94% of the consulted stakeholders acknowledge that the Directive contributes to reducing barriers to intra-EU trade.³⁴

On the other hand, in respect to the objective to guarantee a high level of safety of lifts and components, the need for a Directive harmonising the EHSRs for lifts and safety components is also confirmed by 94% of survey respondents.³⁵ While the core needs identified at the time of the Directive's adoption are still persistent and the objectives of the Directive still relevant thereto, the evaluation identified some specific needs, such as the prevention of the risk of crushing as well as the accessibility for disabled persons that are not addressed according to some respondents. These respondents point out to the lack of specificity of the relevant provisions as well as the different implementation of these provisions at national level as sources of concern.³⁶ These concerns and more specifically the effectiveness of the relevant provisions will be further analysed in Section 5.2.2. below.

5.1.2. Relevance to needs specifically related to innovation and new technologies

Over time, a number of drivers – such as demographic development, urbanisation, safety, travel speed acoustic noise, ride comfort and occupied space – have contributed to the development of new technologies related to lifts. The drivers that led to such developments are various and are not directly related to the implementation of the Directive.

The Directive is still adequate in addressing needs related to these developments thanks to the flexibility of its EHSRs, which leave to the manufacturers/installers the choice of the specific technical solutions used to comply therewith. Also, 72% of survey respondents and 91% of the Public Consultation acknowledge that the flexibility of EHSRs allows to address potential safety needs related to innovation and new technologies. The Directive's EHSRs are considered flexible enough so that according to 94% of survey respondents, they allowed European firms' propensity to innovate and for 84% of respondents it increased the European lift sector competitiveness with respect to global competitors.

Therefore, the Directive is still needed as it sets common requirements for all economic operators active in the sector across Europe, providing that all lifts placed on the EU market comply with its EHSRs. Moreover, the Directive demonstrated to be able to align to technological developments occurred in the lift sector and to take into account risks related thereto.

5.1.3. Clarity of the Directive

On average, 92% of survey respondents deem that tasks, obligations and rights of all stakeholders concerned by the Directive (i.e. safety component manufacturers, lift installers,

³³ An Italian MSA, two implementing authorities, an Italian and a Spanish industry association representing SMEs, a German representative from the coordination of NBs for lifts.

³⁴ 89 out of 95 survey respondents.

³⁵ Including 72 out of 109 “to a large extent”, 31 out of 109 “to a moderate extent”.

³⁶ Evaluation of the Lifts Directive Study, Final report, page v of executive summary and page 50.

NBs, public authorities – namely Member States and their market surveillance authorities) are clear, in particular in Directive 2014/33/EU. Among the tasks of stakeholders concerned by the Directive, the rules for affixing the CE marking are clear, according to the large majority of respondents (69%) or clarified in Directive 2014/33/EU (20%).³⁷ Moreover, they are easy to apply in practice, raising only some needs for further clarification with respect to rules for affixing the CE marking on UCMP devices - a subsystem made sometimes up of several components. As for the drafting of the EU DoC, 79% of survey respondents declare there are no issues in relation to its content.³⁸

Overall 79% of survey respondents and 64% of Public Consultation respondents deem the different definitions provided in Directive 95/16/EC (Article 1(4)) clear, complete and up to date. Furthermore, according to 73% of survey respondents, the definitions provided in Article 2 of the new Directive 2014/33/EU are even clearer. It should be noted that Directive 2014/33/EU aligned the legal framework applicable to lifts to the New Legislative Framework (hereinafter "the NLF"). Therefore, a significant number of these definitions have been taken over from Decision No 768/2008/EC thus ensuring consistency with the respective legal frameworks applicable to other harmonised products. Nonetheless, the consultations revealed some issues, which may require additional clarification.³⁹

In particular, several stakeholders have raised issues regarding the precise definition of the **scope of the Lifts Directive**. While, pursuant to Article 2(5), the Lifts Directive applies to lifts, which are made available on the market for the first time, it does not cover modernisation activities conducted on existing lifts. Therefore, modernisation, maintenance, (software) updates and changes are regulated by the national legislation of the respective Member States. In the light of these elements, some stakeholders have indicated that they would welcome guidance on when a lift is no longer considered as a "*modernised old lift*" but as a new lift, thus requiring a CE marking.⁴⁰

Another issue identified in the study is related to the **definition of "installer"** as provided for in Article 1(4) of Directive 95/16/CE. This definition was also taken over by Directive 2014/33/EU in its Article 2(6). According to this definition, the installer is "*the natural or legal person who takes responsibility for the design, manufacture, installation and placing on the market of the lift*", i.e. the Directive uses the term "*installer*" instead of "*manufacturer*" of the person who places the CE marked lift on the market in the end of the 'manufacturing process'. Installation of a lift – its incorporation into a building or construction – is part of that process. Neither the old Directive, nor the new Directive separately defines the "*manufacturer of a lift*" which in theory could be used to refer to the operator applying for the EU type-examination certificate and not necessarily installing the lift on site. The study has pointed to the fact that today very often the manufacturer and the installer of a lift are two distinct economic operators. However, both Directives clearly indicate that the installer is the responsible economic operator for the compliance of the lift with the Directive.

³⁷ Evaluation of the Lifts Directive Study, Final report, page 55.

³⁸ Evaluation of the Lifts Directive Study, Final report, page 55.

³⁹ Evaluation of the Lifts Directive Study, Final report, page 55.

⁴⁰ Evaluation of the Lifts Directive Study, Final report, page 53.

Furthermore, Directive 2014/33/EU foresees the possibility for several economic operators to be involved in the supply chain of a lift in its Article 16(2) stipulating that *"where the person responsible for the design and manufacture of the lift and the person responsible for the installation and testing of the lift are not the same, the former shall supply to the latter all the necessary documents and information to enable the latter to ensure correct and safe installation and testing of the lift"*. In conjunction with Article 7 on obligations of installers, this provision indeed covers the situation where different persons are involved in the design/manufacturing and the installation/testing, and provides clarity on each party's responsibilities.

A third issue identified in the study is related to the delimitation of the concepts of "putting into service" and "placing on the market". While "placing on the market" of a lift is defined in Article 2(5) of Directive 2014/33/EU, the concept of "putting into service" mentioned in Article 3(1) thereof is not defined. This seems to contribute to a certain confusion of both concepts by some stakeholders. Thus, 43% of survey respondents⁴¹ claim that *"putting into service of a lift"* may occur a number of years after the lift has been placed on the market, in particular for large and complex projects. According to installers, this causes difficulties when either the legislation or the relevant hENs change between the moment the lift is placed on the market and the moment the said lift is put into service. These installers explain that they are bound by the contract signed before a possible change occurred, implying that they have to provide a lift complying with new requirements.⁴²

Article 4(1) of the Directive provides that *"Member States shall take all appropriate measures to ensure that the lifts covered by this Directive may be placed on the market and put into service only if they comply with this Directive"*. In regards to the concerns raised by the stakeholders, it should be noted that point 2.3. of the Blue Guide⁴³ clarifies that the concept of placing on the market refers to the moment when a product is made available for the first time on the Union market. It is at that moment that the conformity assessment procedure has been concluded and the product's compliance with the applicable EHSRs is established. At the same time, the reference to the concept of putting into service essentially serves to ensure that no additional requirements are imposed on lifts which have been installed correctly (i.e. in line with the specific technical solution assessed during the conformity assessment procedure). Therefore, even in case of a change of the legal framework, the reference point for the conformity assessment remains the moment of placement on the market. This is furthermore confirmed by Article 44 of Directive 2014/33/EU which lays down the transitional provisions between the old and the new Directive.⁴⁴

In the light of the above elements, it can be concluded that the confusions regarding the three areas of concern reported in the study are not attributable to an unclear or conflicting wording of the provisions of the Directive but rather to a certain misinterpretation of the Directive by some stakeholders.

⁴¹ Evaluation of the Lifts Directive Study, Final report, page 53.

⁴² Evaluation of the Lifts Directive Study, Final report, page 53.

⁴³ *The "Blue Guide" on the implementation of EU product rules*, 2016; 2016/C 272/01.

⁴⁴ Pursuant to Article 44(1) *"Member States shall not impede the putting into service of lifts or the making available on the market of safety components for lifts covered by Directive 95/16/EC which are in conformity with that Directive and which were placed on the market before 20 April 2016."*

After having been made aware of the above problems and in order to provide the necessary clarification, the Commission has published in June 2018 a revised version of the Guide to the application of the Lifts Directive.⁴⁵ In this regard, it should be noted that already 76% of the survey respondents have expressed satisfaction with the clarity of the previous versions of the guidance documents to the Directive and in particular the Guide to Application of the Lifts Directive. The Commission will monitor further issues raised by stakeholders in relation to the interpretation of the Directive and develop together with the stakeholders (most notably within the framework of the Lifts Working Group) further specific guidance documents if necessary.

5.2. Effectiveness

To assess the effectiveness of the Directive, the evaluation has looked into the contribution of the Directive towards the achievement of its main objectives, namely to ensure the free movement of compliant lifts and safety components for lifts throughout the EU and also to guarantee that lifts and safety components for lifts within the scope of the Directive are safe for users and maintenance personnel.

5.2.1. Overall contribution of the Directive to the achievement of its main objectives

5.2.1.1. Overall contribution of the Directive to the achievement of its main objectives

Both the market analysis and stakeholder consultation conducted within the framework of the present evaluation have shown that the Directive has had a significant positive impact on reducing barriers to trade.

Nearly all the stakeholders (96% of survey respondents) consider that the Directive facilitated the free movement of lifts and safety components, and 75% deem this is specifically achieved through a reduction of different requirements across Member States.⁴⁶

This general perception of the stakeholders is also supported by the available market data which clearly indicates an overall growth of the value of sold production of lifts between 1995 and 2015.

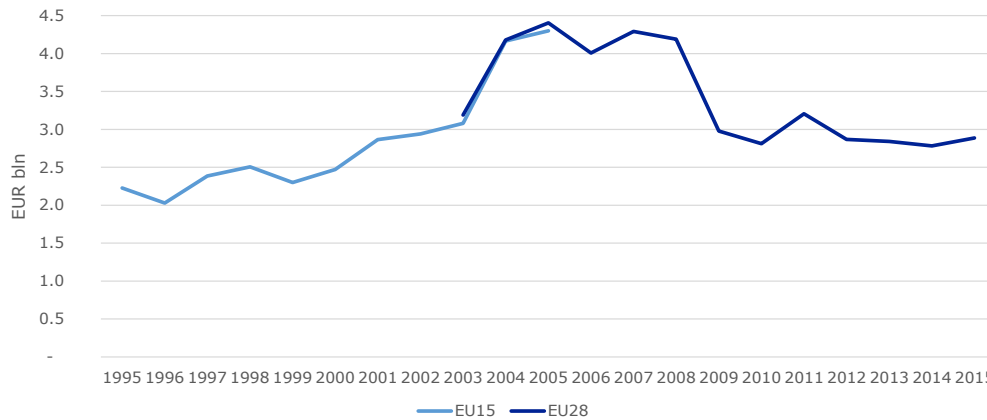
However, as shown in Figure 3 below, this overall growth is unevenly distributed throughout the reference period: the steady growth between 1999 and 2005 is followed by a period of stagnation between 2005 and 2008 before returning again to a period of a more moderate growth.

In the period preceding the entry into force of Directive 95/16/EC (1995-1999), the annual average growth rate of the overall sold production of lifts was equal to +1%. After the entry into force of that Directive, the value of sold production of lifts grew on average by 14% in the EU15 from 1999 to 2005. During the period between 2006 and 2015, sold production decreased annually on average by 3% in the EU28 including a sharp decrease (-29%) between 2008 and 2009, possibly due to the financial and real estate market crisis.

⁴⁵ <https://ec.europa.eu/docsroom/documents/29961>

⁴⁶ Evaluation of the Lifts Directive Study, Final report, page 63.

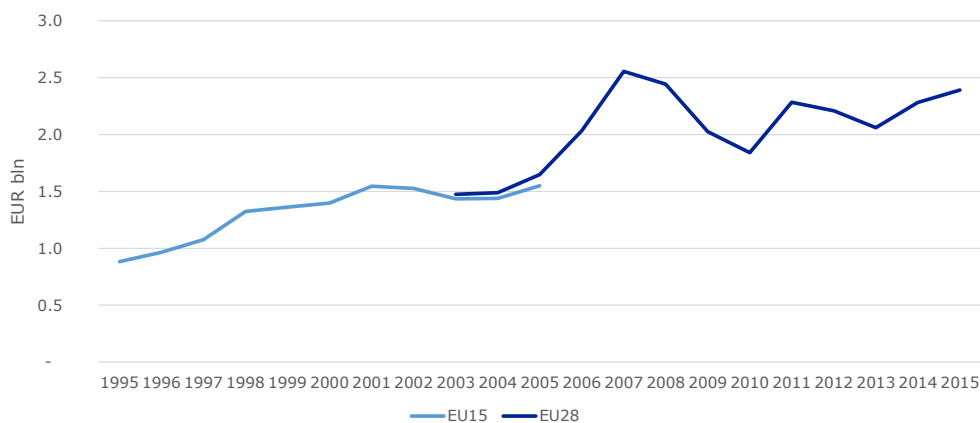
Figure 3 – Value of sold production of lifts in scope of the Directive in Europe between 1995 and 2015 (nominal values)⁴⁷



Source: EY, Technopolis Group and VVA Consulting estimates based on Eurostat Prodcop

The overall trend with regards to the production of safety components also points towards an overall growth of the value of sold production between 1995 and 2015. However, unlike lifts, the growth of the lift safety components' value has been more steady and evenly distributed throughout the reference period. Between 1995 and 1999 the annual average growth rate of the overall sold production of safety components was equal to +14%. After the entry into force of Directive 95/16/EC, the value of sold production of lift safety components grew annually on average by 2% in the EU15 from 1999 to 2005. Considering the period between 2006 and 2015, sold production continued to increase annually on average by 2% in the EU28. This included a sharp decrease (-17%) between 2008 and 2009.

Figure 4 – Value of sold production of lift safety components in scope of the Directive in Europe between 1995 and 2015 (nominal values)⁴⁸



⁴⁷ The figure presents data within the maximum available timeframe. The “EU15” and the “EU28” are to be considered as geographical aggregates.

⁴⁸ Evaluation of the Lifts Directive Study, Final report, page 63.

Source: EY, Technopolis Group and VVA Consulting estimates based on Eurostat Prodc

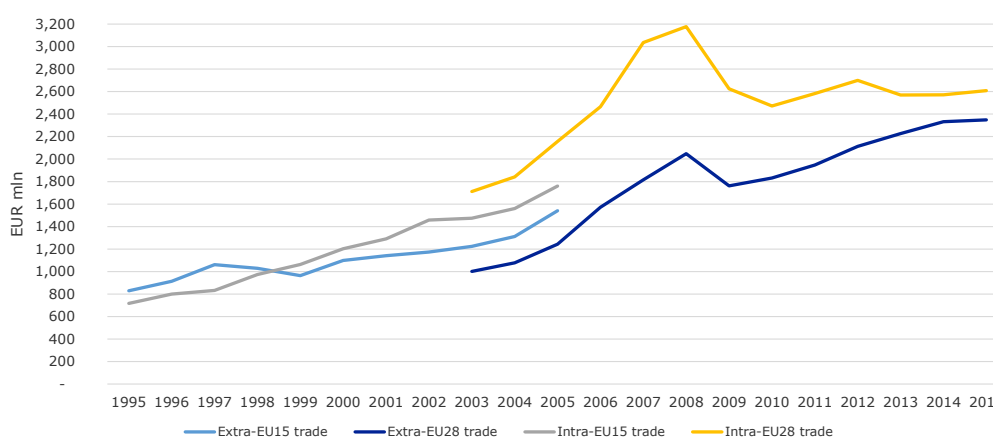
A comparison between intra- and extra-EU trade of lifts and their components shows how the former is impressive with respect to the latter, although this difference is reducing over time.

Between 1995 and 1999, the annual average growth rate of extra-EU trade of products in the scope of the Directive was equal to +4%, while the annual average growth rate of intra-EU trade was equal to +12%.

After the entry into force of Directive 95/16/EC, the extra-EU trade grew annually on average by 8% from 2000 to 2005. After the enlargement to EU28, the average annual growth rate of extra-EU trade was 5% between 2006 and 2015.

Regarding the intra-EU trade, the average annual growth rate in the EU15 was on average 9% between 2000 and 2005, and 1% in the EU28 from 2006 to 2015.

Figure 5 – Intra- and extra-EU trade in products within scope of the Directive between 1995 and 2015⁴⁹



Source: EY, Technopolis Group and VVA Consulting estimates based on Eurostat Prodc

The above data indicates that the Directive had at least potentially a positive impact on reducing barriers to trade.

Based on the evidence gathered, the Directive contributed to an effectively operating internal market for the products in its scope.

90% of survey respondents think that the Directive contributed to the establishment of legal certainty and a level playing field for companies in the EU. By way of example, an implementing authority observes the Directive created a level playing field for all NBs, whose requirements for accreditation have been harmonised, particularly with Directive 2014/33/EU.

Moreover, notwithstanding the few discrepancies identified across Member States in the application of the Directive it substantially contributes to the legal certainty as well as to the establishment of a level-playing field across the EU, which both ensure an effectively operating internal market. To confirm this, 71% of survey respondents declare that national

⁴⁹ Evaluation of the Lifts Directive Study, Final report, page 63.

implementations have no impact on the effectiveness of the Directive nor do they influence regulatory or administrative costs across Member States.⁵⁰

5.2.1.2. Contribution to the objective of ensuring the safety of lifts and safety components

Accidents related to lifts can involve users or maintenance personnel. They can be lethal (i.e. leading to death), serious (i.e. leading to hospitalisation) or minor.

The overall perception of the stakeholders is that the Lifts Directive has contributed to the improvement of the level of safety. Thus, lift safety is perceived as satisfactory by 97% of survey respondents and by 91% of Public Consultation respondents. In addition, 94% of survey respondents think the Directive increased lift safety.⁵¹

This perception of increased levels of safety is supported by some evidence indicating a trend towards a reduction of the number of lift-related accidents.

Data on lift-related accidents throughout the EU is fragmented and statistics from Member States often appear to lack details on the precise causes of accidents (e.g. lift misuse rather than lack of lift safety) and they do not distinguish between accidents involving lifts subject to the Directive and “existing lifts” (i.e. lifts installed before the entry into force of the Directive). Furthermore, statistics from Member States do not cover the same reference periods and do not necessarily consider the same types of accidents in their respective national reports. Hence, these data can only provide selected, anecdotal indications on the number of accidents and trends over time in individual countries. The most significant limitation comes from the fact that available data often do not distinguish clearly between the concerned groups (users or maintenance personnel or both altogether), between the types of lifts concerned (lifts falling inside the scope of the Directive or outside its scope i.e. installed prior to its entry into force) and between the types of accidents (lethal or non-lethal and in the second case the degree of gravity of the accident). These data cannot, therefore, be compared or aggregated. Nevertheless, some trends can be observed when analysing these data together.

A preliminary observation before analysing the available data on lift related accidents concerns the evolution of the new lift installations in recent years. This data is particularly relevant as the evolution of the stock of installed lifts should be analysed together with the evolution of the number of lift-related accidents. This is the only way to distil an accurate ratio of accidents in proportion to the number of lifts. Thus, according to data provided by ELA, in 2015 there has been an average increase of 16% of the newly installed lifts in a number of Member States.⁵² Despite an average overall decrease of 1% over the period 2010-2015, the disaggregated data indicates that opposite trends existed in 2010 and 2015 regarding new lift installations in the largest EU national markets (Spain and Italy) and the other Member States. Thus, while in Spain and Italy, a much higher number of lifts were being installed in 2010 in comparison to the other Member States, this trend has been inversed in 2015 when Germany accounted for 17% of the

⁵⁰ Evaluation of the Lifts Directive Study, Final report, page 63.

⁵¹ Evaluation of the Lifts Directive Study, Final report, page 64.

⁵² Evaluation of the Lifts Directive Study, Final report, page 35.

total new installations in Europe.⁵³ This data clearly shows that the stock of installed lifts in the EU has been steadily increasing until 2015.

Regarding accident-related data on the other hand, reports are available from 6 Member States (Greece, France, Italy, the Netherlands, Germany, and Spain) which contain data on accidents involving lifts in the period around 2009-2013. It should be noted that these reports do not necessarily use the same reference periods, the same method of calculating the ratio of accidents, nor the same definition of "lift accident". Furthermore, neither of these reports indicates whether these accidents involve the same users, maintenance personnel or both groups altogether. Nevertheless, the information contained in these reports provides indications that the number of lethal accidents remains very low and has been reduced over time. For example, between 1998 and 2009, there were in total 41 lethal accidents related to lifts in Greece varying between 1 and 8 annually⁵⁴ being equivalent to less than 0,20 accidents per 100 000 lift units in service. In France the total number of lethal accidents reported between 2001 and 2013 is 44.⁵⁵ The number of accidents varied between 0 and 8 annually representing up to about 0,16 accidents per 100 000 lift units. The annual number of all reported accidents in France diminished from 3 200 in 2008 to 1 840 in 2013. In the Netherlands the number of all accidents related to lifts was very low varying between 3 in 2011 and 2013 to as high as 9 in 2014 over the period from 2011 to 2015⁵⁶ equalling 0,3 to 1,0 accidents per 100 000 lifts. In Germany the number of all accidents declined over the period 2011-2013 from 178 to 133 incidents representing reduction from 2,7 to 1,9 accidents per 100 000 lift units while in Spain the number of all accidents decreased from 5,1 (2012) to 3,0 (2013) accidents per 100 000 lift units.⁵⁷

In contrast to the above, according to ELA the number of accidents over the total number of installed lifts has been increasing at an annual average rate of 7% over 2008-2015. However, the relevance of this distinct information is questionable, as these data relate to both accidents involving "existing lifts" (which are outside the scope of the Directive) as well as lifts covered by the Directive. Furthermore, it has not been specified whether this increase concerns accidents involving users, maintenance personnel or both groups together.

A possible approach towards identifying trends in the evolution of the number of lift-related accidents is to focus specifically on those accidents involving maintenance personnel. The reason for this is that such accidents are much better reported and documented as they constitute work-related accidents and as such they trigger a specific follow-up (maintenance personnel can benefit from specific social security services). Conversely, accidents involving users are mostly reported by users themselves and in general, no specific follow-up is ensured. Therefore, the reliability of such data can be seen as questionable.

⁵³ Evaluation of the Lifts Directive Study, Final report, page 35.

⁵⁴ Zarikas, V. and others (2013), 'Statistical survey of elevator accidents in Greece', Safety Science, Vol. 59, pp. 93–103.

⁵⁵ Fédération des ascenseurs (2014), 'Situation économique du secteur', mai 2014, p. 10.

⁵⁶ Evaluation of the Lifts Directive Study, Final report, page 47.

⁵⁷ Evaluation of the Lifts Directive Study, Final report, page 47-48.

Thus, according to statistics collected in the framework of an EU Commission's study (2007)⁵⁸ there were 1 339 lift accidents involving maintenance personnel within eight EU Member States between 2001 and 2005.

Furthermore, according to the evaluation study (based on PRODCOM and ELA data), the number of lift-related accidents involving maintenance personnel compared over the existing installations has been decreasing at an annual average rate of 3% between 2008 and 2015.⁵⁹

Based on these concurring sources, the study has come to the conclusion that the trend towards a reduction of the lift-related accidents involving maintenance personnel is indicative of the improvement in lift safety levels.⁶⁰ This conclusion can be further reinforced by a comparison between the evolution of the stock of lifts and the number of accidents during the period 2010-2015. Data regarding both the stock of lifts and the number of accidents has been provided by ELA. Bearing in mind the overall increase of the stock of installed lifts over the period, the 7% increase in lift accidents indicated by ELA should be relativized. Unfortunately, the limited data available does not allow to draw quantitative conclusions in this regard.

In the light of the above, the evaluation has concluded that the accident related data is not entirely reliable. One of the main reasons for this is the fact that the said data does not distinguish between lifts within the scope of the Lifts Directive and outside its scope. Nevertheless it can be concluded that the Lifts Directive has been overall effective in improving the level of protection of health and safety of maintenance personnel. As far as users are concerned, the data available does not enable drawing any quantitative conclusions. Nevertheless, the data provided by the national reports in particular suggest that the impact of the Directive is in no circumstances adverse and the Directive could even have brought a minor contribution to the improvement of the level of lift safety.

5.2.2. Assessment of specific issues related to the effective implementation of the EHSRs

The wording and content of the Directive's provisions and annexes were assessed on how they impact the effectiveness of the Directive. No major concerns were identified with regards to the provisions on the defining the tasks, obligations and rights of all stakeholders concerned by the Directive (i.e. safety component manufacturers, lift installers, Public Authorities – namely Member State implementing authorities and MSAs, NBs).

Some stakeholders have pointed towards specific risks which have not been addressed under the Lifts Directive such as the risk of fire. However, this specific risk is addressed by the EHSRs of the Machinery Directive⁶¹ which apply to lifts. Therefore, these concerns are not directly linked to the wording of the Lifts Directive.

⁵⁸ Health and Safety Laboratory (2007), *Technical assessment of means of preventing crushing risks on lifts subject to Directive 95/16/EC*.

⁵⁹ Evaluation of the Lifts Directive Study, Final report, page 46, figure 19.

⁶⁰ Nevertheless, the study pointed out the increase in the skills of maintenance personnel and the potential improvements in the national legislation on safety at the workplace could be also contributing factors to this decrease.

⁶¹ Directive 2006/42/EC on Machinery, Annex I, EHSR 1.5.6, 3.5.2 and 5.5.

Nevertheless, the evaluation has identified two issues which are related to the interpretation by the stakeholders of the EHSRs: the first one is the provision on the risk of crushing and prior approval and the second one is the provision regarding the lift accessibility for disabled persons.

5.2.2.1. Effectiveness of the implementation of the provision on the prevention of the risk of crushing and prior approval

As already mentioned in Section 3.1. above, this EHSR requires lift designers to provide free space or refuge when the lift is at one of its extreme positions (extreme top or extreme bottom position in the lift shaft/well) in order to prevent the risk of crushing. According to 45% of survey respondents and to 59% of respondents to the Public Consultation, the risk of crushing is not properly addressed by the Directive. According to 42% of survey respondents, the wording of this EHSR leaves little room for choice how to address this risk thus disregarding the New Approach principles.⁶²

In addition, concerns have been expressed regarding the “prior approval” provision (third paragraph of EHSR 2.2) which constitutes an exception to the requirement to provide for a free space/refuge in the extreme top or bottom positions of the lift shaft.⁶³ This exception is particularly relevant for lifts which are to be installed in existing buildings where the limitations of the existing structures might not allow to provide free space or refuge.

The wording of the “prior approval” provision suggests that its application is not limited to existing buildings (“[...] *particularly in existing buildings* [...]”). In this regards, the evaluation study outlined the concerns of some stakeholders related to the scope of application of this provision.⁶⁴

The concerns expressed by the stakeholders evolve around two main issues with this provision: on the one hand, the criteria used by Member States to grant or refuse a prior approval are not harmonised (thus leading to divergent practices) and, on the other hand, by allowing Member States to grant installers permission to use alternative means, different safety standards might emerge both across the EU and even within individual Member States.

With regards to the concern related to the lack of harmonised criteria to be used by the different Member States when granting prior approval, the evaluation has indeed identified diverging practises across the Member States. However, fragmented data on the respective national practices only covers seven Member States which does not allow to establish clear trends across the entire EU.⁶⁵ In particular, data on the number of prior approvals granted by each Member State is lacking except for Cyprus which declares to have granted a prior approval on two occasions.

⁶² Evaluation of the Lifts Directive Study, Final report, page 50.

⁶³ Pursuant to the third paragraph of ESHR 2.2. of Annex I to Directive 2014/33/EU : “*However, in specific cases, in affording Member States the possibility of giving prior approval, particularly in existing buildings, where this solution is impossible to fulfil, other appropriate means may be provided to avoid this risk.*”

⁶⁴ Evaluation of the Lifts Directive Study, Final report, page 112.

⁶⁵ Evaluation of the Lifts Directive Study, Final report, page 147.

The available data nevertheless suggests that the Member States' practices diverge on several points: application to new and/or existing buildings, requirement to prove the impossibility to provide free space, involvement of a NB and also the possibility to choose the specific alternative solution to be used to prevent the risk of crushing.

The later constitutes the second point of concern for stakeholders. A number of stakeholders, (mainly economic operators) across the EU have taken the view that the third paragraph of EHSR 2.2. should be either amended in order to introduce a clear set of criteria for granting prior approval or it should be repealed altogether.⁶⁶ Those stakeholders that advocate for the repeal of this provision mainly do so because of alleged risk for distortion of competition and hindering of innovation. On the other hand, those stakeholders that prefer to see this provision amended stress that while is necessary and relevant, the application of the third paragraph of EHSR 2.2. should be limited exclusively to existing buildings.

However, there could have been a misconception among the stakeholders concerning the interpretation of EHSR 2.2. as a whole and the "prior approval" procedure in particular. In fact, it should be noted that EHSR 2.2 is in line with the New Approach as its paragraph 1 defines the objective to be achieved but at the same time does not prescribe the technical specification to be applied. While it is true that the second paragraph of EHSR indicates what is considered to be the most effective way to achieve this objective, the third paragraph on the prior approval actually introduces a certain flexibility as it enables installers to opt for alternative technical solutions. In any case, this procedure does not allow to derogate from the safety objective but enables, the adoption of other appropriate means to avoid the risk of crushing.

As a stakeholder had rightly observed within the framework of the evaluation study's consultations, *"the Directive leaves "room for manoeuvre" to cover the risk of crushing, the problem being that not all MS apply this provision in the same way, and this is the issue."*⁶⁷ Therefore, despite its particular structure in three paragraphs, EHSR 2.2. is in fact in line with the New Approach principles.

Improved coordination at the level of the MSAs (especially in the framework of the ADCO Group) could contribute the emergence of a more coherent and uniform application of this provision at EU level. This improved coordination between the MSAs could be further complemented by specific standardisation activities.

The Commission will further investigate the practical implications of the divergent approaches by the Member States on the effective application of the Directive. In addition, the Commission will support within the boundaries of its competences the coordination between the MSAs as well as any standardisation activities specific to this provision.

5.2.2.2. Effectiveness of the implementation of the provision regarding lift accessibility for disabled persons

The Directive ensures non-discriminatory access conditions for users with disabilities through provisions set in paragraphs 1.2 and 1.6.1 of Annex I, which are related only to the minimum size of door entry, the dimensions of the lifts car and the position of control panels.

⁶⁶ Evaluation of the Lifts Directive Study, Final report, page 148.

⁶⁷ Evaluation of the Lifts Directive Study, Final report, page 148.

However, the second paragraph of EHSR 1.2. does not require that lifts are made accessible for disabled persons in all circumstances but only "*where the lift is intended for the transport of persons, and where its dimensions permit*". If this is the case, the Directive sets out harmonised accessibility requirements for the lift car.

According to 71% of survey respondents the provisions on lift accessibility to disabled persons have been implemented differently across the EU.

However, these results do not distinguish between the accessibility requirements applicable to lifts and the accessibility requirements applicable to the entire buildings. Unlike the former, the later have not been harmonised at EU level and therefore, they fall under the realm of competence of Member States.

As a result, Member States have sometimes introduced specific provisions to complement the EHSRs related to lift accessibility for persons with disabilities. Thus, different national practices for granting lifts accessibility to disabled persons have emerged inter alia depending on the type of building in which a lift operates (new or existing building), its function (public or private building), or its height (two or more floors). For example, some Member States have laid down provisions defining the minimum size of the lift car, while others refer to the standard EN 81-70.⁶⁸

In any case, 65% of survey respondents do not perceive the accessibility requirements for lifts to have any major impact on the implementation and on the effectiveness of the Directive.⁶⁹ In that sense, the additional national requirements which are sometimes introduced are not perceived by stakeholders as burdensome or hindering the internal market for lifts. As a matter of fact, 54% of them⁷⁰ even consider that there is a need to enshrine additional provisions for minimum compulsory awareness of manufacturers and installers in the legal framework for ensuring accessibility to lifts of disabled persons.

5.2.2.3. Effectiveness of the implementation of the provisions relating to the harmonised European standards

Nearly all the stakeholders (95% of the survey respondents) agree that development of hENs have been pivotal in ensuring an effective application of the Directive by all the actors involved. This support is also confirmed by the fact that no formal objections to hENs have ever been raised since the entry into force of Directive 95/16/EC.⁷¹

79% of the survey respondents acknowledge that the development of hENs constitutes an effective tool for promoting both the free movement of compliant lifts and components as well as for promoting a high degree of safety. The hENs are largely used as one of the main reference guide for ensuring compliance with the Directive.⁷²

⁶⁸ Evaluation of the Lifts Directive Study, Final report, page 139.

⁶⁹ Evaluation of the Lifts Directive Study, Final report, page 50.

⁷⁰ 49 out of a total of 90.

⁷¹ Pursuant to Article 11(1) of Regulation (EU) No 1025/2012, Member States and the European Parliament may raise a formal objection against a hEN if they consider that it "*does not entirely satisfy the requirements which it aims to cover and which are set out in the relevant Union harmonisation legislation*".

⁷² Evaluation of the Lifts Directive Study, Final report, page 59.

Nevertheless, some concerns have been identified regarding the wide-spread reliance on the hENs. In fact, despite the voluntary character of these standards they are often perceived as de facto mandatory by economic operators and in particular by SMEs. Generally, the latter tend to rely (nearly exclusively) on hENs as they provide a much less expensive alternative for demonstrating compliance with the Directive than providing their own technical specifications. SMEs generally have rather limited resources available for R&D purposes and thus relying on the technical solutions provided by the hENs (which are generally reflecting the state-of-the-art) is more cost-effective than developing own solutions. Nevertheless, due to the voluntary nature of hENs SMEs wishing to advance an innovative solution on the market, which is not covered by a hEN, are free to do so.

Another issue raised within the framework of the present evaluation is related to the lengthiness of procedure for adoption of the hENs. In fact, 75% of respondents to the Public Consultation identified as a drawback the sometimes lengthy procedure needed by CEN to develop hENs.⁷³ Therefore, hENs might not always be able to cope with the speed of technological progress. However, it should be noted that compliance with the hENs is not mandatory and therefore they cannot in principle constitute barriers to innovation. The Commission is committed to collaborate closely with the ESOs within the boundaries of the framework laid down by Regulation (EU) 1025/2012 so as to ensure the smooth and swift functioning of the standardisation activities in the Lifts sector.

Finally, SMEs might be potentially disadvantaged by the way the hENs are developed. Some stakeholders have raised their concerns regarding the inclusiveness of the process of development of hENs in which SMEs are not necessarily well represented. While the Commission is committed to involve the broadest possible range of stakeholders in the standardisation activities, the question of the representation of SMEs in the process of development of hENs relates to the internal organisation of the relevant ESOs which are independent private bodies.

5.2.2.4. Effectiveness of the implementation of the conformity assessment procedures

The study concluded that conformity assessment procedures represent one of the main strengths of the Lifts Directive.⁷⁴ The possibility for installers and manufacturers to choose one (or more) of the different conformity assessment procedures fully matches the needs of operators to achieve compliance.

Moreover, conformity assessment procedures cover all production phases and act as a sort of “checklist” to ensure that all steps are covered and comply with the Directive’s EHSRs. Therefore, despite being reported as the major compliance cost stemming from the Directive (see section 5.3.1), 92 % of survey respondents recognise the effectiveness of conformity assessment procedures to ensure product compliance with the EHSRs.⁷⁵ Furthermore, according to some stakeholders, the application of the Directive raised fewer problems than most other New Approach Directives thanks to the conformity assessment procedures harmonised under the Directive. These procedures indeed require all lifts to be assessed by NBs before being

⁷³ Evaluation of the Lifts Directive Study, Final report, page 60.

⁷⁴ Evaluation of the Lifts Directive Study, Final report, page 61.

⁷⁵ Evaluation of the Lifts Directive Study, Final report, page 61.

placed on the market, which the evaluation identified as a factor relevant to the low extent of product non-compliance in the Lifts sector.

5.2.2.5. Effectiveness of the implementation of the provisions on enforcement and market surveillance

The market surveillance is conducted once the products have been placed on the market. Thus, the market surveillance, which is the *ex-post* compliance check, is complementing the conformity assessment which is the *ex-ante* compliance check. Unlike the conformity assessment which is entrusted to the NBs, the responsibility for conducting the market surveillance lies with the Member States and more specifically with their respective Market Surveillance Authorities ("MSAs"). Also, unlike the conformity assessment procedures which have been harmonised by Decision 768/2008 (and then taken over in the Lifts Directive), the Directive does not harmonise the market surveillance procedures. Therefore, Member States are free to organise their market surveillance activities. However, this has the adverse effect that today the implementation of market surveillance activities across the Member States is very uneven and there is a general lack of resources.

The available information shows that the level of non-compliance in the sector is very low. This conclusion is shared by 87% of the stakeholders consulted within the framework of the study and the data collected for the report on market surveillance activities.

This overall high level of compliance can be credited also to the conformity assessment procedures which impose that all lifts must be assessed by one or several third party assessment bodies (the NBs) before being placed on the market. Therefore, it should be concluded that the high level of compliance should be achieved by the effective conjunction of the *ex-ante* (conformity assessment) and *ex-post* (market surveillance) compliance checks.

Nevertheless, some barriers to the enforcement of the market surveillance have been identified. However, it should be noted that these barriers are not attributable to any shortcomings in the legal framework. Instead, these barriers are related to the resources allocated to market surveillance activities by the Member States and the coordination of the said activities. Firstly, Member States report a lack of resources for conducting market surveillance in the lifts sector, which, in turn, may hamper effective enforcement. A second barrier of effective enforcement is the differences in the implementation of market surveillance activities in the Member States.⁷⁶ In order to be effective, the level of enforcement needs to be uniform across the EU.

Regarding the resources affected to market surveillance activities, the study has identified certain discrepancies between the different Member States. Thus, in 2013, only four MSAs⁷⁷

⁷⁶ Data gathered within the framework of the Evaluation Study indicate that there are discrepancies between the market surveillance authorities in different Member States in terms of budget allocated to these activities, the proactive or reactive approach of the different MSAs, the number of inspections per year etc. For further detailed information c.f. Evaluation of the Lifts Directive Study, Final report, page 158.

⁷⁷ Bulgaria, Denmark, Finland and Hungary.

have declared to have a budget specifically dedicated to activities in the lifts sector and five⁷⁸ had dedicated staff/inspectors to perform market surveillance of lifts and safety components.

On the other hand, the priority given to market surveillance in the lift sector differs across the Member States.⁷⁹ Thus, some Member States such as Spain allocate medium priority to lift surveillance, while others such as the Netherlands allocate high priority. Such lack of uniformity across Member States could potentially lead in long run to the creation of weaknesses, which could, at least in theory, result in lower compliance. In this regard, 78% of survey respondents and 81% of respondents to the Public Consultation state that market surveillance activities in the sector are not fully effective.⁸⁰

Overall, the Directive has been uniformly transposed across the Member States, and there is no evidence of any transposition difficulties. As for its implementation, the analysis identified some discrepancies across Member States. A number of them (i.e. those related to the EU type-examination certificate, content of the EU DoC, NBs' notification procedures) have been addressed in the new Directive.

5.3. Efficiency

To assess the efficiency of the Directive, the costs which it entails for the different stakeholders categories (MSAs, NBs and EOs) were analysed against the benefits resulting from the application of the Directive for the economic operators (EOs), users and maintenance personnel. A detailed overview of the costs and benefits identified in the framework of the evaluation is available in Annex 5 to the present document.

Unfortunately, a general limitation on data hampered a thorough assessment of the Directive's efficiency. Very few stakeholders were able to provide quantitative data, and those who did, provided mostly rough estimations. Therefore, this section presents only anecdotal evidence, whenever available, which should be considered as purely indicative. The analysis remains therefore mainly qualitative.

Despite the above methodological limitations, there seems to be an overall consensus among stakeholders on the benefits outweighing the administrative and compliance costs.

The Directive improved the internal market by harmonising national procedures and hence reducing costs for economic operators. While larger companies benefit more than SMEs from the internal market, the overall positive opinions on the Directive are shared also by SMEs.

Also, evidence shows a general reduction in lift-related accidents over recent years, which could lead to think of an increase in lift safety. While the direct causal link with the Directive cannot be quantitative proved, it is common opinion of stakeholders that the Directive helped to increase safety.

⁷⁸ Bulgaria, Denmark, Finland, Greece and Hungary.

⁷⁹ Evaluation of the Lifts Directive Study, Final report, page 62.

⁸⁰ Evaluation of the Lifts Directive Study, Final report, page 62.

5.3.1. Costs entailed by the Lifts Directive

The main driver concerning costs comes from the *ex-ante* and *ex-post* controls that each product (either a lift or a safety component) must undergo before and after being placed on the market. The stakeholders concerned are: the Market Surveillance Authorities (MSAs), the Notified Bodies (NBs) the economic operators and users.

It should be noted that the great part of costs (for example, the conformity assessment by MSA/NB) were already present with the previous Directives and cannot be credited to the Directive 95/16/EC and Directive 2014/33/EU.

- Market Surveillance authorities

Market Surveillance Authorities mainly bear the **enforcement costs** due to recurrent market surveillance activities, withdrawal of non-compliant products from the market, assessment of NBs, and periodic communication to the Commission and other MS of their activities.⁸¹

MSAs' duties in terms of enforcement of the Directive's provisions were already foreseen in the previous Directives 84/528/EEC and 84/529/EEC. Thus, the costs of inspections could not be attributed directly to the Directive, since MSAs would have incurred them anyway. There is, however, a reduction of burden for MSAs, since NBs are now in charge of conducting the conformity assessment verifications.

The main source of costs for the Notified Bodies are related to the need to gather the necessary resources (human as well as material resources) to ensure the performance of the conformity assessments and the issuing of the EU-type approval certificates, cost for national accreditations, cost for purchase harmonised standards.

Directive 95/16/EC mandated the NBs to perform the conformity assessment procedures in the lift sector. Before that, under Directives 84/528/EEC and 84/529/EEC, the "EEC type-approval" was granted by the Member States authorities. Hence, Directive 95/16 did not introduce additional costs as the conformity assessment procedure was already existing under the old legal framework. Instead, the Directive shifted the responsibility for this procedure from the Member States authorities to NBs without significantly changing the scope of the obligation. However, it should be noted that today, the NBs can perform conformity assessments which are valid throughout the whole EU and their services may be solicited by EOs established in any of the Member States. Therefore, while the costs related to the performance of the conformity assessment are now borne by the NBs, they benefit in return from an EU-wide market and their activities are no longer limited to the territory of a single Member State.⁸²

- Notified bodies

However, NBs bear also some other specific costs:

⁸¹ MS are required to periodically inform the Commission on their market surveillance activities, including the inspections on the lift market. Costs due to information obligations as foreseen by Art. 7(1); Art. 9(1) and (3); Art. 11 were already due in Dir 84/528/EC and hence not assessed.

⁸² Before the entry into force of Directive 95/16/EC, the geographical competence of the MSAs which were entrusted with the performance of the conformity assessment procedures was limited to their respective Member State.

The primary source of costs for NBs is related to periodic fees due to **national accreditation procedures** or any of the other means to periodically prove their sufficient level of competence to the notifying bodies. These costs are not strictly derived from Directive 95/16/EC, since it does not require mandatory accreditation.

Evidence gathered from NBs in 8 MSs⁸³ indicates that the average annual cost for accreditation increase with the size: €625 for two micro NB (1% of their annual turnover), €1 500 (0,05% on the annual turnover) for one small NB and €3 800 (0,01% on the annual turnover) for seven medium and large NBs.

Training expenses are also a burdensome compliance cost. 16 respondents report an annual spending on training ranging between €500 (for micro NBs) and €12 000 (for medium and large NBs). In terms of NBs' annual turnover, it represents an average of 0,9% for three micro NBs, 0,55% for three small NBs, 0,12% for eight medium NBs and 0,03% for two large NBs.⁸⁴

The NBs may be required to buy (and update) harmonised European standards. This cost is quite relevant, especially for smaller NBs that usually buy singular standard/update.⁸⁵ However, larger NBs, which are usually active in several harmonised sectors may need to buy more standards. Therefore, they usually prefer to pay an annual flat-rate fee to a service provider in order to have access to any subsequent updated standards

NBs replies to the survey highlighted other types of costs (without any quantification). 49% claims additional costs for innovate their equipment and systems to comply with the Directive and 53% (n=24) underwent process re-engineering for the same purpose. Overall, 44% of NBs replying to the survey deem that costs to innovate equipment and systems would have been lower if the Directive had not been implemented.

- Economic operators

Economic operators (installers of lifts and manufacturers of safety components) are subject to several obligations at different stages: (i) in the design and production of the safety component; (ii) in the design phase of the lift, and (iii) in the lift installation phase. Costs for these economic operators are mainly derived from **both compliance costs and administrative burden**. The first are, for example, costs to ensure compliance with the EHSRs, to perform the conformity assessments and related to NBs' service fees, training specialised technicians, periodic purchase of hENs or the creation of alternative technical solutions. The Administrative burden includes costs related to the CE marking, the production of the EU Declaration of Conformity and its archive for the period required by the Directive (i.e. ten years).

Compliance costs are mainly related to the conformity assessment procedures (e.g. the EU type-examinations) and to on-site verifications performed by NBs (e.g. final inspection). Other compliance costs include training expenses, the purchase of updated harmonised standards,

⁸³ Data on accreditation costs and turnover have been gathered through ten interviews involving NBs from BE, DE, DK, FI, FR, IT, NL, SE.

⁸⁴ These figures are calculated as the ratio between the average expenditure on training activities related to the Directive and the annual turnover, as reported by interviewees and survey respondents.

⁸⁵ Data on costs for harmonized standards and turnover have been gathered through 14 interviews involving NBs from AT, BE, DE, DK, FI, FR, HU, IT, NL.

initial expenses for new equipment bought to comply with the Directive, re-engineering of internal processes to acquire a system certification and other expenses due to external consulting services. It is to be noted however that some of these costs (e.g. expenses for new equipment, re-engineering and external consulting services) might have occurred even without the entry into force of the Directive.

The overall burden of compliance costs varies considerably from one economic operator to another depending on: (i) the size of the company; (ii) the business structure; (iii) the preferred conformity assessment procedures.

Interviewed companies confirmed that **conformity assessment procedures** are the most burdensome provisions of the Directive and strongly depends on the type-examination chosen (see also section 5.2. above for details of the EU-Type examination).

The data gathered within the framework of this evaluation concerning the specific costs related to each conformity assessment module⁸⁶ does not allow to draw generalised quantitative conclusions regarding the costs entailed for the economic operators. Nevertheless, some trends can be observed.

Large firms tend to opt for the “full quality assurance” system (Module H) introduced by Directive 2014/33/EU which, although entailing higher initial costs and recurring annual inspection costs, is more convenient for large production volumes. In fact, the cost for this module does not depend on the number of lifts designed, being a one-off cost. Before Directive 95/16/EC the conformity assessment procedures were a variable cost proportional to production volumes. The introduction of Module H has reduced the marginal compliance cost for larger companies, which could spread the fix cost on a larger number of produced lifts. However, these costs should include other, non-identified internal costs (i.e. the labour cost of employees) and may change depending on the size of the company, but interviewees could not provide an estimate for such costs.

Lack of statistics on the number of conformity assessments, does not allow for a quantification of the cost reduction for enterprises using module H. However, according to some interviews the current compliance cost is estimated to be around half in comparison to the situation existing before the entry into force of Directive 95/16/EC.

Among the compliance costs entailed by the Lifts Directive, there are also **the costs related to the purchase of hENs**. Before the entry into force of Directive 95/16/EC, EOs, were required to comply with a multitude of national rules. Furthermore, they were not able to benefit from the presumption of conformity related to the compliance with hENs. Today, by proving compliance with a hEN, the EOs are presumed to comply with the relevant EHSRs and thus their product can circulate freely throughout the EU.

While this undoubtedly a benefit and a reduction of costs for economic operators, the evaluation study has nevertheless pointed out to the fact that this change may affect differently the companies according to their size. Thus, SMEs which generally tend to be less export-

⁸⁶ Data has been mainly provided by the relevant stakeholders (the economic operators). However, only a limited number of stakeholders provided such information which does not allow to draw generalised conclusions.

oriented and are usually active on the territory of a single Member State benefit to a lesser extent from this administrative simplification than bigger companies which operate in several Member States. Instead, the SMEs have to incur the costs of acquiring the standards as well as the successive updates thereof. However, it should be noted that the cost of acquiring these standards is lower than the costs associated with alternative technical solutions. Thus, it appears more cost-efficient for SMEs to opt for a demonstration of the compliance with the Directive by relying on the presumption of conformity.

Another concern in relation to SMEs which has been highlighted in the evaluation study is related to the fact that hENs are recognised by consumers as a reference for "high quality" and tend to become a de facto market standard. Hence, the application of the hENs which should be voluntary becomes de facto mandatory for all economic operators in the market, including SMEs that are generally less export-oriented. This may entail additional costs for SMEs respect to the cheaper national standards (that are less frequently updated). Nevertheless, should the SMEs wish to propose innovative solutions to the market, they are free to do so as the application of hENs is purely voluntary.

The frequent updates of hENs also imply additional costs for the economic operators, which do not have the same weight depending on the size of the company.

According to data available for 7 companies the cost for a single harmonised standard ranges between €50 and €250; their the annual expenses for harmonised standards account for 0.010% of annual turnover for larger companies to 0.035% for SMEs, though this incidence changes considerably on the specific products/services. Furthermore, larger companies, which are often active in more than one product sector and thus usually buy more standards, pay an annual flat-rate fee to a service provider in order to have access to any update and fix to a certain amount the overall costs for technical standards. For this reason, the weight of these expenses on SMEs is proportionally higher in comparison to larger companies. Nevertheless, as shown above, it is more cost-efficient for SMEs to acquire these hENs rather than to conduct the conformity assessment.

Another relevant source of costs is the **training of employees on issues related to the Directive**. While the initial costs borne by economic operators straight after the implementation of the Directive were directly linked to it, it is acknowledged by the companies that the recurrent annual training expenses are only partially due to the Directive. Unfortunately, interviewees were not able to disentangle the costs of training due to the Directive from other types of costs.

The provisions entailing **administrative burden** for drafting the **EU DoC** and affixing the **CE marking** are not particularly burdensome for lift installers. Similar requirements to prepare a DoC and mark each lift with an EEC marking were already present in the previous Directive 84/528/EEC, thus these costs are considered as not relevant for the purpose of this analysis.

Finally, the economic operators reported **other costs related to the Directive** (but not quantifiable). 58% of economic operators implemented some updates to their equipment/machineries and 59% undertook process re-engineering to be compliant with the Directive. 28% of economic operators reported that they requested external support from legal consultants to comply with the Directive.

5.3.2. Benefits entailed by the Lifts Directive

The potential benefits of the Directive for the economic operators are:

- A reduced administrative burden/compliance costs and harmonised level-playing field due to harmonisation of the regulatory framework;
- Increased internationalisation due to both harmonisation legislation and perceived high quality of EU product requirements.

The creation of a common EU regulatory framework for the lifts has reduced the intra-EU export costs because exporters are no longer required to perform any local testing or receive any additional authorisation from the local authority.

This benefit is generally recognised mainly from large operators (more export oriented than SMEs) and according to one of them the total burden of compliance costs is nearly half than the cost to comply to each national regulation.

However, SMEs are generally less export-oriented and are most often active in their national market and hence benefit to a lesser extent from the enhanced functioning of the Internal market.

Furthermore, 1/3 of the respondents⁸⁷ to the survey claim that such harmonised regulatory framework across Europe has supported companies to implement a stronger internationalisation strategy also in third countries. In fact, as reported by an Italian manufacturer of safety components, **the CE marking is increasingly perceived as a standard of quality by the industry beyond the EU borders**: buyers in Asia and US prefer products with a CE marking being a signal of higher quality and safety.

However, also in this case, large enterprises benefit more than SMEs and **their revenues from exports in the lift sector are higher in comparison to SMEs**.

These findings have been confirmed by the contributions received within the framework of the Open Public Consultation. All large enterprises with few exceptions have declared that the costs and benefits induced by the Directive are balanced and acceptable, with 14 of 63 indicating that benefits outweigh costs. Similarly, all large enterprises agree that the Directive has increased their competitiveness. Finally, 73% of survey respondents do not perceive that national practices incorporate costly or unnecessary requirements into products or structures covered by the Directive.⁸⁸

The benefits for consumers/users are considered in terms of a lower number of lift-related accidents and of increased lift accessibility for people with disabilities.

Unfortunately, available accident statistics do not allow to establish a direct causal link between the Directive and an increase in lift safety. Evidence shows that **the number of accidents involving maintenance personnel has been decreasing since 2008 possibly indicating a progressive improvement in lift safety levels**.

⁸⁷ 20 out of 63 survey respondents.

⁸⁸ Evaluation of the Lifts Directive Study, Final report, page 75.

In the same view, available data are not sufficient to quantitatively estimate the increase of disabled persons' well-being. However, the Directive should be seen as a great improvement with respect to **the previous regulatory framework that did not foresee any provisions targeting their needs**. For example, the Directive provides for rules on the dimension of the lift car and the position of lift controls. However, these provisions suffer some limitations as they vary considerably across Member States, thus granting different levels of accessibility and deemed as insufficient.

5.4. Coherence

The Lifts Directive is interrelated with other EU legislation, in particular the Machinery Directive⁸⁹, the Cableway Installations Regulation⁹⁰ and the Construction Products Regulation⁹¹. In order to assess the coherence, stakeholders were asked to identify overlaps, complementarities and additional requirements for products in other pieces of legislation relevant for lifts. The internal coherence of the Lifts Directive was also assessed, looking amongst others at the requirements for installers of lifts and manufacturers of safety components.

No major issues of overlaps or inconsistencies have emerged from the evaluation. On the contrary, a number of complementarities exist, and they cause no duplication of costs according to 88% of survey respondents.

The Machinery Directive has strong interrelations with the Lifts Directive. The hazards related to lifts that are not covered by the Lifts Directive are covered by the EHSRs of the Machinery Directive. Applicable EHSRs are also described in the NB-L's dedicated Recommendation for Use document, together with the reasons for their applicability to lifts. This contributes to making economic operators aware of the relation between the EHSRs defined in the Lifts Directive and those applied under the Lifts Directive but defined in the Machinery Directive.

Also with reference to the coherence of the Lifts Directive with the Cableway Installations Directive (replaced as of 21 April 2018 by Regulation (EU) 2016/424), the study did not identify any overlaps or inconsistencies as their scopes are mutually exclusive. The study referred to the concerns raised by a few isolated stakeholders regarding the interface between the Lifts Directive the old Cableway Installation Directive⁹². In particular, according to one stakeholder the distinction between "inclined lifts" and "funiculars" need to be further clarified. This issue was discussed during a meeting of the Standing Committee for the Cableways Directive (CABL-SC) and it was agreed that these concerns can be clarified by means of improved guidance.

With regard to the Construction Products Regulation, any reference was removed in the new Lifts Directive 2014/33/EU. The relation between the two areas of legislation, considering that a

⁸⁹ Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC.

⁹⁰ Regulation (EU) 2016/424 of the European Parliament and of the Council of 9 March 2016 on cableway installations and repealing Directive 2000/9/EC is already in force and will become fully applicable on 21 April 2018.

⁹¹ Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC.

⁹² Evaluation of the Lifts Directive Study, Final report, page 77.

lift installation has an interface with the building or construction where it is installed, is dealt with through the Lifts Directive's Article 2(2) that introduces a two-way flow of information between the lift installer and the person responsible for the work on the building or construction.

The internal coherence of the Directive has been assessed by looking specifically at requirements for lift installers and safety component manufacturers. No overlapping rule has been identified and the definition of "safety component manufacturer" and "lift installer" are overall clear, with clearly identified responsibilities. In addition, the alignment of the Lifts Directive with the NLF has significantly contributed to clarify the requirements for all economic operators concerned.

5.5. EU added value

As part of the Union harmonisation legislation, the Directive aligned the former national legislations relating to the lift sector. Even though a baseline scenario on national legislation in force before the full applicability of the Directive could not be reconstructed, a number of factors allow to conclude that the Directive did bring additional value compared to what would have been achieved at national level in the context of multiple deviating provisions.

A large majority (94%) of respondents to the survey recognise the EU Added Value of the Directive, especially in terms of enhanced free circulation of lifts and safety components and of their increased safety.⁹³

The study has concluded that the introduction of the Directive and the New Approach has supported innovation thanks to the flexibility of its EHSRs. According to 94% of survey respondents, the Directive has stimulated the European enterprises' propensity to innovate. It increased the European lift sector's competitiveness with respect to global competitors according to 84% of respondents. The trend in the number of patents granted in the sector since 1995 and in the years immediately after the entry into force of the Directive up to 2004 confirms this. Without a harmonised legal framework, a fragmented EU lift market would not be as competitive on the world stage.

The internal market legislation has, in the case of the lift industry, indeed acted as a "catalyst for promoting innovation". First of all, there has been a positive impact on innovation, since the economies of scale generated by product standardisation allowed new investments in R&D. Second, new demand for certain products has been created by EHSRs over the years. This was the case for instance of the Directive's EHSR 4.5 relating to the incorporation of "two-way means of communication" in new lift units, which were reported to have boosted the demand for emergency telephone systems.

Alongside the stakeholders' perception, the EU Added Value of the Directive in terms of enhanced free movement of lifts and safety components is confirmed by the increasing relevance of intra-EU trade since 1995, which suggests an improvement in the conditions for placing lifts and safety components on the market due to the introduction of the Directive. The

⁹³ Evaluation of the Lifts Directive Study, Final report, page 79.

hENs and EHSRs have been important in this sense, as recognised in particular by Member States that accessed the EU after the entry into force of the Directive.

The EU added value of the Directive is further confirmed since, through harmonising EHSRs for lifts and obligations for the relevant economic operators, it overall reduced the costs for complying with the legislation, if compared to the previous regulatory framework. This is especially true for companies that were already operating cross-borders.

6. CONCLUSIONS

The evaluation covered the performance of the Lifts Directive since the entry into application of Directive 95/16/EC in July 1999. It assessed the relevance, effectiveness, efficiency, coherence and EU added-value in order to verify whether it meets its objectives and provides the mechanisms to deal with future changes in the business environment.

The main conclusion of the evaluation is that the Directive is functioning properly and is contributing positively to its main objectives of ensuring an effectively operating internal market for safety components and lifts and of improving the health and safety of lift users and maintenance personnel.

The evaluation has been supported by an evaluation study which itself has been mainly based on desk research and field research using a number of tools such as an Open Public Consultation (Public Consultation), targeted surveys, interviews and a workshop organised in the context of the Lifts Working Group. A broad range of stakeholders (Member State authorities in charge of the implementation of the Directive, MSAs in charge of the enforcement of the Directive, NBs, lift installers and safety component manufacturers, including SMEs, and related industry associations) were involved in these activities in order to gather the most representative results.

The main limitations which the evaluation has faced are related to the availability of sufficient quantitative data allowing to reconstruct the baseline scenario, the lack of official quantitative data on the lift-related accidents at EU level, the lack of sufficient data on market surveillance in the lift sector as well as the low response rate to the targeted survey questions collecting data for the CBA. In order to mitigate these limitations, the available qualitative data was analysed together with the available quantitative data in order to identify overall trends.

As market surveillance is entrusted to the Member States and the Directive does not provide for any reporting mechanisms, the Commission does not have the tools to gather detailed country-specific data on lift-related accidents and market surveillance activities. However, the Commission is committed to work closely with the MSAs by making use of all of the available coordination mechanisms such as the coordination between the ADCO group and the Lifts Working Group.

Looking more specifically into the conclusions of the evaluation, firstly the Directive's objectives are still considered to be **relevant**. The Directive demonstrated to be able to align to technological developments occurred in the lift sector and to take into account risks related thereto.

While the Directive is perceived as overall **clear** by stakeholders, some issues have been identified within the framework of the evaluation. In particular, some of the definitions such as “lift installer” and the concepts of “putting into service” and “placing on the market”. Finally, some concerns have been raised regarding the precise definition of the scope of the Directive. However, the evaluation has concluded that these concerns are not to be attributed to unclear or conflicting wording within the Directive, but rather to certain difficulties in the interpretation. Therefore, while some issues have been clarified by the new Directive 2014/33/EU, the others are covered in the revised version of the Guide to the application of the Lifts Directive. The Commission will monitor further issues raised by stakeholders in relation to the interpretation of the Directive and develop together with the stakeholders (most notably within the framework of the Lifts Working Group) further specific guidance documents if necessary.

While the provisions of the Directive have been uniformly transposed across the Member States, the evaluation has nevertheless identified discrepancies in the implementation of some of the provisions and most notably the EHSR 2.2. on the prevention of the risk of crushing and the prior approval as well as the provisions on lift accessibility for disabled persons. However, the evaluation has concluded that the implementation issues related to both of these provisions are essentially due to the diverging provisions and/or practices adopted by the Member States to complement the relevant provisions of the Directive. The Commission is committed to promote improved cooperation between the Member States in general and between the MSAs in particular so as to contribute to the emergence of more coherent practices across the Member States regarding the granting of prior approval pursuant to the third paragraph of EHSR 2.2. Regarding the provision on the lift accessibility for disabled persons, the evaluation has concluded that the additional requirements which are sometimes introduced by the Member States to complement the relevant EHSRs of the Directive do not impose additional burden on the economic operators and do not hinder the internal market for lifts.

The evaluation has concluded that the Directive’s contribution to the achievement of its objectives, namely the achievement of a well-functioning internal market for lifts and safety components and the improvement of safety of lifts, has been overall **effective**.

The development and use of harmonised standards has been key to ensure the effectiveness of the Directive, especially providing SMEs which have rather limited resources in comparison to the larger economic operators with an easier and cost-effective way to achieve compliance with the EHSRs.

The conformity assessment procedures caused no major implementation problem and resulted to be one of the main strengths of the Directive. Unlike a number of other New Approach Directives, in the case of the Lifts Directive all of the conformity assessment modules used for the conformity assessment of lifts require the involvement of a NB. This particularity has contributed to the low levels of non-compliance in the lifts sector.

Regarding specifically the Directive’s contribution to objective of improving the lift safety, the major difficulty to assess the performance of the Directive is due to the lack of official data on lift-related accidents across the Member States. In addition, the available data sourced mainly from national reports and provided by sectorial associations does not allow to quantify the Directive’s contribution. Nevertheless, the available data regarding accidents involving

maintenance personnel provides some indications on the overall trends. This data has been considered as particularly relevant for the assessment due to the fact that accidents involving maintenance personnel are generally better reported and documented and they trigger a specific follow-up. In the light of the above, the data gathered within the framework of the evaluation concerning the period between 2008 and 2015 indicates an average annual decrease of accidents involving maintenance personnel. This clearly indicates the positive contribution of the Directive regarding this specific group. Regarding the users of lifts, the evaluation has concluded that the impact of the Directive is in no circumstances adverse and the Directive could even have brought a minor positive contribution to the improvement of the level of lift safety.

Regarding the implementation of the market surveillance provisions, the evaluation has concluded that the level of non-compliance in the sector is very low. Nevertheless, there are discrepancies between the Member States regarding both the resources allocated to market surveillance as well as the overall approach towards these activities (proactive or reactive). As market surveillance activities are entrusted to the Member States, the Commission will support further coordination between the MSAs especially within the framework of the ADCO Group.

Regarding the **efficiency** of the Directive, the evaluation has concluded that there is no evidence that compliance costs due to the Directive have increased in comparison to the period prior to its entry into force. Based on the available qualitative data, it can be concluded that the Directive has achieved a balance of the costs and benefits for all stakeholder categories. By replacing the different national regimes with a single harmonised EU-wide legal framework, the Directive reduced the associated administrative and compliance costs. However, these benefits seem not evenly spread, with larger companies benefiting more than SMEs from harmonisation due to their orientation to intra-EU export.

Finally, the reduction of lift-related accidents involving maintenance personnel over the recent years suggests that the Directive has contributed to the increase of lift safety. While a direct causal link with the Directive cannot be proven based on the available quantitative data, stakeholders acknowledge the Directive's contribution to the improvement of the level of safety of lifts.

Lastly, the **EU added value** was acknowledged by all stakeholders. Intra-EU trade would not be as easy with diverging national requirements in place. The Directive's added value to the enhancement of the free movement is confirmed by the increasing relevance of intra-EU28 trade since 1995. This relates to the positive role of EHSRs, which not only created better conditions for the placing of lift-related products on the market, but also allowed the internationalisation and innovation in the sector. Despite the limited data available regarding lift-related accidents, the Directive's added value to the improvement of the lift safety is confirmed by the reduction of the number of lift-related accidents concerning maintenance personnel. Finally, the evaluation has concluded that the overall cost of compliance with the Directive have been reduced.

Annex 1: Procedural information

1. LEAD DG, DeCIDE PLANNING/CWP REFERENCES

Lead DG: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW); Unit C3 Advanced Engineering and Manufacturing Systems.

Work planning reference: 2016/GROW/003

2. ORGANISATION AND TIMING

The Inter Service Steering Group consisted of SG, DG JUST and DG GROW. After the kick-off meeting on 09.09.2015, the ISSG met on 14.01.2016, 17.03.2016, 15.09.2016, 14.12.2016, 09.03.2017, 18.10.2017 and 16.03.2018.

3. EXCEPTIONS TO THE BETTER REGULATION GUIDELINES

Not applicable.

4. CONSULTATION OF THE RSB (IF APPLICABLE)

Not applicable.

5. EVIDENCE, SOURCES AND QUALITY

The evaluation study was outsourced to an independent consultant applying standardised methodology for external evaluations as defined in the Better Regulation framework.

Literature, open on-line sources and publicly available reports and studies have been used. Other important sources of information were an Public Consultation involving overall 66 stakeholders, four targeted surveys addressed to four categories of stakeholders (Member State authorities in charge of the implementation of the Directive, MSAs in charge of the enforcement of the Directive, Notified Bodies, lift installers and safety component manufacturers, including SMEs, and related industry associations) involving 116 stakeholders and interviews with 38 stakeholders. Additionally, a Workshop held in the context of the LWG.

Market data about the lifts and safety components for lifts sector is not readily available and there is no specific matching product categories in statistical databases of Eurostat or other sources. Additionally, lifts are products which are placed on the market only once their installation on-site has been completed implying that statistics may not fully catch these products.

General market information was collected from publicly available sources (e.g. annual reports of economic operators) and from the European and national industry associations' publications.

More detailed cost related information was collected via specific consultation of a limited number of economic operators which agreed on to provide elementary data.

The robustness of the consultations:

- During the preparatory phase, the external used existing studies and documents of the Lifts Working Group and the Notified Bodies Lifts to prepare the next steps in the evaluation study. The work resulted in preliminary questionnaires for the interviews, targeted and public consultation. It also provided an insight to the evolution of the legal framework and the adaptation to the technical progress and innovation of the Lifts Directive over the period covered by the evaluation.
- The Inter Service Steering Group monitored the development of the consultation both with regard the process and the analysis of the information collected by the contractor. The ISSG paid particular attention to the independence of the evaluation team considering that information sources were limited and replies were potentially driven by commercial interests of the economic operators.
- The external consultant team carefully sought for technical expertise from wide range of consultees and the ISSG in analysing the few more technical and/or safety related issues raised during the evaluation. This approach resulted in a balanced analysis of the replies and reduced the risk of errors and confusion in the interpretation of the results.
- The Public Consultation was announced on the Europa website but also widely published via indirect channels to reach also SMEs and consumer associations to unlock the potential of stakeholders who initially did not engage to the evaluation process.
- Contributions by industry appear to be coherent and representative for the sector. Through the Public Consultation and targeted surveys but in particular through the Workshop held in the context of the LWG information and feedback from national authorities could be collected from the majority of the Member States. The online Public Consultation resulted in 66 replies, providing also the view of users and confirmed conclusions that could be drawn from the information already obtained from economic operators, Notified Bodies and national authorities.
- Triangulation of data from the surveys, the interviews and the Public Consultation, allowed identifying divergences between the data collected through the different tools. The answers were largely covering and reinforcing conclusions drawn on the basis of the different stakeholder groups' feedback.
- Compliance costs appear to be limited, at least balanced with the benefits of having a European level harmonisation legal framework in place, however it was extremely difficult to obtain this kind of information as economic operators and Notified Bodies do not have a record of the break-down of costs for this purpose. Most of the investment, operation and maintenance costs are inherent to the manufacturing and installation processes anyhow and the specific costs to meet the requirements of the Directive appear to be very low.

Whereas the number of replies and the level of coherence are sufficiently high, the qualitative assessment can be considered as reliable. However, information related to market size and compliance costs need to be interpreted with care and should be seen as indications of an order of magnitude rather than as precise estimates.

Given the significant number of lifts in service (approximately 5 700 000 units) and placed on the market annually (approximately 125 000 units), used in most cases on daily basis by tens of millions users, the number of reported accidents is extremely low. There is however no systematic collection of information about causes of accidents, many minor incidents are not reported by users and available accident statistics does not distinguish between incidents associated with lifts which were placed on the market under the Directive and older lifts. None of the reported cases reveal any shortcomings in the Directive itself. Whereas this situation is confirming the excellent safety record of lifts covered by the Directive, caution is needed on the interpretation of this finding and national authorities are encouraged to collect data related to accidents and problems they may identify with lifts and safety components for lifts.

Annex 2: Evaluation questions⁹⁴

22 evaluation questions (EQ) have guided the assessment of the Directive. They refer to the analysis of the European lift market, and to five evaluation criteria: relevance, effectiveness, efficiency, coherence, and EU added value. The evaluation criteria were understood to mean:

- **Relevance:** whether the objectives of the Directive still correspond to current problems, needs and challenges. In particular, the study assessed to what extent the scope and mechanisms of the Directive allowed addressing the main issues arising from the lift sector and in regard to lift safety. It also assesses whether the Directive follows up and adapts to technological, scientific and social developments (EQ from 2 to 5).
- **Effectiveness:** whether and to what extent the Directive's objectives in terms of lift safety and functioning of the internal market for lift and safety components have been achieved so far at both national and EU level (EQ from 6 to 15).
- **Efficiency:** whether the Directive has proportionally delivered its results in terms of costs and benefits (EQ from 16 to 18).
- **Coherence:** whether the Directive is consistent with other EU pieces of legislation relevant for lifts and whether it is internally coherent (EQ 19 and 20).
- **EU Added value:** to what extent the results of the EU action are additional to those that would have resulted from action at Member State level (EQ 21 and 22).

The following lists enumerates the evaluation questions that have been addressed in the study:

The European lift market

EQ 1. How has the European lift market evolved since the adoption of the Directive? What is the current situation and trends in the lift market?

Relevance

EQ 2. To what extent did the initial objective of facilitating the functioning of internal market correspond to needs/issues of all stakeholders and still do?

EQ 3. To what extent did the initial objective of ensuring a high level of safety of lifts correspond to needs/issues of all stakeholders and still do?

EQ 4. How are innovation and new technologies taken into account?

EQ 5. Is there an issue of clarity of the Directive?

Effectiveness

The implementation of the Directive

EQ 6. What are the discrepancies between MS in the process of the implementation of the Lifts Directive?

EQ 7. Have there been problems with the implementation of the Directive?

The effectiveness of the Directive in achieving its objectives

⁹⁴ For further details c.f. Section 8.3. of Final report of the Evaluation of the Lifts Directive Study.

- EQ 8. *How effective was the development and use of the European harmonised standards for the Lifts Directive?*
- EQ 9. *To what extent has the conformity assessment procedure for lifts and safety components for lifts been effective and provided highest degree of health and safety for consumers and users?*
- EQ 10. *How effective are Market Surveillance Authorities in identifying non-compliant lifts and safety components for lifts?*
- EQ 11. *To what extent has the Lifts Directive contributed to an effectively operating internal market for the products in its scope?*
- EQ 12. *To what extent does the Directive ensure legal certainty, transparency and non-discrimination between companies?*
- EQ 13. *To what extent has the Lifts Directive achieved its aims with regard to the protection of health and safety of users and maintenance personnel?*

Enabling factors

- EQ 14. *What are the barriers to effective application and enforcement, in particular through surveillance of lifts on the market?*
- EQ 15. *What are the factors that influence positively and negatively the effective application of the Directive?*

Efficiency

- EQ 16. *What are the regulatory (including administrative) costs for the different stakeholders?*
- EQ 17. *What are the main benefits for stakeholders and civil society that derive from the Directive?*
- EQ 18. *To what extent are the regulatory costs proportionate to the benefits achieved? How affordable are the costs for the stakeholders, given the benefits they receive? What does this represent in terms of administrative and reporting burdens?*

Coherence

- EQ 19. *Are there overlaps/complementarities between the Lifts Directive and any pieces of EU legislation or Member State legislation in the relevant areas (in particular Cableways and Machinery Directives)? To what extent are they coherent? Are there additional requirements at EU and national level with regard to certain products? Are there contradictions?*
- EQ 20. *Are the requirements for installers and manufacturers clear? Are there overlapping rules?*

EU added value

- EQ 21. *What is the additional value resulting from the Lifts Directive, compared to what could be achieved at national level?*
- EQ 22. *What is the added value of the Lifts Directive for stakeholders?*

Annex 3: Research Methodology⁹⁵

The evaluation grids

The approach to answering the evaluation questions has been defined in specific evaluation grids, presenting:

- The judgment criteria used to specify the meaning of the evaluation question;
- The analytical approach used in order to answer the evaluation question, given the judgement criteria;
- The indicators used to evaluate the achieved results as well as to identify potential shortcomings;
- The sources of information, including primary sources (i.e. stakeholders), and secondary sources, i.e. existing documents, publications, reports.
- All evaluation grids are presented in Annex 8.3. to Final report of the Evaluation of the Lifts Directive Study.

The research approach

The approach to the analysis has been based on the understanding of the relation between the evaluation questions and the intervention logic of the Directive. Besides the reconstruction of the intervention logic, the tools and techniques adopted in the study and described in the following sections include:

- Desk research;
- Field research;
- Case studies.

Desk research

The desk research included a comprehensive review of the existing documents and legislative texts at international, EU and national levels. Some examples are relevant literature on lift safety and sector, the policy context and the main issues related to the Directive's implementation.

Policy context, transposition and implementation

Insights on the policy context have been gathered through previous studies and reports on the on-going work of the EC on harmonisation legislation, NB-L RfU, the requests for standardisation and the amendments to the Directive. These documents have been crucial to frame the legislative background, the Directive's main provisions and working mechanisms and to identify the roles and responsibilities of stakeholders' concerned by the Directive. Finally, for assessing the transposition and implementation of the Directive at Member State level, the national transposition laws of the 28 EU Member States have been analysed specifically focusing on:

- The definition of the "installer of a lift";

⁹⁵ This section is based on Section 4 of Final report of the Evaluation of the Lifts Directive Study.

- The provisions in the national building regulations in relation with the requirement of Article 2(2) of the Directive in order to ensure a two-way flow of information between the lift installer and the person responsible for work on the building or construction;
- The transposition of Article 8 of the Directive included any restrictions in the use of harmonised standards;
- The prior approval as set out in section 2.2 of Annex 1 of the Directive to prevent the risk of crushing;
- The provisions for granting lift accessibility to disabled persons.

The raw data of this analysis are presented in Annex 8.6. to the Final report of the Evaluation of the Lifts Directive Study. The national reports for market surveillance, drafted by MSAs pursuant to Article 18(6) of Regulation (EC) No 765/2008, represented another information source to understand the policy context of the Directive.

Market data analysis

Products falling in scope of the Directive include lifts intended for the transport of persons, persons and goods, goods alone if the carrier is accessible, and their safety components (as listed in Annex IV). After-sales services (e.g. maintenance) are not in scope of the Directive.

The market analysis looked at the following indicators:

- Units and value of lifts and safety components sold (production);
- Overall value and volume of intra/extra EU imports/exports of lifts and safety components;
- Competitiveness;
- Turnover;
- Number of patents;
- Number and size of enterprises (i.e. safety component manufactures, lift installers);
- Number of employees.

A number of sources have been analysed to look for the above-mentioned indicators. The table below summarises the results of this analysis, showing which indicators have been identified, in which sources and referred to which products. Unfortunately, in many cases the available data do not fully match with the products in scope of the Directive. Where possible, indicators related only to the products in scope of the Directive have been estimated by integrating official and non-official sources.

Table 1 – Methodology for each indicator

Indicator	Source	Coverage	Issues	Action	Estimate
Units and value of lifts and components sold (production)	ELA reports (2013, 2015, 2017)	<u>Products:</u> Lifts and safety components <u>Territory:</u> EU28 with the exception of BG, CY, EE, HR, IE, LV, MT, SK + CH, NO, TR <u>Timeframe:</u> 2010-2015	Fully matching with the scope of the Directive, though likely to under-represent SMEs.	Where available, these data were used to provide a breakdown at MS level and to calculate the ratio of the number of accidents/number of installed lifts for MS. The under-representation of SMEs is not deemed to hinder the estimate of production sold, as they play a minor role in lift production. In some cases, these data were used to triangulate data provided by official sources.	None
	Eurostat Prodcom ⁹⁶	<u>Products:</u> Lifts: NACE Rev. 2 code 28221630 and 28221650 Safety components: NACE Rev. 2 code 28221950 <u>Territory:</u> EU28 and EEA <u>Timeframe:</u> 1995-2015	(A) Data at MS level are very fragmented. (B) NACE codes for lifts include <i>skip hoists</i> . ⁹⁷ (C) NACE codes for lifts include lifts that might fall under the Machinery Directive (e.g. due to different speeds). ⁹⁸ (D) The NACE code for safety components refers also to <i>escalators</i> that are not in scope of the Directive. (E) The number of new	(A) Data have been used only at aggregate level (EU). (B) The inclusion rather than the exclusion of skip hoists in scope of the Directive is not straightforward. Nonetheless, skip hoist production value -whether in scope or not of the Directive- over total EU production of lifts and skip hoists is estimated to not exceed 10%, ⁹⁹ meaning that those outside the scope of the Directive are even fewer. This estimate is confirmed by data provided by the German statistical office. ¹⁰⁰ As a result, the indicator has been used as it is. (C) The percentage of lifts that may fall under the Machinery Directive (MD) has been estimated as residual, considering that most products in its scope are “captured” by NACE Rev. 2 code 2822. As a result, the indicator has been used as it is. (D) We estimate that only 92% of the NACE code for safety components fall within the scope of the Directive, being the remaining 8% related to escalator. (E) The number of new lifts installed has been estimated based on Prodcom data, by adding to lifts produced in the EU the net import/export balance. The units of imported/exported lifts (not provided by Prodcom) has been estimated by dividing the import/export values by the (estimated) unitary lift cost (total production value/total production quantity). The	<i>Value of lifts sold = no calculation necessary</i> Value of lift components sold = value of lift components including escalator components*0.92 Units of new lifts installed = units of lifts sold + units of lifts imported – units of lifts exported
Intra- and extra-EU28 trade (import and export) in volume and value	Eurostat International Trade ¹⁰² And UN Comtrade	<u>Products:</u> Lifts: SITC Rev. 3 code 74481 Safety components: SITC Rev. 3 code 74493 <u>Territory:</u> EU28 and EEA			<i>Import/export of lifts = no calculation necessary</i> Import/export of lift components = import/export of lift

⁹⁶ Eurostat PRODCOM provides the value and volumes of sold production. http://ec.europa.eu/eurostat/cache/metadata/EN/prom_esms.htm

⁹⁷ A skip hoist is a bucket or car operating up and down a defined path, receiving, elevating, and discharging bulk materials.

⁹⁸ The Directive does not apply to lifting appliances whose speed is not greater than 0,15 m/s. (Art. 1(3)).

⁹⁹ Feedback from four industry representatives: an EU representative of SMEs, an Italian industry association, an expert of the sector and a representative from CEN TC10. Overall, 24 stakeholders were contacted but only these replied.

¹⁰⁰ Based on the authors’ estimates, the production value of skip hoists in Germany was equal to 11%, 10% and 10% in 2013, 2014 and 2015 respectively over total EU production of lifts, skip hoists and components. Similar data have been requested also to statistical offices of other major producing countries (i.e. ES, FR, IT), but this level of disaggregation was not available. Similarly, more disaggregated data were requested to Eurostat (to account for the value of skip hoists only), but this level of detail for NACE codes was not available.

Indicator	Source	Coverage	Issues	Action	Estimate
	Database	<u>Timeframe:</u> 2002-2015	lifts installed needs to be estimated.	underlining assumption is that lifts are imported/exported at the price they are produced. Although these figures are not fully comparable with those provided by ELA, ¹⁰¹ for some years there is a good correspondence between Prodcum and ELA data, the latter being equal to 82% of the former in 2010, to 74% in 2012, to 84% in 2013.	components including escalator components*0.92
Competitive-ness	None	None	Needs to be estimated	Estimated based on UN Comtrade Database.	Export shares
Turnover	Eurostat Structural Business Statistics (SBS) ¹⁰³	<u>Products:</u> Lifting and handling equipment: NACE Rev. 2 code 2822 <u>Territory:</u> EU28 + NO and TR <u>Timeframe:</u> 2008-2014	<i>Lifting</i> includes also <i>lifting machineries</i> that do not fall in scope of the Directive. <i>Handling equipment</i> are not in scope of the Directive.	To isolate the turnover related to the products in scope of the Directive, data from both ELA and the annual reports of the four largest market players have been considered. 1) Data from ELA provided the value of new lifts sold and of modernisation in Europe, per year, between 2010 and 2015. Knowing that maintenance accounted for around 50% of total turnover in the sector in 2011 and 2013, ¹⁰⁴ this percentage was used to calculate the overall turnover in the lift sector. The resulting value was then compared to the turnover of the lifting and handling equipment sector based on SBS data, to get the share over the total turnover including lifting and handling equipment. This share was equal to 15% on average between 2010 and 2014. ¹⁰⁵ 2) Data from the annual reports provided the turnover of the four largest market players in the sector. Based on the market analysis performed by Credit Swiss, ¹⁰⁶ their turnover accounts for 55% of total EU turnover. We assumed that their market share is still 55% in the other regions their reports refer to, i.e. EMEA and Europe 38 countries. This percentage has been used to calculate the total turnover in the lift	Turnover of products in scope of the Directive = Turnover in the lifting and handling equipment sector, related to both production and services * 0.22 * 0.40

¹⁰² Prodcum does not provide details on trade partner countries as does Eurostat International Trade database.

¹⁰¹ The reason could be that the definition of “new lift” changes from one database to the other. Moreover, geographical coverage is different.

¹⁰³ “Turnover” includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced vis-à-vis its customer and other similar deductible taxes directly linked to turnover. It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted. Income classified as other operating income, financial income and extra-ordinary income in company accounts is excluded from turnover. Operating subsidies received from public authorities or the institutions of the EU are also excluded. Source for definitions: <http://appsso.eurostat.ec.europa.eu/nui/setupMetadata.do> (document named Help for Indicators).

Production value provided by SBS cannot be compared to the value of sold production provided by Prodcum, as production value is calculated differently from one database to the other. Production value in SBS is defined as turnover, plus or minus the changes in stocks of finished products, work in progress and goods and services purchased for resale, minus the purchases of goods and services for resale, plus capitalised production, plus other operating income (excluding subsidies). Income and expenditure classified as financial or extra-ordinary in company accounts is excluded from production value. Included in purchases of goods and services for resale are the purchases of services purchased in order to be rendered to third parties in the same condition. Production value in Prodcum is valued at the selling price net of turnover tax and discounts granted to customers. Packaging costs are included even if charged separately. Freight costs are not included. As a consequence, turnover from SBS is not related to production value from Prodcum.

¹⁰⁴ According to Credit Suisse (2012 and 2014), *Elevators and Escalators*.

¹⁰⁵ The definition of turnover provided by Eurostat (see footnote 103) includes values that are excluded from ELA data. Moreover, since ELA mainly represents large enterprises, this share could be an underestimation of the value of turnover in the lift sector.

¹⁰⁶ According to Credit Suisse (2015) and EFESME (2014).

Indicator	Source	Coverage	Issues	Action	Estimate
				<p>sector between 2010 and 2014. The resulting value was then compared to turnover of the lifting and handling equipment sector based on SBS data. This share was equal to 30% on average between 2010 and 2014.¹⁰⁷</p> <p>Then, the average resulting from estimates 1) and 2) above was calculated for each year, and applied to data related to the total lifting and handling equipment sector provided by SBS (22% on average). Resulting estimates have been cross-checked with some external sources. Based on our estimates, the total turnover in the lift sector was equal to €12 billion in 2012. Based on EFESME (2012), the same variable was equal to €10 billion in the same year. Similarly, according to Elevatori (2015)¹⁰⁸ the turnover in the Italian lift sector 2014 was equal to €2.1 billion, while according to our estimates it was €1.8 billion in the same year.</p> <p><i>Result: the turnover in the lift sector (including turnover from both production and services, <u>indicator 1</u>) is equal to around 22% of the turnover of the lifting and handling equipment sector.</i></p>	
			<p><i>Turnover</i> includes also revenues from after-sales services (i.e. modernisation and maintenance) that do not fall in scope of the Directive.</p>	<p>We calculated the value of turnover related to the sale of products in scope of the Directive applying the parameter of 40%¹⁰⁹ to the above-calculated <u>indicator 1</u>.</p>	
	Annual reports of Kone, Otis, Schindler, Thyssen Krupp	<p><u>Products</u>: Lifts, escalators, auto-walks, automatic doors and integrated access control systems</p> <p><u>Territory</u>: Europe, Middle-East and Africa, and “Europe 38 countries”¹¹⁰</p> <p><u>Timeframe</u>: 2008-2015</p>	<p>Both the product and geographical coverages are outside the scope of the Directive. Moreover, these data do not cover SMEs.</p>	<p>These data were used to triangulate data provided by official sources.</p>	None
Number of patents	European Patent Office (EPO)	<p><u>Products</u>: Lifting and handling equipment: NACE Rev. 2 code 2822</p> <p><u>Territory</u>: World</p>	<p>The number of patents refer to the NACE code related to <i>lifting and handling equipment</i>, including products that</p>	<p>Turnover and R&D expenses in the lifting and handling equipment sector are correlated. Based on Amadeus’ data, this correlation is equal to 0.77 ($R^2=0.6$) in both 2013 and 2014. We assumed that the correlation between expenses in R&D (and related patents) and turnover is the same in the lift sector as in the lifting and handling equipment sector. As explained above, we estimated turnover related only to sales of new lifts and</p>	<p>Number of patents related to products in scope of the Directive = Number of patents in the lifting and handling</p>

¹⁰⁷ Given that the geographical coverage of reference is wider than the EU28 and that figures for turnover do not related only to lifts, this share could be an overestimation of the value of turnover in the lift sector.

¹⁰⁸ Elevatori (2015), *The great beauty: the Italian lift industry*, Interlift 2015.

¹⁰⁹ CreditSuisse (2012, 2014, 2015), EFESME (2014), interview with an EU SME representative, with an Italian industry association, with a large installer.

¹¹⁰ Including, a part from the 28 EU MS, Albania, Bosnia and Herzegovina, Iceland, Liechtenstein, Norway, Russia, Serbia, Switzerland, Turkey.

Indicator	Source	Coverage	Issues	Action	Estimate
		<u>Timeframe:</u> 1990-2014	are not in scope of the Directive.	components in the EU, which is equal to around 9% (i.e. 22%*40%) of total turnover in the lifting and handling equipment sector. As a result, the number of patents related to products in scope of the Directive has been calculated by applying the parameter of 9% to the number of patents in the lifting and handling equipment sector provided by EPO.	equipment sector * 0.22 * 0.40
Number of enterprises	Eurostat Structural Business Statistics (SBS)	<u>Products:</u> Lifting and handling equipment: NACE Rev. 2 code 2822 <u>Territory:</u> EU28 + NO and TR <u>Timeframe:</u> 2008-2014	<i>Lifting</i> includes also <i>lifting machineries</i> that do not fall in scope of the Directive; <i>Handling equipment</i> are not in scope of the Directive; <i>Number of enterprises</i> include also those enterprises active only in the after-sales services that do not fall into the scope of the Directive.	The number of active enterprises falling within the scope of Directive has been estimated at being at the maximum between 21% and 25% of the corresponding SBS data (i.e., 22% average). ¹¹¹ This proxy is based on data for Germany ¹¹² and Italy ¹¹³ that also include enterprises active only in the after-sales services (i.e., outside the scope of Directive). Being impossible to disaggregate further, this data will be considered as purely indicative.	<i>Number of enterprises in the lift sector (i.e. including both manufacture/ installation and after-sales services) = Number of enterprises in the lifting and handling equipment sector * 0.22</i>
Size of enterprises falling within the scope of the Directive	Amadeus Database (Bureau van Dijk)	<u>Products:</u> Lifting and handling equipment: NACE Rev. 2 code 2822 <u>Territory:</u> EU28 + NO and TR <u>Timeframe:</u> 2005-2014	Amadeus database provides micro-level data for the sector of lifting and handling equipment.	We calculated the shares of micro, small, medium and large enterprises in the sector of lifting and handling equipment for the available years and applied them to official data on the number of enterprises provided by SBS. As a result, we obtained the distribution of firms per size in the sector of lifting and handling equipment, assuming it is similar to that of the lift sector.	Count of firms according to size to obtain their relative share over total firms in the sector of lifting and handling equipment.
Number of employees	ELA reports (2013, 2015, 2017)	Lifts and safety components	Although related only to the lift sector, these data include also employees and enterprises active only in the after-sales market (i.e. not	Data provided by ELA specifically relate to the lift sector. These data include employees involved in both production/installation and the provision of after-sale services (the latter not being covered by the Directive). However, considering that: 1) ELA data are likely to exclude micro and small firms –and related employees- active only in the after-sales market; 2) For most firms, employees involved in installation are likely to be also involved in the	None

¹¹¹ It was not possible to apply the same share as for turnover since the underlining assumption would have been that the turnover per firm in the lift sector is distributed equally as in the lifting and handling equipment sector, which is likely not to be the case.

¹¹² According to estimates based on data provided by the German statistical office, the number of firms in the lift sector in Germany in 2014 was equal to around 188, i.e. equal to around 21% of the firms active in the lifting and handling equipment sector in the country in the same year, according to SBS.

¹¹³ The number of firms in the Italian lift sector is equal to 400, i.e. equal to around 25% of the firms active in the lifting and handling equipment sector in the country in the same year according to SBS. Source: ANACAM (the Italian lift industry association) <http://www.anacam.it/anacam/chi-siamo>

Indicator	Source	Coverage	Issues	Action	Estimate
			covered by the Directive). Moreover, these data are likely to refer to large enterprises only, as they are represented by ELA.	<p>provision of service;</p> <p>ELA data are considered sufficiently reliable. Moreover, they are coherent with data retrieved from the annual reports of the major producers, considering that they employ 40% of total workforce in the sector.¹¹⁴</p> <p>As a result, the indicator has been used as it is and was preferred to the indicator from SBS.</p> <p>When presenting data from ELA disaggregated per firm size, we assumed that the distribution of employees across different firms in the lift sector is the same as that of the lifting and handling equipment sector.</p>	
	Annual reports of Kone, Otis, Schindler, Thyssen Krupp (from 2008 to 2015)	<p><u>Products:</u> Lifts, escalators, auto-walks, automatic doors and integrated access control systems</p> <p><u>Territory:</u> Europe, Middle-East and Africa, and "Europe 38 countries".</p> <p><u>Timeframe:</u> 2008-2015</p>	Both the product and geographical coverages are outside the scope of the Directive.	These data were used to triangulate data provided by official sources.	None

¹¹⁴ Based on authors' estimates on Amadeus data applied to SBS.

Lift-related accidents

As for **accidents related to lifts**, in light of the lack of data from official sources, the evaluation mainly relied on data provided by ELA, in combination with information from national studies, national reports on market surveillance specifically conducted in the lift sector¹¹⁵ and reported in the targeted surveys. Similarly to data for the market analysis, accident data are limited (see below section 0), hindering a thorough evaluation of the Directive's effectiveness in improving lift safety.

Cost-benefit analysis

Table 20 in Annex 8.8. to the Final report of the Evaluation of the Lifts Directive Study maps the obligations deriving from the Directive for each stakeholder impacted. The identification and assessment of the costs and benefits introduced by the Directive could not rely on a previous impact assessment, and has therefore been based on a comparison with the previously existing directive regulating lifts (i.e. Directive 84/528/EEC). The matching allowed for the identification of new requirements and simplifications that caused new costs or the ceasing of others (see Table 21 in Annex 8.8. to the Final report of the Evaluation of the Lifts Directive Study).

Data on cost/benefits has been collected through surveys and interviews to the different categories of stakeholders.

Field research

The field research consisted of a combined mix of tools:

- A Public Consultation launched by the Commission in early June 2016 and concluded in January 2017, involving overall 66 stakeholders. The results of the Public Consultation have been considered as evidence to be triangulated with information gathered through the other research tools;
- Four targeted surveys addressed to four categories of stakeholders (Member State authorities in charge of the implementation of the Directive, MSAs in charge of the enforcement of the Directive, NBs, lift installers and safety component manufacturers, including SMEs, and related industry associations). Overall, it involved 116 stakeholders. The targeted surveys included both closed and open questions complementing the questions of the Public Consultation;
- Interviews to 38 stakeholders. Interviewees were selected on the basis of their specific knowledge of or experience with the Directive, particularly for the case studies. They

¹¹⁵ European Commission; Report on the Member States reviews and assessment of the functioning of market surveillance activities for the 2010-2013 period pursuant to Article 18(6) of Regulation (EC) No 765/2008. http://ec.europa.eu/growth/single-market/goods/building-blocks/market-surveillance/organisation_en

were also selected to ensure a balanced geographical coverage and a balanced representation of all stakeholder categories;¹¹⁶

- A Workshop held in the context of the LWG. The workshop served to discuss the preliminary results of the study with representatives of the Commission, of Member States and observers from the industry, standardisation bodies and NBs. The workshop has been a valuable tool to collect further evidence and validate the results with relevant stakeholders.

Altogether, through the different tools used, more than 220 stakeholders were consulted, with a wide geographical coverage. Bulgaria and Croatia are the only countries for which no stakeholder was willing to participate.

Please refer to Annex 0 of the Final report of the Evaluation of the Lifts Directive Study for a detailed overview of stakeholder consultation.

Case studies

Five thematic case studies have been drafted, with the objectives of:

- Ensuring a higher level of detail, not feasible with reference to all the Member States and all the aspects of the implementation of the Directive (e.g. its effectiveness in terms of safety, the costs for economic operators, the use and benefits of harmonised standards). Therefore, case studies have been used to produce useful insights and specific evidence, that helped to better understand the overall situation in the EU and the results achieved with the Directive in specific areas of action;
- Illustrating in practical terms the implication and impacts of specific situations;
- Understanding the causal links between the intervention and the achievements/results/impacts;
- Identifying successful practices and approaches.

In line with the issues highlighted in the evaluation questions and emerging from the targeted surveys, the case studies focused on the following topics:

- Access to lifts for disabled persons: national policies and regulations on the matter (case study 1);
- “Prior approval”: implementation issues and possible solutions (case study 2);
- Technological trends in the lift industry since 1999: are EHSRs and European harmonised standards appropriate, flexible and effective to support the implementation of the Lifts Directive? (case study 3);
- Market surveillance of lifts: a comparison between Italy, the Netherlands, Poland and Spain (case study 4);
- Analysis of costs and benefits induced by the Directive on SMEs (case study 5).

Case studies have been based on both desk and field research – with a total of 20 stakeholders being interviewed. Please refer to Annex 8.7. to the Final report of the Evaluation of the Lifts Directive Study for the case studies.

Limitations and mitigation measures

Overview

The following table presents the mitigation measure undertaken for each limitation described below. The following sections provide details.

Table 2 –Limitations and mitigation measures

Lack of assessment of the effectiveness of the Directive against the baseline	Whenever possible, the report highlights information reported by stakeholders referring to the situation previous to the entry into force of the Directive
Lack of data on market surveillance in the lift sector	A number of questions were foreseen in the targeted surveys to fill in these gaps. The answers to these questions proved to be not entirely informative, therefore the assessment of the effectiveness of market surveillance was based on available data collected through desk research.
Lack/incompleteness of market data	A specific methodology, to gather estimates to disaggregate data, has been developed, also through additional stakeholder consultation
Lack of official data on lift accidents at EU level	Additional reports/literature have been investigated to fill-in the gaps at least for the main MS. Most of the analysis is based on data requested to ELA
Low response rate to targeted survey questions collecting data for the CBA	Specific interviews were scheduled to fill-in these gaps. Moreover, the CBA in section 6.3 presents the estimates resulting from this exercise trying to avoid generalisations due to small sample on which calculations are based.
Unbalanced representation of some stakeholders/MS	General interviews aimed at involving the least represented categories/ MS

Desk research limitations

Policy context, transposition and implementation data limitations

To properly assess the Directive, the definition of a baseline scenario would have been ideal. However, the reconstruction of the baseline scenario was not possible in the context of this study. This was due firstly to the lack of an impact assessment for the Directive at the time of its adoption – which should provide a “picture” of the baseline.¹¹⁷ Secondly, the collection of information dating back to more than 20 years ago (as the Directive was adopted in 1995) would have proved cost-ineffective.

¹¹⁷ Inasmuch as an Impact Assessment “*verifies the existence of a problem, identifies its underlying causes*”. EC (2015), Better Regulation Guidelines, p.16.

To partly address this limitation, whenever possible, the report highlights information reported by stakeholders referring to the situation previous to the entry into force of the Directive.

Moreover, the evaluation of the effectiveness of market surveillance in the lift sector was hampered by a serious lack of data in the national reports on market surveillance activities. More specifically, a number of indicators¹¹⁸ could not be obtained. As a consequence, a number of questions of the targeted survey were foreseen to fill in these gaps. The answers to these questions however proved to be not entirely informative, therefore a thorough assessment of the effectiveness of market surveillance could not be achieved.

Market data analysis limitations

The limitations encountered in gathering market data related to:

- Incomplete data for the years before 2000;
- The NACE codes used for the analysis include products that are outside the scope of the Directive (i.e. some lifts and skip hoists that are subject to the Machinery Directive), thus limiting a precise estimate of the lift market;
- Available data do not allow distinction between safety components manufacturers and lift installers, thus again hindering an accurate assessment of the lift market;
- For the same reason, available data do not provide the number of new lift installers and safety components manufacturers entering the market since 1999. Furthermore, data at national level are highly fragmented;
- Finally, as part of the Union harmonisation legislation, the Directive does not cover after-sales services (i.e. maintenance and modernisation of lifts). However, these constitute an integral and relevant part of the lift sector, particularly in Europe. Due to data aggregation, it was not possible to distinguish the number of firms active in the production and installation from those performing modernisation and maintenance only, and therefore not impacted by the Directive but by the national legislation.

As a result of the limitations encountered, a specific methodology to the market analysis has been developed, as described in section 4.2.1. The limitations described partly hindered the assessment of the impacts of the Directive on the internal market, though some trends can still be identified.

Lift-related accident data limitation

The constraints in accident data are related to several factors, such as:

¹¹⁸ i.e. the number of safety components for lifts recalled from the market, per MS, per EU/non-EU product; the number of inspections carried out by MSA as reported in the national reports; % of non-compliant lifts or safety components for lifts recalled from the market per MS, per EU/non-EU product; comparison to key trading partners; time necessary to take a safety component off the market, if it is taken in whole EU at the same time; % of non-compliant lifts and safety components for lifts in all production placed on the market and put into service, per MS; % of controls that resulted in identification of non-conformity of lift or safety component; % of controls that resulted in prohibiting lifts and safety components for lifts to put on the market or put into service, per MS, per product; % of inspections by MSAs, where the conclusions are different from the results provided by the conformity assessment procedures (particular of final inspection or unit verification).

- The absence of an official centralised reporting system on accidents and of common classifications on the seriousness of the injury;
- The lack of details on the causes of accidents (e.g. whether accidents are due to drawbacks in the Directive’s EHSRs, lack of maintenance or to lift misuse), and tendency not to report minor accidents;¹¹⁹
- The lack of a sufficiently wide timeframe (i.e. from 1995 to 2015) for both registered accidents and the number of lifts into service per Member State;
- Statistics never distinguishing between accidents involving lifts subject to the Directive and “existing lifts” (i.e. lifts installed before the entry into force of the Directive);
- Incomplete official accident data in national reports on market surveillance for lifts.

As a consequence, additional reports and literature have been consulted to gather data on lift accidents at least for the leading countries (e.g. DE, ES, FR, IT), but for the abovementioned reasons, they are hardly comparable. Moreover, specific requests for data were sent to ELA. It is to be noted that ELA mainly represents the big market players and that the methodology to collect these data was not provided. However, when national industry associations were contacted to triangulate such data, they always referred to data collected by ELA.

The lack of accident statistics has in part hindered the evaluation of the effectiveness of the Directive in terms of increased lift safety, although some trends may still be observable.

Cost-benefit analysis limitations

The analysis incurred some limitations that did not allow for a comprehensive assessment of all the costs and benefits entailed by Directive 95/16/EC. To collect the largest possible amount of quantitative data from MSAs, NBs and economic operators, questions on the costs and benefits entailed by the Directive were included in the surveys and in the Public Consultation. However, only a small number of respondents could provide the requested data or were willing to, possibly for confidentiality reasons (i.e. none of the respondents could or would provide an overall number of performed EC type-examinations). In addition, respondents could not provide exact figures but rather average estimates of most of the costs that they incurred when the Directive came into force.

Regarding the development of a baseline to compare costs and benefits before and after the implementation of the Directive, as previously discussed, data are not available.

The major benefit of the Directive for consumers and maintenance personnel is a higher safety level of lifts. However, data on the period before the implementation of the Directive are not available, thus a more in-depth analysis of the effects on lift safety could not be performed.

These limitations made it difficult to calculate the overall costs and benefits entailed by the Directive. Whenever possible, costs and benefits are reported in quantitative terms and with respect to the whole EU market. In other cases, costs are only available in unitary terms for a single company, but could not be extended to the whole market. Finally, some other costs/benefits were not quantifiable and were described only in qualitative terms.

¹¹⁹ ELA (2012). The Importance of Accident Statistics.

Field research limitations

The field research has been extensive and largely outdid the expected targets (as reported in Annex 0 on stakeholder consultation). Moreover, stakeholders were, for the large majority, very keen on providing their input to the evaluation.

Nonetheless, some issues are worth mentioning. As for the targeted surveys, it resulted that information requested was very detailed and respondents expressed the need for an extension of the deadline in order to provide more complete information. This implied a rescheduling of activities (e.g. interviews) that were specifically aimed at investigating issues emerged from the targeted surveys. Furthermore, as already mentioned, quantitative questions aimed at collecting data for the CBA received very low rates of response. In addition, some categories of stakeholders (i.e. large enterprises)¹²⁰ were particularly represented, to the detriment of other categories (i.e. SMEs). The same consideration regards the geographical representation, with a particularly high involvement of German stakeholders.¹²¹

When referring to the evidence provided by the targeted surveys or Public Consultation in Chapter 6, percentages are calculated on the actual number of answers received per each question, thus excluding:

- Answers that did not provide any information, i.e. the “*I do not know*” selections;
- “*Not applicable*” answers, i.e. those questions that were not asked to some respondents as it was outside their area of competence;
- “*No answer received*”, i.e. when the respondent decided to skip the question.

In practice, reported percentages often have a different calculation basis, and the base might be less than 116 (the total number of respondents to the targeted surveys) and less than 66 (the total number of respondents to the Public Consultation).

As for the interviews, a general lack of Public Authorities’ willingness to participate was detected.

¹²⁰ 85% (28 out of 33) of total enterprises responding to the targeted survey are large enterprises.

¹²¹ 19% (22 out of 116) of total respondents are German.

Annex 4: Synopsis report Stakeholder consultation

1. Introduction

The overall process of stakeholder consultation for the evaluation of the Directive began in early June 2016 and continued up to January 2017. The consultation collected inputs from a wide range of stakeholders through different tools, namely:

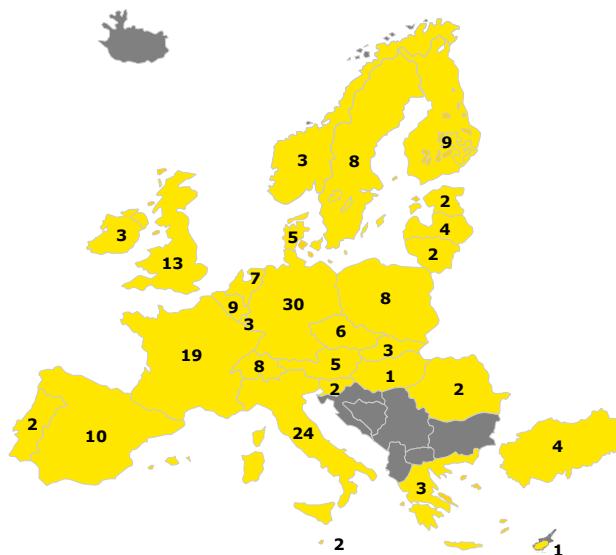
- A Public Consultation launched and managed by the EC;
- Four targeted consultations based on online surveys addressed to MS implementing authorities, MSAs, NBs, economic operators;
- Targeted interviews;
- A workshop presenting the first findings to the LWG.

The Public Consultation and the four targeted consultations were conducted ahead of the interviews, as the latter were aimed at complementing and triangulating the information collected and clarifying issues emerged. The workshop held in the context of the LWG served to collect further evidence and validate the results with the Member States and the relevant stakeholders.

2. Scope of the consultation activities and stakeholder groups covered

Regarding the geographical coverage of the stakeholder consultation, all EU Member States, together with Norway, Switzerland and Turkey, were involved in the consultation, except for Croatia and Bulgaria (figure below).

Figure 1 - EU coverage and number of stakeholders involved per Member States¹²²



Source: Evaluation of the Lifts Directive Study, Final report

¹²² In addition to those presented in the map, 17 EU level organisations were involved in the study.

1.1. Public Consultation

The Public Consultation was launched on 22 September and closed on 16 December 2016.¹²³ It consisted of an online questionnaire available in six official languages: English, French, German, Italian, Spanish and Polish. It ran on the Commission's infrastructure (EU Survey) and was addressed to all EU citizens. The survey was designed to gather feedback on:

- The evaluation criteria, in particular the relevance, effectiveness and added value of the Directive;
- Newly developed technologies and their impact on the lift industry and safety;
- The current state of the art of the accessibility to lifts granted to people with disabilities (either permanent or temporary);
- The clarity and exhaustiveness of the definitions and rules provided in the Directive.

61 questionnaires were received from stakeholders who reported having some knowledge of the Directive and of the lift sector, namely:

- 8 Public Authorities (AT, CZ, 3 DE, FI, PL, UK);
- 6 NBs (ES, CZ, FR, 2 IT, TR);
- 1 Standardisation Organisation (IT);
- 24 manufacturers/installers (AT, BE, CH, CZ, DE, ES, DK, FI, FR, IT, NO, PL, RO, SE, TR, UK);
- 10 industry associations¹²⁴ (CH, 2 DE, FR, 2 EU level, IT, PT, SE, UK);
- 12 maintenance personnel, users and other target groups¹²⁵ (EU level, FR, PL, SE, UK).

Additionally, five questionnaires were received from stakeholders stating to have a basic knowledge of the sector (a German Public Authority, a Finnish trade association and three anonymous).

To avoid overlapping, the Public Consultation had a very general character as compared with the specific information required in the targeted surveys.

1.2. Targeted surveys

Four targeted surveys based on online questionnaires, were launched on 6 June 2016, closed on 15 September 2016 and ran on the EY online survey tool (eSurvey). The questionnaires have been differentiated and aimed at:

- The analysis of the implementation of the Directive at national level;
- The collection of data on accidents, the overview of the market surveillance activities - in order to fill-in the gaps of the reports currently available¹²⁶;

¹²³ Available at http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8930

¹²⁴ Of whom two representing SMEs.

¹²⁵ Three organisations representing lifts owners, two EU organisations representing persons with disabilities, three organisations representing users, one EU organisation representing maintenance personnel, three users/citizens.

- The assessment of the costs and benefits of the Directive, for companies, MS authorities (including MSAs) and NBs;
- The in-depth analysis of conformity assessment procedures.

Overall, the targeted surveys was addressed to 595 stakeholders, 116 of which replied:

- 11 Member State implementing authorities¹²⁷ (out of 35; missing replies from AT, BE, BG, CZ, DK, EL, ES, FI, FR, HR, HU, IT, LV, NO, PT, RO, SE, SK, TR, UK);
- 11 MSAs¹²⁸ (out of 92; missing replies from AT, BG, CH, CY, CZ, EL, ES, FR, HR, HU, IE, IT, LU, LV, MT, PL, PT, RO, SI, TR);
- 53 NBs (out of 268) in 15 different countries¹²⁹;
- 33 among installers and manufacturers, 28 large, three SMEs and two micro (out of 153) in 17 different countries¹³⁰;
- Six national industry associations¹³¹ and one European association (out of 47 representatives).

1.3. Interviews

The project also foresaw stakeholder involvement through 38 interviews (with two Public Authorities not willing to be involved).

More in detail, the interviews aimed at:

- Investigating in details specific topics and issues emerged from the analysis of the survey as well as from the desk-based research, by discussing them with the involved national and EU stakeholders;
- Gaining a better understanding of the consequences of current practices, the most important and emerging issues, by involving stakeholders acting in the lift market (e.g. representatives of user associations, representatives of industry associations, lift installers, manufacturers of safety components, NBs, standardisers);
- Understanding the different perspectives and viewpoints, by discussing with different stakeholders;
- Triangulating information and interpreting data collected throughout the desk and field research carried out so far.
- The stakeholders involved were selected according to a combination of the following criteria:
- Geographical representativeness, to ensure a balanced representation of all EU Member States;

¹²⁶ Report on the MS reviews and assessment of the functioning of market surveillance activities for the 2010-2013 period pursuant to Article 18(6) of Regulation (EC) No 765/2008, Sector 10 Lifts.

¹²⁷ From CH, CY, DE, EE, IE, LT, LU, MT, NL, PL, SI. The complete coverage of the EU28 MS could not be achieved due to stakeholders' unwillingness to reply, despite the several reminders sent to highlight the importance of the study.

¹²⁸ From BE, DE, DK, EE, FI, LT, NL, NO, SE, SK, UK. The complete coverage of the EU28 MS could not be achieved due to stakeholders' unwillingness to reply, despite the several reminders sent to highlight the importance of the study.

¹²⁹ AT, BE, CZ, FI, FR, DE, IE, IT, LV, LU, NL, PL, SK, TR, UK.

¹³⁰ AT, BE, CH, CZ, DK, ES, FI, FR, DE, HU, NL, NO, PL, RO, SE, TR, UK.

¹³¹ From BE, DE, DK, IT, MT, UK.

- Balanced representation of all stakeholders, so as to include those categories that were (i) not addressed by the targeted consultations, and especially the ESOs, user, worker and other civil society associations; (ii) under-represented in the previous two types of consultations, i.e. the Public and the targeted consultation (e.g. SMEs).

The stakeholders involved are listed below:

- 3 MS implementing authorities (EL, NL, PT);
- 4 MSAs (FR, IT, LV, PL);
- 7 NBs;
- 2 ESOs;
- 9 installers/manufacturers (a large, five medium and four small-sized enterprises);
- 6 industry associations;
- 7 user and worker associations and other target groups¹³².

3. Stakeholder Consultation: Results

According to the large majority of respondents to the targeted survey, the definitions provided in the Directive are clear, complete and up to date. Moreover, 73% of respondents think that the definitions are now clearer in Directive 2014/33/EU.¹³³ Among these, all economic operators (both large companies and SMEs) agree on the above statement.

Conversely, the results of the Public Consultation suggest that some definitions such as "installer of a lift", "placing on the market of the lift" and "model lift" might need to be reviewed. Similar issues were raised in the context of the LWG and the interviews and thus confirmed that some stakeholders would welcome a revision of the said definitions. It should be noted however, that these stakeholders belong to different target groups.

A large share of respondents¹³⁴ to the survey deem that tasks, obligations and rights of all the stakeholders concerned by the Directive (i.e. safety component manufacturers, lift installers, Member State implementing authorities, MSAs, and NB) were already clear in Directive 95/16/EC. When this was not the case, they have been either partially or completely clarified in Directive 2014/33/EU.¹³⁵

The respondents to the Public Consultation state at a near unanimity¹³⁶, that the EHSRs took sufficiently into account innovations and technologies at the time of the Directive's approval. Furthermore, responses to the targeted survey and the Public Consultation also confirm that the stakeholders consider the EHSRs to be flexible enough to adjust to the development of new technologies that offer the same or better levels of safety than the one provided by ENs.¹³⁷

¹³² Three organisations representing disabled people (LU, EU level), three organisations representing maintenance personnel (ES, FI, FR) and a consumer association (EU level).

¹³³ (74 out of 101), c.f. Evaluation of the Lifts Directive Study, Final report, page 108.

¹³⁴ On average, 46% (39 out of 84 on average) of respondents to this question, cf. Evaluation of the Lifts Directive, Final report, page 109.

¹³⁵ On average, 46% (39 out of 84 on average) of respondents to this question, cf. Final report, page 109.

¹³⁶ (98%, 56 out of 57), cf. Final report, page 110.

¹³⁷ cf. Evaluation of the Lifts Directive Study, Final report, page 110.

With regard to accessibility of lifts by people with disabilities, both the majority of respondents to the targeted survey¹³⁸ and to the Public Consultation¹³⁹ underline the need to enshrine additional provisions for minimum compulsory awareness of manufacturers and installers in the legal framework for ensuring accessibility to lifts of disabled persons. More specifically, nearly half of the Public Consultation respondents consider the general information about accessibility of lifts and access conditions as bad/very bad and 42% consider that the availability of lifts in public buildings with more than one floor could be improved.¹⁴⁰

The large majority¹⁴¹ (84 out of 107 or 78%) of survey respondents deem European ENs in line with developments occurred in the lift and safety component industry. The results of the stakeholder consultations indicate that the support for the ENs in the lift sector is stronger in the Member States which have joined the EU after 2004 as compared to the all-EU average.¹⁴²

It should be noted nevertheless that 39 out of 54 (72%)¹⁴³ of the Public Consultation respondents deem the length of EN development process as excessive. Similarly, 33 out of 54 (61%) of respondents believe that hENs should be revised more often.

For the large majority of survey respondents¹⁴⁴ (72 out of 105 or 69%), the rules for affixing the CE marking were clear already in Directive 95/16/EC, and if this was not the case, they have been either partially or completely clarified in the new Directive. Moreover, 62% (65 out of 105) of the survey respondents declare to have never encountered a situation where these rules needed to be clarified and only 1% (1 out of 105) declare to have had the need for clarification in some cases.

As far as the conformity assessments procedures are concerned, the large majority of survey respondents deem them to have proved adequate for both the design and the production/installation phase. Only 8% (8 out of 100) of the stakeholders assess procedures as inadequate.¹⁴⁵

With regard to the market surveillance, the responses to the stakeholder consultation indicated that overall the stakeholders are not completely satisfied with the market surveillance activities in their countries. Thus, 53% (49 out of 92) of respondents to the targeted survey report that market surveillance is only somehow effective and 25% (23 out of 92) evaluate it as ineffective.¹⁴⁶ An analysis by category of stakeholders shows that in general economic operators and NBs tend to be more critical towards the effectiveness of the market surveillance activities.¹⁴⁷ These conclusions are also supported by the results of the Public Consultation in the course of which 81% of the stakeholders have indicated that they deem the effectiveness of

¹³⁸ 54%, (49 out of 90), cf. Evaluation of the Lifts Directive Study, Final report, page 113.

¹³⁹ 73%, (24 out of 32), cf. Evaluation of the Lifts Directive Study, Final report, page 113.

¹⁴⁰ cf. Evaluation of the Lifts Directive Study, Final report, page 113.

¹⁴¹ cf. Evaluation of the Lifts Directive Study, Final report, page 114.

¹⁴² cf. Evaluation of the Lifts Directive Study, Final report, page 113.

¹⁴³ cf. Evaluation of the Lifts Directive Study, Final report, page 115.

¹⁴⁴ cf. Evaluation of the Lifts Directive Study, Final report, page 115.

¹⁴⁵ cf. Evaluation of the Lifts Directive Study, Final report, page 116.

¹⁴⁶ cf. Evaluation of the Lifts Directive Study, Final report, page 117.

¹⁴⁷ cf. Evaluation of the Lifts Directive Study, Final report, page 116.

market surveillance authorities in removing non-compliant products from the market as low or very low.¹⁴⁸

Regarding the relevance and effectiveness of the Lifts Directive, 69% (80 out of 116) of the survey respondents declared not to be aware of any discrepancies across EU Member States in the implementation of the Directive which would hinder the effectiveness of the Directive in achieving its objectives.¹⁴⁹

However, respondents to the Public Consultation have reported their concerns regarding some aspects related to the market surveillance. Thus, around 70% (33 out of 47) of respondents deem that the extent of market surveillance activities, the MSAs' approach to determining compliance as well as the penalties applicable in case of infringements are not uniform across the Member States.¹⁵⁰ Furthermore, 61% of the respondents to the Public Consultation (36 out of 59) consider the uneven enforcement of market surveillance across EU Member States the major obstacle hindering the free circulation of lifts and lift safety components.¹⁵¹

In this regard, it should be noted however, that the market surveillance as well as the choice of the specific penalty regime to be applied in case of infringements are within the realm of the competence of the Member States which could explain these discrepancies.

As far as the relevance of the Lifts Directive concerned, the respondents to the targeted survey almost unanimously (115 out of 116 or 99%) have declared that the Directive is relevant as it meets their current needs to a great or at least to some extent.¹⁵² Similarly, almost all survey respondents regard the Directive as effective in guaranteeing the free circulation of lifts and safety components within the EU (112 out of 116 or 97%) and in ensuring a high degree of lift safety (113 out of 116 or 98%).¹⁵³

With regard to the overall clarity of the Directive, 40 out of 60 (66%) of respondents to the Public Consultation report having faced only small issues related to the clarity of the definitions.¹⁵⁴ Similarly, the majority of stakeholders (35 out of 61 or 58%) did not encounter difficulties due to the clarity of economic operators' responsibilities all along the value chain.¹⁵⁵

Stakeholders consulted through both the targeted surveys and the Public Consultation have very similar opinions on the positive value brought by the Directive, inasmuch as they recognise that although the Directive contributed to reducing costs to a lower extent, it brought other major benefits such as the free movement of lifts/safety components and the reduction of disparities among Member States.¹⁵⁶

Overall, the stakeholders consulted in the framework of the targeted survey expressed their positive assessment regarding the impacts of the Lifts Directive. More specifically, over 90% of

¹⁴⁸ cf. Evaluation of the Lifts Directive Study, Final report, page 116.

¹⁴⁹ cf. Evaluation of the Lifts Directive Study, Final report, page 118.

¹⁵⁰ cf. Evaluation of the Lifts Directive Study, Final report, page 119.

¹⁵¹ cf. Evaluation of the Lifts Directive Study, Final report, page 120.

¹⁵² cf. Evaluation of the Lifts Directive Study, Final report, page 119.

¹⁵³ cf. Evaluation of the Lifts Directive Study, Final report, page 119.

¹⁵⁴ cf. Evaluation of the Lifts Directive Study, Final report, page 121.

¹⁵⁵ cf. Evaluation of the Lifts Directive Study, Final report, page 121.

¹⁵⁶ cf. Evaluation of the Lifts Directive Study, Final report, page 122.

the stakeholders deem that the Directive has facilitated the free circulation of lifts and safety components, has reduced the barriers to trade by harmonising the national requirements and practices and has thus established a level playing field for all economic operators.¹⁵⁷

These conclusions are supported to a significant extent by the results of the Public Consultation. Respondents to the Public Consultation were asked to give their opinions about positive and negative aspects potentially induced by the Directive. Among the most positive impacts, stakeholders signalled the alignment with the “state of the art” of lift technology through ENs and the facilitation of intra-EU trade for lifts and safety components and cost savings. Conversely, the respondents did not rank the increasing safety of lifts and the reduction of the number of non-compliant lifts placed on the market as the main contributions of the Directive.¹⁵⁸

On the other hand, among the negative aspects of the Directive, 33 of the 54 (61%) the consulted stakeholders highlighted the fact that the Directive did not play a relevant role in introducing mandatory requirements for accessibility to lifts by disabled persons and also the fact that the reduced Member States’ competences to regulate the sector eventually led to a less specific legislation for lifts.¹⁵⁹ Finally, for 43% of the respondents, the Lifts Directive has increased the administrative burden.¹⁶⁰

¹⁵⁷ cf. Evaluation of the Lifts Directive Study, Final report, page 123.

¹⁵⁸ cf. Evaluation of the Lifts Directive Study, Final report, page 124.

¹⁵⁹ Respectively 61% (33 out of 54) and 54% (27 out of 50), cf. Evaluation of the Lifts Directive Study, Final report, page 124.

¹⁶⁰ cf. Evaluation of the Lifts Directive Study, Final report, page 125.

Annex 5: Comparative Table between Directive 84/528/EEC and Directive 95/16/EC

Provisions in Directive 84/528/EEC	Provisions in Directive 95/16/EC	Baseline
Art. 5: Establishes that all products in the scope of the Directive shall undergo an EEC Type-Examination before being placed on the market.	Art. 2 and Art. 3: MSA must ensure that only lifts and components compliant with the safety requirements are placed into market.	No additional or reduced burden for MSAs.
Art. 6: EEC type-approval/component type approval are granted by the Member States which also provide a type-approval certificate.	Art. 8: the EC type-examination (and other technical inspections) are performed by NBs.	The administrative burden entailed by the conformity assessments are on NBs and no longer on MSs.
Art. 7: If a MS which has granted an EEC type approval/component approval fail to conform to the type, it shall suspend or withdraw the approval and inform other MSs and the Commission.	Art. 7: While in previous regulation only issuing authority could withdraw a certificate, the new regulation allows any MSA which identifies a non-compliant product to remove it from the market.	This provision, affecting MSAs, does not add or reduce the related enforcement and administrative costs.
Art. 9, par. 2 and Art. 10: EEC type-examination shall be carried out by bodies approved for this purpose by the Member States; Approved bodies appointed by Member States to carry out EEC type-examination in accordance with Art. 11 shall comply with minimum criteria laid down in Annex II.	Art. 8: the verification procedures, as set out in this article and further described in the mentioned annexes, are carried out by NBs Art. 9 par 2: MSs shall apply the criteria set in annex VII in assessing NBs.	This article of the Directive indicates the conformity assessments that can be used by lift installers and manufacturers. While the previous Directive did foresee only the EEC type-examination, the new Directive allows for multiple solutions. The additional or reduced costs for economic operators relating to the conformity assessments are considered for the purposes of this analysis.

Provisions in Directive 84/528/EEC	Provisions in Directive 95/16/EC	Baseline
Art. 10, par. 2: MS shall notify other MSs and the Commission of the body or list of bodies concerned.	Art. 9: MS shall notify the Commission and other MSs of the bodies which they have appointed to carry out the verification procedures.	No relevant changes for MSs in comparison to previous Directive.
Art. 13/14: MSs shall monitor the approved bodies and, in case of withdrawal of approval, communicate the changes to the Commission and ensure continuity and remove from the market all improper certificates.	Art. 9 par. 3: A Member State which has notified a body must withdraw its notification if it finds that the body no longer meets the criteria laid down in Annex VII and immediately inform the Commission and the other MSs.	No relevant changes for MSs in comparison to the previous Directive.
Art. 17: Manufacturer, or authorised representative, using the EEC mark must: (i) inform the body which granted the certification; (ii) allow representatives of such body to perform inspections. The approved body granting the certificate must provide copies to other approved bodies, MSs and Commission.	Art. 8: The article (and the related annexes) sets out the conformity assessment that lift installers and manufacturers of safety components should follow before placing a product on the market.	The Directive foresees different types of conformity assessments. The additional or reduced costs for economic operators relating to the conformity assessments are considered for the purposes of this analysis.
Art. 18: The approved body which has granted the EEC type-certificate must carry out the EEC inspection of the appliance/components for which the EEC type-certificate was granted.	Art. 8: The article (and the related annexes) sets out the duties of NBs regarding the inspections to conduct before granting a certificate.	The Directive foresees different types of conformity assessments. The additional or reduced costs for economic operators relating to the conformity assessments are considered for the purposes of this analysis.
Art. 20: The EEC mark of conformity affixed to an appliance and/or component shall certify that it conforms to the type approved or granted an EEC type-examination certificate.	Art. 10: the CE marking is regulated in this article. Manufacturers are required to affix the marking on the products.	Directive 84/528/EEC already required installers and manufacturers to affix the EEC marking. For this reason, the CE marking will not be accounted in the analysis of costs.

Provisions in Directive 84/528/EEC	Provisions in Directive 95/16/EC	Baseline
<p>Art. 21: MSs communicate to other MSs and the Commission: (i) list of bodies responsible for carrying out examinations; (ii) list of approved bodies; (iii) any subsequent amendment to the lists.</p>	<p>Art. 9: MS shall notify the Commission and other MSs of the bodies which they have appointed to carry out the verification procedures.</p>	<p>No relevant changes for MSs in comparison to previous Directive.</p>

Annex 6: Overview of costs-benefits identified in the Evaluation

Regulatory (including administrative) costs for the different stakeholder categories impacted by the Directive 95/16/EC

(given the low representativeness of data available the estimated costs should consider as purely indicatives)

	Type of cost	Description	Estimated cost
MSAs / administration	Monitoring costs	Costs due to inspection activities as foreseen by Art. 2(1) and (2); Art. 7(3); Art. 9(2) and (3); Art. 10(4)(b).	Two SMAs (DK and FI) report cost approximately between €1,100 and €1,800 per inspection.
MSAs/ administration	Administrative costs	Costs due to information obligations of MSs towards the EC and other MSs as foreseen by Art. 7(1); Art. 9(1) and (3); Art. 11.	Not assessed as already due in previous Directive 84/528/EEC.
NBs/	Human resources	Initial and recurring training expenses: (i) to familiarise with the Directive (and related ENs); (ii) due to year-on-year training related to the Directive.	16 NBs report costs ranging between €500 and €12,000. Accounting, on average, for 0.34% of annual turnover (higher for SMEs)(data from)
NBs	Investment costs	Cost of purchasing ENs. Recurring costs depend on (i) the range of services provided; (ii) size of NBs (larger NBs pay flat-rates to providers of technical standards).	Normally updated twice a year. 13 NBs report cost for Harmonised Standards between €50 and €250. Accounting on average from 0.01% for larger companies to 0.035% for SMEs
NBs	Investment costs	Cost for national accreditation procedures	Average annual cost per year: 1% of annual turnover for 2 micro NBs; 0.05% for 1 small NB; 0.01% for 7 medium/large NBs
Business	Monitoring costs	Cost of conformity assessments: variable costs depending on the type of conformity assessment	2 large companies reports an EC type-examination costs for €440-€580. Three enterprises reports unit verification costs €900-€1,000. The share of cost over the turnover is negligible for large installers and manufacturers, while it is 0.74% for 2 SMEs.
Business	Investment costs	Cost of purchasing ENs. Recurring costs depend on (i) the range of products; (ii) size of EO (larger EOs pay flat-rates to providers of technical standards).	Normally updated twice a year. 13 companies report cost for Harmonised Standards between €50 and €250, accounting from 0.01% of annual turnover for large companies and 0.035% for SMEs.

	Type of cost	Description	Estimated cost
			<p>However, large companies may also opt for module H and pay flat-rates to providers of technical standards. This reduce dramatically the cost per unit verified.</p> <p>Harmonized standards are updated more frequent than nationals. This causes additional unnecessary costs for SMEs because they are usually not export-oriented.</p>
Business	Human resources	Initial and recurring training expenses: (i) to familiarise with the Directive (and related ENs); (ii) due to year-on-year training related to the Directive.	Accounting, on average, between 0.08% for SMEs and to 0.12% for large enterprises, only part of which relates to the Directive.
Business	Administrative costs	Costs for preparing an EC DoC mark and for affixing it on each lift	Not assessed as already due in previous Directive 84/528/EEC.