

***FRAMEWORK SERVICES CONTRACT
ENTR/2008/006/LOT 1***

**Impact Assessment Study Concerning
the Revision of Directive 2000/9/EC
Relating to Cableway Installations
Designed to Carry Persons**

Final Report

prepared for
DG Enterprise and Industry

RPA

October 2012

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***Impact Assessment Study Concerning the Revision of
Directive 2000/9/EC Relating to Cableway
Installations Designed to Carry Persons***

Final Report – 19th October 2012

prepared for

DG Enterprise & Industry

by

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EXECUTIVE SUMMARY

The purpose of the Cableways Directive (2000/9/EC) is to establish free movement in the internal market of safety components and subsystems of cableway installations while maintaining a uniform and high level of safety. The Directive became fully operational in 2004. According to a 2011 report¹ by the European Commission, the adoption and implementation of the Directive had been successful in establishing an internal market for safety components and subsystems, while guaranteeing a uniform and high level of safety. However, the Commission also identified a number of issues that may need to be addressed.

The purpose of this report is to support the European Commission in preparing an impact assessment for various options to revise the Cableways Directive. To this end, the study is divided into two parts. The aim of Part 1 is to provide background data on the cableway sector, assess its competitiveness and evaluate any impacts that the Directive has had. The objective of Part 2 is to provide an impact assessment of policy options that aim to address the main problems identified with the Directive.

Part 1: Assessment of the Cableways Sector and of the Impacts of the Directive

There are currently around 17,500 cableway installations in Europe and these make up around 60% of the estimated 30,000 cableway installations worldwide. Within Europe, the main markets for cableways are France, Austria, Italy, Germany and Switzerland; together these markets account for over 50% of all cableway installations in Europe. Although there are uncertainties associated with the data, it appears that globally less than 300 new installations on average were built annually between 2001 and 2010. Of these, at least two thirds appear to have been installed in Europe.

The ski industry is still the primary market for cableways technology but cableway installations are now also increasingly appearing in other environments (e.g. in urban areas). It is estimated that there are currently between 1,500 and over 2,200 cableways operators in Europe.

There are two main industry groups involved in manufacturing cableways, the Doppelmayr-Garaventa Group (based in Austria and Switzerland) and a group comprising Leitner (Italy) and Poma (France). These two groups dominate the European and global cableways industries, accounting for 90% of the global industry. In addition, there are over 30 other cableway manufacturers in Europe, most of which are likely to be SMEs. The evolution of the cableways sector over the past 30 - 40 years can be characterised by a large number of mergers, acquisitions and market exits; around 50 European cableway manufacturers may have been subject to mergers and acquisitions while over 20 European cableway manufacturers have exited the

¹ European Commission (2011): **First report on the implementation of Directive 2000/9/EC relating to cableway installations designed to carry persons**, COM(2011) 123 final dated 16.3.2011.

market. In addition, Europe also has at least 80 manufacturers that supply subsystems and safety components to cableway manufacturers.

The main impacts of the Cableways Directive can be summarised as follows:

- the key impact of the Cableways Directive has been in the area of product standardisation, facilitating trade between EU Member States and increased economies of scale but possibly also reducing product variety and exerting upward pressure on product prices;
- European harmonised standards appear to be accepted in many non-European export markets leading to an improvement in the positioning and visibility of EU manufacturers globally;
- the adoption of the Directive has contributed to increasing the level of safety of cableway installations in Member States which did not have a strong tradition in this area or where regulation may have been comparatively less stringent; and
- the reduction in the number of cableway manufacturers and the emergence of two main players that have become increasingly integrated into their upstream supply chains has at least partially coincided with the entry into force of the Directive. Some stakeholders appear to believe that the Directive contributed to these developments. However, the onset of these developments predates the Directive.

Part 2: Assessment of the Different Policy Options

In Part 2, three policy options have been considered for each problem area: Option 1 (no change), Option 2 (changing the Application Guide to the Directive), and Option 3 (changing the Directive).

Problem Area A: Definition of Cableway Installations

The aim of the policy options under consideration is to include novel installations with a mixed leisure-transport function into the Directive's scope (Option A2 by means of soft law and Option A3 by means of changing the Directive). It appears that installations that would be affected by Option A2 or A3 are presently not sold in the EU, possibly with the exception of one case (see main report for details). It can be concluded that Option A2 (which is a flexible instrument that can be relatively easily and more flexibly adapted in the future) is preferable to Option A3.

Problem Area B: Confusion over Inclined Lifts and Small Funiculars

Option B2 involves amending the Application Guides to the Cableways and Lifts Directives to emphasize that manufacturers should contact the authorities at an early stage in the planning and design process to discuss whether a particular installation is an inclined lift or a small funicular. Option B3 involves amending the Cableways Directive to explicitly mention that inclined lifts are excluded from its scope. Option B3 is unlikely to affect current practices but would involve transposition costs. Option B2 is seen as preferable as it would involve low/moderate costs and it can be expected to have a positive impact on the level of awareness (particularly in the lifts sector) as regards the need to reach a formal agreement on an installation's classification at an early stage in the planning and design process.

Problem Area C: Definition of Safety Components, Subsystems and Infrastructure

Option C2 and Option C3 aim to address problems that have arisen with regards the terms subsystem, safety component and infrastructure. It is clear that some stakeholders have faced problems when interpreting these terms. However, the impacts of these options would differ significantly between Member States, with no clear picture emerging at the EU level. Given the potential risks associated with Option C3, it is proposed to further consider implementing Option C2.

Problem Area D: Conformity Assessment of Subsystems

The objective of Options D2 and D3 is to allow the use of specific modules for the conformity assessment of subsystems. However, it has been suggested that notified bodies which account for 90% of the notification market already use these modules and as such the impacts of Options D2 and D3 would be relatively minor. The main benefits would likely arise from addressing legal uncertainty. Due to the non-binding nature of the Application Guide, Option D2 is seen as ineffective in terms of addressing legal uncertainty and Option D3 is seen as preferable.

Problem Area E: Alignment with the NLF (Obligations of Economic Operators)

The cableways sector is said to be transparent with no evidence of attempts to place non-compliant products on the market and no or limited imports from outside Europe, perhaps with the exception of cableway ropes. Therefore both Option E2 and Option E3 appear to be associated with limited benefits at the present time, although it cannot be ruled out that increased competition from countries outside Europe might mean that these Options may deliver benefits in the future. Due to its legally binding nature, Option E3 appears to be preferable to Option E2.

Problem Area F: Alignment with the NLF (Criteria for Notified Bodies)

Options F2 and F3 may contribute to ensuring that notified bodies have the necessary expertise and experience to carry out high quality assessments. In this regard, it is of note that some stakeholders believe that there are differences between the levels of expertise between notified bodies but there is no specific evidence of this having led to the approval of dangerous products. Option F3 is seen as preferable to Option F2 as under the latter option, the new requirements would not be enforceable.

Problem Area G (Alignment with the NLF: Safeguard Procedure)

As the safeguard procedure is rarely used in the cableways sector, it has not been possible to provide a detailed assessment of the impacts of Options G2 and G3. However, most stakeholders support alignment of the safeguard procedure with the NLF and there is some (limited) information suggesting that benefits might be accrued due to avoidance of unnecessary alerts. As Option G2 is not legally binding and thus cannot provide clear and unambiguous rules, Option G3 is seen as preferable.

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1. INTRODUCTION

1.1 Background to Study

The purpose of *Directive 2000/9/EC of the European Parliament and of the Council of 20 March 2000 relating to cableway installations designed to carry persons* (hereafter referred to as ‘the Cableways Directive’ or ‘the Directive’) is to establish the free movement in the internal market of safety components and subsystems of cableway installations while maintaining a uniform and high level of safety.

The Cableways Directive entered into force on 3 May 2000 and became fully applicable on 3 May 2004 in member countries of the European Economic Area (EEA), i.e. in all Member States of the European Union as well as in Iceland, Liechtenstein and Norway.

According to a report² by the Commission, prepared in 2011, the adoption and implementation of the Directive had been successful in establishing an internal market for safety components and subsystems, while guaranteeing a uniform and high level of safety. However, the Commission also identified a number of issues that may need to be addressed. Several specific ‘problem areas’ have been identified and these are also discussed in the Roadmap for Directive 2000/9/EC³ issued by DG Enterprise and Industry. These include:

1. **Scope of the Directive:** there are some difficulties concerning the scope of the Directive, in particular with regard to new types of installations;
2. **Conformity Procedures:** the Cableways Directive does not provide a specific conformity assessment module for subsystems (although it is provided for safety components). This situation has led to some divergences in interpretation and implementation of the conformity evaluation of subsystems; and
3. **New Legal Framework (NLF):** although the Directive is a ‘New Approach Directive’, there is a need to align more closely with the NLF, with particular regard to Decision No 768/2008/EC relating to the marketing of products and dealing, for example, with the obligations for economic operators and notified bodies.

² European Commission (2011): **First report on the implementation of Directive 2000/9/EC relating to cableway installations designed to carry persons**, report from the Commission to the European Parliament and the Council, COM(2011) 123 final dated 16.3.2011.

³ DG Enterprise (2010): **Roadmap for Directive 2000/9/EC relating to cableway installations designed to carry persons**, Revised Version dated May 2011.

1.2 Study Objectives

Risk & Policy Analysts (RPA) has been contracted by DG Enterprise and Industry to support the European Commission in preparing an impact assessment for various options to revise the Cableways Directive. In order to prepare a robust impact assessment, it is necessary to provide background data to inform estimates of the potential scale of impacts (costs and benefits) associated with the proposed changes. Against this background, the study has been divided into two parts, as outlined below.

Part 1: Assessment of the Cableway Sector, its Competitiveness and the Impact of the Directive

The objectives of Part 1 of the study have been to:

- collect and present data on the cableway sector – covering Europe and world data from 2000;
- assess the competitiveness of the cableway sector; and
- assess (qualitatively and quantitatively) the impact of the Directive on the cableway sector.

Part 2: Assessment of the Different Policy Options

Sections 5 and 6 of this report provide an impact assessment of policy options to address each of the ‘problem areas’ described in Section 4. In each of the ‘problem areas’, three policy options have been considered:

- do nothing;
- clarify the issue in the Application Guide to the Directive (‘soft law’); and
- amend the Directive.

1.3 Structure of this Report

The remainder of this report has been organised as follows:

- Section 2 provides the market situation in the cableways sector;
- Section 3 provides a summary of the main impacts of the Directive;
- Section 4 summarises consultees’ views on the revision of the Directive and an overview of policy options that are subsequently assessed in the impact assessment;
- Section 5 provides the core of the impact assessment; and
- Section 6 summarises the main impacts for each problem area and compares the relevant policy options.

2. MARKET SITUATION IN THE CABLEWAYS SECTOR

2.1 Definition of Cableways

In Article 1.2 of the Cableways Directive, cableway installations designed to carry persons are defined as:

“installations made up of several components that are designed, manufactured, assembled and put into service with the object of carrying persons. These on-site installations are used for the carriage of persons in vehicles or by towing devices, for which the suspension and/or traction is provided by cables positioned along the line of travel”.

Article 1.3 of the Directive further specifies that *“the installations concerned are:*

- a) funicular railways and other installations with vehicles mounted on wheels or other suspension devices for which traction is provided by one or more cables;*
- b) cable cars where the cabins are lifted and/or displaced by one or more carrier cables; this category also includes gondolas and chairlifts;*
- c) drag lifts, where users with appropriate equipment are dragged by means of a cable.”*

According to the Application Guide to the Cableways Directive (EC, 2006), the *“cable and passenger transport objective”* are the principal determinants of the scope of the Directive. Unless noted otherwise, references to cableways in the rest of the report should be understood within the context of the Cableways Directive.

Table 2.1 describes some of the main types of cableway installations, while Table 2.2 summarises some of their typical operational characteristics.

Table 2.1: Descriptions of Types of Cableway Installations
<p>Funicular: A wire rope controls the motion of the carriers even though a funicular may travel at ground level or on structurally supported steel tracks. The carriers tend to be large, enclosed and, often, seating is provided.</p>
<p>Gondola: Gondolas are small carriers set at regularly-spaced close intervals. The systems are continuously circulating with carriers passing around terminal bull-wheels. Carriers detach from the hauling rope in terminals, are decelerated and carried through the unloading and reloading areas at very slow speed, then accelerated for reattaching to the haulage rope for high speed travel "on the line" between terminals. Gondolas are usually totally enclosed or (less often) partially enclosed as in amusement parks. These systems can be used both in ski areas and in other environments.</p>
<p>Detachable Chair Lift: Detachable chair lifts are virtually the same as gondolas, but the carrier is a multi-passenger open chair with restraining bar and footrest. Detachable chairlifts facilitate loading at a comfortably slow carrier speed and traveling at a high line speed.</p>
<p>Fixed-grip Chair Lift: Multi-passenger carriers circulate between and around terminals at a constant speed. The drawback is that the carrier speed comfortable for loading and unloading can be slow 'on</p>

Table 2.1: Descriptions of Types of Cableway Installations
<p>the line' between terminals.</p> <p>Aerial Tramway: An aerial tramway uses large carriers or cabins and travels high above ground. The carrier(s) -- one or single reversible, two or double reversible travel between terminals, stop, reverse direction and travel back on the same, usually stationary and counter weighted, track rope. Carriers are said to reciprocate between terminals. These systems are commonly referred to as "reversibles".</p> <p>Funitel is a special type passenger cableway which is based on cabins supported by two ropes.</p> <p>Combined installations: combined installations unite elements of several cableway types, such as those of gondolas and chairlifts.</p> <p>Drag Lifts (also called Surface Lift): Surface lifts are largely used in ski areas to move skiers (although summer use is also possible) by means of an overhead haulage rope with attached towing devices. Further designation is by carrier type; e.g., disc, J-bar, T-bar, etc. Drag Lifts can be both fixed grip and detachable.</p>
<p><i>Source: Mostly reproduced (but adapted) from http://library.mines.edu/About_Ropeways</i></p>

Table 2.2: Operational Characteristics of Various Cableway Installations			
Type of Cableway Installation	Capacity per carrier	Maximum carrying capacity (persons/hour)	Top line speed
Surface lifts	1 to 2	1,500	3.5 m/s
Gondolas	4 to 15	3,600	6 m/s
Chairlifts	2 to 8	4,000	5 m/s
Funitel	24	3,200 – 4,000	7.5 m/s
Funicular	400	8,000	12 m/s
<i>Source: DARE (2009)</i>			

2.2 Market Size

2.2.1 The World Cableway Market

According to information from the International Organisation for Transportation by Rope (OITAF) (referenced in DARE, 2009), there are around 30,000 cableway installations worldwide.

Table 2.3 below sets out the number of cableways installed in various world regions between 2001 and 2010 based on information available from www.lift-world.info. Although there are uncertainties associated with the accuracy and reliability of the data provided, it does highlight that the Alps account for the highest proportion of new lifts by volume. As can be seen from Figure 2.1, Eastern Europe and central Asia have become growing markets for cableway installations in recent years.

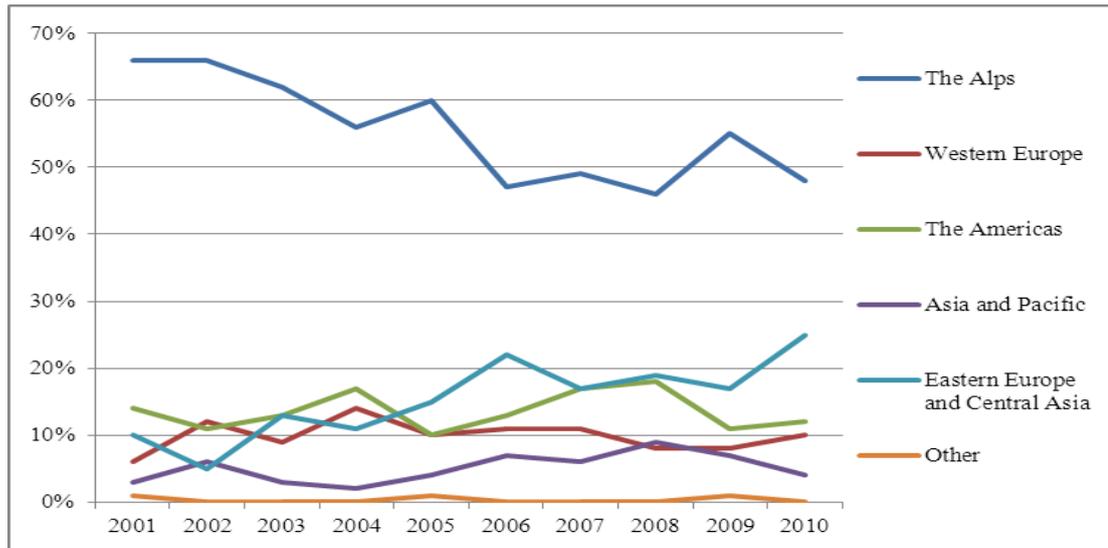


Figure 2.1: Proportion (in %) of New Cableway Installations Accounted for by Region

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
The Alps	172	161	194	186	218	167	136	117	127	108
Western Europe (excl. the Alps)	16	29	27	46	35	38	31	20	19	22
The Americas	37	27	40	55	37	47	46	46	26	28
Asia and Pacific	8	14	10	7	16	24	16	22	15	10
Eastern Europe and Central Asia	26	12	42	35	55	80	47	47	40	57
Other	2	1	0	1	5	0	0	1	3	1
Total	261	244	313	330	366	356	276	253	230	226

Source: Lift-World (nd)

2.2.2 European Cableway Market

Overview

Table 2.3 shows that Europe is the largest market for cableways in the world, with around 80% of new cableway installations being constructed in Europe and Central Asia (which is assumed to account for a very small part of the market).

Data by OITAF (published in DARE, 2009) indicate that there are around 17,500 cableway installations in Europe; these make up around 60% of the estimated 30,000 cableway installations worldwide. The main European markets for cableways are France, Austria, Italy, Germany and Switzerland; together these markets account for over 50% of all cableway installations in Europe and are considered further below.

France

Table 2.4 sets out the total number of cableways in France from 2003 to 2010, with this showing a steady decline from around 3,961 cableways in 2003 to 3,685 cableways in 2010.

Year	Number of Cableways
2003	3,961
2004	3,962
2005	3,895
2006	3,891
2007	3,890
2008	3,790
2009	3,731
2010	3,685

Source: STRMTG (2011)

In 2010, there were 41 new cableways were installed in France, seven of which were on new sites, while the remaining 34 were replacement installations of existing cableways. Table 2.5 sets out the number of cableways installed by each manufacturer, while Table 2.6 sets out the types of cableways which were actually installed.

Manufacturer	Number	Percentage
Poma	18	43%
Doppelmayr-Garaventa	5	12%
Leitner	2	5%
Other	10	24%
Awaiting Confirmation	6	15%

Source: STRMTG (2011)

Type of Cableway	Number of New Installations
Drag lifts	15
Chair lifts	Detachable (13) Fixed (10)
Gondolas	2
Funitel	1

Source: STRMTG (2011)

Austria

According to the BMVIT (nd), Austria has around 3,063 cableways, of which 1,079 are cable cars while the remaining 1,984 are drag lifts. In 2010, 27 new cable car installations (i.e. excluding new drag lifts the number of which is not known) were constructed in Austria and this is said to be around the annual average of recent years (BMVIT, 2011). Table 2.7 sets out the types of cableways which were actually installed.

Table 2.7: Cableways Installed in Austria in 2010 by Type (excl. Drag Lifts)	
Type of Cableway	Number of New Installations
Chair lifts	Six-seat (7)
	Eight-seat (3)
Gondolas	Monocable (1)
	Bicable (14)
Aerial tramway	1
Combined cableway	1
<i>Source: BMVIT (2011)</i>	

Italy

According to statistics presented by OITAF (2009) there were 2,294 cableways in Italy in 2006. More recent data from the Italian Ministero dei Trasporti shows that in 2011 there were 2,190 cableways in Italy, of which there were:

- 151 gondola lifts;
- 863 chair lifts;
- 95 bi-cable reversible ropeways;
- 6 bi-cable installations (single or double track rope);
- 29 funiculars and
- 1,046 drag lifts.

Data from the publication ‘Quota Neve’ (2012) suggest that 28 new cableways were installed in Italy in 2011. Of the 28 new cableways installations in 2011:

- 32% (9) were gondola lifts;
- 18% (5) were detachable chairlifts;
- 21% (6) were fixed-grip chairlifts; and
- 29% (8) were drag lifts.

Table 2.8 presents the manufacturers of cableways installed in Italy in 2011 and the number of cableways supplied by each.

Manufacturer	Number	Percentage
Leitner	19	68%
Doppelmayr-Garaventa	6	21%
CCM Finotello	2	7%
MEB Impianti	1	4%

Source: ANEF (2009)

Germany

According to information taken from Verband Deutscher Seilbahnen (2010), there are around 1,800 cableways in Germany. Table 2.9 sets out the types of cableways which are in operation in Germany.

Type of Cableway	Number of Installations
Drag lifts	1,637
Cable cars	165
Funiculars	21
Indoor lifts	5

Source: Verband Deutscher Seilbahnen (2010)

Switzerland

In 2010, Switzerland had approximately 1,774 cableways. Table 2.10 sets out the types of cableways which are in operation in Switzerland (Remontées Mécaniques Suisses, nd).

Type of Cableway	Number of Installations
Drag lifts	897
Chair lifts	350
Gondolas	120
Funiculars	58
Aerial Tramway	126
Small cable transport installations	223

Source: Remontées Mécaniques Suisses (nd)

Since 1990, the number of cableways in Switzerland has declined as old cableways are replaced with installations with greater capacity and higher performance thus limiting the number of installations required. For instance, in 2009, in addition to the four installations on new sites, seven replacement or renovations of existing installations were completed (Remontées Mécaniques Suisses, nd).

It is of note that Switzerland adopted requirements based on the Cableways Directive in 2007. In addition, an agreement between the EU and Switzerland on mutual recognition of conformity assessments that relate to cableways was adopted in 2011 and the relevant decision was published in the Official Journal of the European Union in March 2012 (Committee on Mutual Recognition in relation to Conformity Assessment, 2012). This agreement enhances Switzerland's participation in the framework established by the Cableways Directive (EU-Switzerland Agreement, 2011; SNV, 2011).

2.2.3 Analysis of Customers

The ski industry has historically been the primary market for cableways technology and currently accounts for 80% of the business of the principal cableways manufacturers – with the remaining 20% of cableways found in other (e.g. urban) environments.

The world ski market spans 80 countries, 2,000 resorts and between 4,000 and 6,000 places of ski practice. Worldwide, the Alps continue to be the most popular ski destination attracting 46% of skiers, followed by America with 23%, Asia and Pacific 15%, Western Europe 11% and Eastern Europe and Central Asia 5% (Vanat, 2011).

Table 2.11 below, presents the total number of cableway installations for skiing purposes in each country in 2011 (Vanat, 2011). As expected, the traditional European ski countries (France, Austria, Switzerland and Italy) as well as the United States and Canada currently account for the majority of cableway installations for skiing purposes globally. These markets are discussed in more detail below.

Overall, traditional cableway markets have seen a long-term decrease in the number of cableways installed. It is important to note that one reason for the decrease in numbers of cableways is that old installations are being replaced by those that are more efficient and have a higher capacity which means fewer installations are needed.

Table 2.11: Number of Cableway Installations for Skiing Purposes by Country (2011)		
Country	Number of Lifts	% of Lifts
France	3660 ¹	15.1% (3731 ¹)
Austria	3,003 (2987 ¹)	12.2%
United States	2,970 (943 ¹)	12.0%
Italy	1,948 (2193 ¹)	7.9%
Germany	1,827 (1792 ¹)	7.4%
Switzerland	1,774 (2333 ¹)	7.2%
Japan	1,422 (2475 ¹)	5.8%
Canada	922	3.7%
Poland	832 (824 ¹)	3.4%
Sweden	820 (974 ¹)	3.3%
Czech Republic	816	3.3%
China	800 (916 ¹)	3.2%
Norway	788 ² (795 ¹)	2.7% (667 ²)
Slovakia	489	2.0%
Russia	414	1.7%
Finland	374	1.5%
Spain	360 (333 ¹)	1.5%
Slovenia	217 (281 ¹)	0.9%
Australia	147	0.6%
Argentina	145 (143 ¹)	0.6%
Romania	141 (126 ¹)	0.6%
Korea, South	130	0.5%
Chile	122	0.5%
Andorra	111 (100 ¹)	0.4%
Ukraine	98	0.4%
Bulgaria	94	0.4%
New Zealand	93	0.4%
Hungary	70	0.3%
Turkey	68	0.3%
Bosnia and Herzegovina	35	0.1%
India	22	0.1%
Georgia	12	0.0%
Armenia	6	0.0%
South Africa	4	0.0%
Total	24,684	100%

Source: Vanat (2011) unless stated otherwise; please note that these data may include surface lifts which are either very small or not in use and which are not reported to OITAF. ¹ denotes source is ITTAB and data are for all installations (possibly not just those for skiing) in 2010/2011.

1: Figure provided by the French authorities in October 2012 indicate 3660 cableway installations for skiing purposes. The % of total lifts relates to the figure provided by Vanat (2011).

2: Vanat (2011) indicates 667 lifts while data from the Norwegian authorities state that the number of lifts in operation for skiing purposes in Norway was 788 at the end of 2011, of which 203 were low level tow lifts.

Western Europe

Western Europe represents the most popular destination for downhill skiing in the world accounting for 210 million skier days compared to 80 million in North America (currently Europe's closest competitor). France individually accounts for 60 million skier days per year while the Nordic region (Sweden, Norway and Finland) accounts for an estimated 17.5 million skier days (Skistar, nd). There have been recent decreases in the total number of skier days in 2010/2011 in France (-5%), Austria (-3.4%) and Switzerland (-5%) while the figures for Germany remained level with those of 2009/10.

While the vast majority of ski areas rely on domestic skiers, the Alps region attracts the largest number of foreign visitors (30% of visitors to the Alps are foreign) and continues to be the most popular ski destination.

Ski resort operators in Western Europe primarily work locally but recently acquisitions and cross-border collaborations have taken place in attempt to offset any weather related issues of owning a cluster of ski resorts in one geographical area. Ownership of ski resorts in Europe is very fragmented; many are small companies and some are family owned (Skistar, nd).

Eastern Europe

While the ski industry in Western Europe is maturing and skier days are decreasing, the ski industry in Eastern Europe is the fastest growing ski market in terms of both the number of skiers and the development of new ski resorts (32). Eastern Europe and Asia account for 32% of ski visitors worldwide but only 20% of skier visits take place in these regions. Therefore, Eastern Europe already has a large number of domestic skiers and therefore the potential for growth in this market is strong. Currently, Bulgaria is investing in the Bansko ski region and aims to double the current ski area. Serbia is also investing €250million in a project to develop the Stara Planina area. This development aims to be open by 2015 and will include both winter and summer tourist attractions (such as a golf course and 'wellness facilities') (Winter Sports Technology International, 2011). The ski industry is also seeing significant growth in Russia, particularly because it will host the 2014 Winter Olympics which is expected to increase interest in winter sports in general as well as attracting increased investment in the ski industry. Russia is also investing an estimated €11 billion in the 'Peak 5642' project across five resorts in the North Caucasus mountains. The project aims to achieve five million visitors per year by 2020. Azerbaijan is also developing a ski resort in the Caucasus Mountains which will have ten ski lifts. (Winter Sports Technology International, 2011b).

North America

Outside of Europe the largest ski industries can be found in North America (USA and Canada) and Japan. North America is the second largest ski market globally and includes 486 resorts, which attract approximately 60 million skier days per year (Skistar, nd). However, the ski industry in the USA appears to be static and indeed

the number of ski resorts in operation in the USA has declined steadily from 735 in 1982 to 486 in 2011, based on data from the National Ski Areas Association (NSAA, 2012) which is shown in Figure 2.2. Canada has shown only a slight increase in skier days in the year 2010/11.

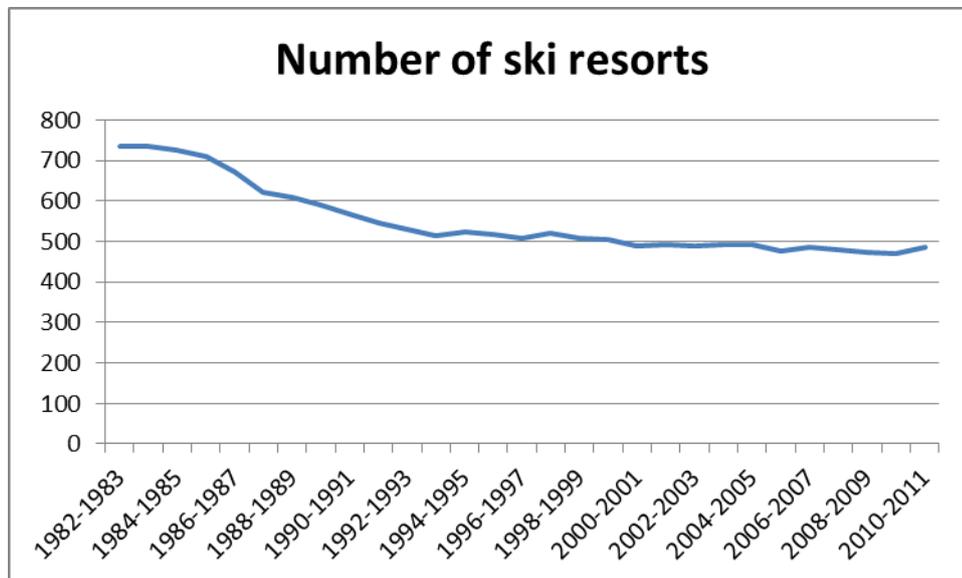


Figure 2.2: Number of ski resorts in operation in the USA

China

The Chinese ski industry has seen significant growth in the past decade; in 1996 there were approximately 10,000 skiers and only nine small skiable hills in China. However, in 2010, this number had grown to an estimated five million skiers and 186 possible ski destinations (Globe and Mail, 2011). The majority of the five million skiers in China are not dedicated skiers but one time visitors to the slopes; however in countries with successful ski industries, ski resorts are visited (repeatedly) by domestic skiers. Within China, resorts on a large scale are being built and developed such as the Secret Garden project in Hebei province which will be opened in stages and will ultimately have 82 ski runs and will have chairlifts and gondolas with the capacity to transport 18,000 guests a day and 2,700 hotel rooms (China Daily, 2011). Developments on such a large scale no longer occur in the traditional markets of Western Europe and North America.

It is important to note that despite significant investment, the ski industry in China has not yet properly taken off but has experienced steady growth. It is projected that the Chinese ski industry will grow in the coming five years, which is expected to bring opportunities for cableways manufacturers (China Daily, 2011).

Japan

The ski industry in Japan has experienced both boom and bust in recent times. Skiing was popular in Japan in the 1980s and early 1990s and as a result more than 600 resorts were in operation. In 1993, at the peak of its popularity, there were 17.7 million skiers in Japan; however this number had dropped to 10.3 million by 2006. As a result of the reduction of skier numbers and the maintenance of high numbers of ski resorts (few resorts have been closed) there is significant over-capacity in the industry and there has been little investment in infrastructure. Some resorts are now beginning to attract foreign visitors (primarily from elsewhere in Asia and Australia) and as a result some ski resorts are experiencing increased visitor numbers.

Overall, within the global ski industry the traditional markets/destinations are seeing decreased visitor numbers and also a declining number of cableways. However, other markets (particularly Eastern Europe and China) are seeing growth both in the number of resorts being created and the number of cableways being installed. However, currently these markets are not growing at a rate fast enough to replace the deficit in the cableways market left by the decline in the number of cableways installed in the traditional ski destinations such as the Alps.

Transportation – Urban and Tourist

In terms of the use of cableways in urban environments, the majority of cableways installed in urban environments have been used for tourism purposes, such as, for example, the gondola lift at Montjuic, Barcelona and the aerial tramway in Koblenz, Germany. Moreover, cableways are also used as a means of transport in locations such as airports and fairgrounds, ferrying people to and from car parks and other areas that may be difficult to access by foot.

Cableways are also increasingly being used as a means of public transport in urban environments which presents significant potential for cableways manufacturers to expand their market. It is estimated that currently the installation of cableways not related to the ski industry account for 20% of Poma's business (Capital, 2012), suggesting that urban installations are becoming an important source of income for the cableways industry. Figure 2.3 illustrates the increase in the number of urban public transport installations in recent years.

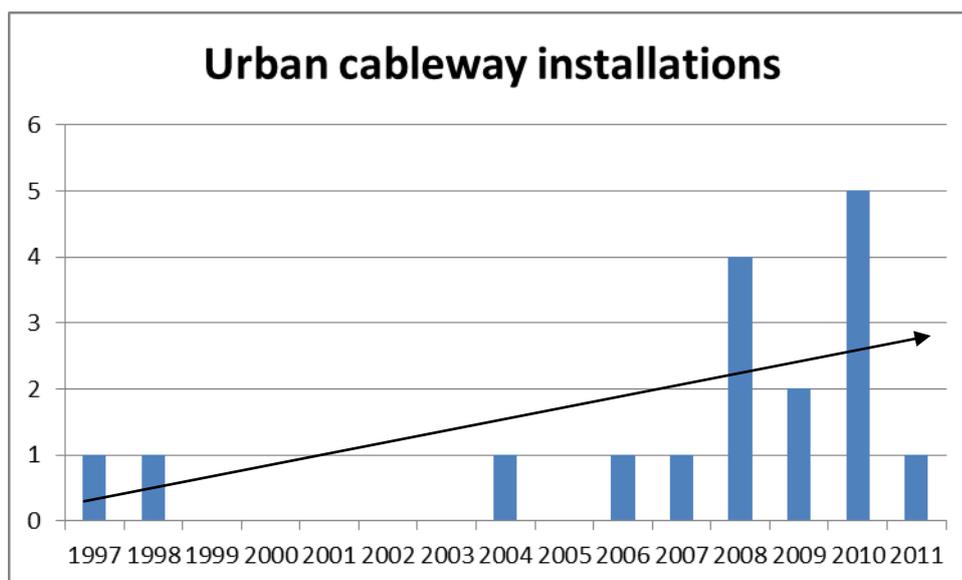


Figure 2.3: Urban Installations in Recent Years (O'Connor and Dale, 2011)

2.3 Industry Structure

2.3.1 Main Players

Cableways Manufacturers in Europe

There are two main industry groups in the cableways industry, the Doppelmayr-Garaventa Group (based in Austria and Switzerland) and a group comprising Leitner (Italy) and Poma (France). These two groups dominate the European and global cableways industries accounting for 90% of the global industry (EC, 2010); the value of their combined market share has been confirmed in communication with these two groups in 2012.

The **Doppelmayr-Garaventa Group** was created in 2002 following the merger of Doppelmayr of Austria and Garaventa of Switzerland and is the global market leader with approximately 14,200 cableway installations in 86 countries. Doppelmayr-Garaventa Group is the market leader and has accounted for approximately around 50% of the value of the market for the past decade.

The types of installations delivered by Doppelmayr-Garaventa in recent years are given in Table 2.12. In 2010/2011 Doppelmayr-Garaventa installed 126 cableways worldwide.

Type of Installation	Year					
	2005	2006	2007	2008	2009	2010
Funiculars	4	3	1	2	5	4
Aerial tramways	7	9	3	6	3	4

Type of Installation	Year					
	2005	2006	2007	2008	2009	2010
Pulsating gondolas	2	2	1	1	1	1
Funifor/Funitel	1	2	1	1	2	2
Tricable ropeways	-	-	-	1	-	2
Combined Installations	4	4	7	3	3	2
Detachable gondolas	31	20	30	23	23	27
Detachable chairlifts	56	66	49	28	35	40
Fixed grip chairlifts	38	53	25	38	20	20
Surface Lifts	28	47	22	27	21	20
Other	2	4	5	6	4	4
Total	162	198	140	128	109	118

Source: Doppelmayr-Garaventa Annual Reports for 2011, 2010, 2009, 2008, 2007, 2006

Leitner has their head office in Sterzing in Northern Italy. In 2000, the parent company of Leitner also acquired Poma. Since the merger, the Leitner and Poma brands have remained independent (unlike Doppelmayr-Garaventa) forming a strategic partnership and combining activities such as the purchase of raw materials and R&D investment. One of the advantages of remaining independent appears to be that both brands continue to exploit their competitive advantage in their domestic markets. The Leitner-Poma Group has a market share of approximately 40-45%; this has remained broadly unchanged over the past decade. Table 2.13 below presents the types of installations delivered by Leitner between 2005 and 2011. In 2010, Leitner and Poma together realised a total of 87 installations.

Type of Installation	Year						
	2005	2006	2007	2008	2009	2010	2011
Detachable gondolas	12	12	10	8	8	14	10
Detachable chairlifts	30	25	17	10	23	18	15
Fixed grip chairlifts	22	15	14	7	8	8	9
Surface lifts	15	11	13	11	7	13	10
Other	3	2	1	2	2	-	1
Total	82	65	55	38	48	53	45

Source: Personal Communication with Leitner (2012)

Poma is based in Grenoble, France, but has subsidiary companies throughout the world. It is estimated that 50% of Poma's business is located within France; however, increasingly strong markets for Poma include North America, Asia (particularly China) and Latin America (where cableways are increasingly being used in an urban setting) (Le Moci, 2010). While business not linked to winter tourism is an area that

is growing in importance, winter tourism continues to be the biggest market for Poma products.

In addition, there are over 30 other cableway manufacturers in Europe. All these companies are significantly smaller than Doppelmayr-Garaventa and Leitner-Poma and most of them are likely to be SMEs. These companies are listed in Table 2.22.

European Manufacturers of Subsystems and Safety Components

In addition, Europe also has a number of manufacturers that supply subsystems and safety components to cableway manufacturers. In some cases, these companies are involved in the process of certification of subsystems and safety components, while in other cases, this may be carried out on their behalf by cableway manufacturers. An indicative (and by no means exhaustive) overview of the numbers of companies involved in manufacturing different subsystems and safety components is given below in Table 2.14. It is of note that these represent very different types of companies, ranging from subsidiaries of cableway manufacturers or of large multinationals to much smaller companies. Where such information is known, it appears that many of these companies are also supplying sectors other than cableways manufacture.

Table 2.14: Numbers of Suppliers of Subsystems and Safety Components	
Subsystem/component Type	Number of Companies
Cables and cable connections	19
Drives, engines and breaks	16
Mechanical equipment	11
Cabins, seats and drag devices	6
Electrotechnical devices	24

Non-EU Cableway Manufacturers

In general, many non-European companies involved in the cableways industry have links to the European manufacturers. For instance, Leitner-Poma was created following the merger of Leitner (of Italy) and Poma (of France) as a joint venture in North America. Leitner-Poma has three sales and services offices across North America (Vermont, Ontario and British Colombia) as well as headquarters in Colorado where design and manufacturing takes place. Leitner-Poma installed over 380 cableways between 1998 and 2008 in North America, New Zealand and Australia (Leitner-Poma, nd). Currently, Leitner-Poma employs 90 people and had an annual turnover of €60 million in 2008 (Le Moci, 2010).

Table 2.15 presents a summary of non-EU manufacturers of cableways.

Table 2.15: Summary of Non-European Cableways Manufacturers
Doppelmayr (North America)
Leitner-Poma (North America)

Table 2.15: Summary of Non-European Cableways Manufacturers
Harusch Lifts (Canada)
Sistem Teleferik (Turkey)
Usha Breco (India)
RITES (India)
Kropivnik (India)
Damodar (India)
Breco Ropeways (India)
Ganpati (India)
Nippon Cable (Japan)
Anzen Sakudo (Japan)
ISB Ingenieria de Montaña (Argentina)
HIM Cableways (India)

2.3.2 Size Distribution of Cableways Manufacturers

Large Companies

As noted earlier, the principal European companies which are active in the global industry are Doppelmayr-Garaventa (market leader), Leitner and Poma. These companies dominate the European and global cableways industries, currently accounting for 90% of the global industry. This dominance is partly secured by existing intellectual property, technical capability and manufacturing capacity (O'Connor and Dale, 2011).

The following tables⁴ show the mergers, acquisitions and market exits which have taken place over the last 30 – 40 years. These tables show that around 50 European companies⁵ may have been subject to mergers and acquisitions over the past 40 years or so while over 20 European companies exited the market. While it is not possible to determine what proportion of these were SMEs (information on turnover of companies that are no longer active is generally not available), it can be reasonably assumed (and indeed there are some indications to that effect) that many of these companies were SMEs. Table 2.22 then provides an overview of cableway manufacturers that are still active (other than those that are part of the Doppelmayr-Garaventa Group or the Leitner-Poma Group). This table indicates that in total there are around 35 cableway manufacturers left in Europe (this includes Norway, Switzerland and Turkey), the vast majority of which appear to be SMEs. It can thus be concluded that the high levels of mergers, acquisitions and market exits have resulted in a high degree of market consolidation, with a limited number of small and medium sized enterprises (SMEs) occupying very small market shares. This view is also shared by EC (2011).

⁴ These tables are based on a large number of sources, including Bergbahnen (nd).

⁵ Please note that this includes Swiss companies.

Table 2.16: Doppelmayr Mergers and Acquisitions	
Year	Merger/Acquisition
1980s	Acquisition of Marchisio (Italy)
1994	Acquisition of PWH (Germany) ropeway patents from O&K (German engineering company) <ul style="list-style-type: none"> • PWH created following the merger of PHB (Germany) (which already was a result of a merger of three companies, namely Pohligh, Heckel and Bleichert) and Weserhütte (Germany) • PWH went bankrupt in 1987 and was sold to O&K
1996	Acquisition of Von Roll (Switzerland) <ul style="list-style-type: none"> • Acquisition of Oehler (Switzerland) cable car division by Von Roll in the 1970s • Acquisition of Buhler (Switzerland) by Von Roll in 1975 • Acquisition of Habegger (Switzerland) by Von Roll in 1982 • Acquisition of Hall Ski Lifts (USA) by Von Roll in 1983
2001	Merger of Hözl (Italy), Agamatic (Italy) and Doppelmayr (Switzerland) to create Doppelmayr Italia <ul style="list-style-type: none"> • Agamatic created in 1981 by Hözl and Doppelmayr (Switzerland) as a subsidiary
2002	Merger with Garaventa
2002	Acquisition of CWA (Switzerland) cableways cabin manufacturer
2005	Acquisition of Partek (USA) which holds patents of Borvig (USA) (ceased operations in 1993)

Table 2.17: Garaventa Mergers and Acquisitions	
Year	Merger/Acquisition
1987	Acquisition of Küpfer (Switzerland)
1992	Merger with SSG (Switzerland) <ul style="list-style-type: none"> • SSG formed in 1987 following the merger of Swoboda (Austria) and Städeli (Switzerland) <ul style="list-style-type: none"> ◦ Städeli possibly acquires Skima (Switzerland) after 1970
1992	Merger of CTEC (USA) and Garaventa (Switzerland) creating Garaventa CTEC (the North American subsidiary of Garaventa)
1996	Merger with Girak (Austria) becoming Girak-Garaventa (outside North America)
2002	Merger with Doppelmayr

Table 2.18: Leitner Ropeways Mergers and Acquisitions	
Year	Merger/Acquisition
1993	Leitner acquired by Seeber Group
1997	Acquisition of Travibat S.a.r.L. (France)
1998	Acquisition of BM Lifts (Canada)
1999	Acquisition of Waagner Biro (Austria)
2000	Seeber Group acquire Poma (France)

Table 2.19: Poma Mergers and Acquisitions	
Year	Merger/Acquisition
1970	Acquisition of SACMI (France)
1981	Poma invests capital in the civil engineering firm COMAG (France) and cableways become their main line of business
1990	Poma invest 20% of the capital in GMM (France)
1991	Acquisition of 90% of SEMER (France)
1992	Acquisition of Agudio (Italy) which becomes Poma subsidiary in Italy
1994	Acquisition of Montagner (France)
2000	Poma acquired by the Seeber Group
2000	Baco (currently known as Baco-Poma) (Switzerland) was (at least partly) purchased by Poma in 2000 and became a Poma representative in Switzerland, the company designed and produced its own cableways until the 1980s and later offered Poma-designed products
2001	Acquisition of SkiRail (France) by Poma

Table 2.20: Mergers and Acquisitions of other companies within the cableways industry	
Year	Merger/Acquisition
early 1970s	Oehler (Switzerland) sold its cableway business unit to Habegger
1985	Acquisition of GMD (Switzerland) by management under the name of Rowema AG (Switzerland)
1990	Acquisition of Montaz-Mautino (France) by Gimar (France) forming GMM (Gimar Montaz-Mautino) <ul style="list-style-type: none"> • Weber (France) acquired by Gimar (France) in the 1980s • Poma (France) have 20% capital in GMM
1993	CCM Finotello (Italy) acquire Marchisio (Italy) from Doppelmayr (Austria)
1997	Schätti (Switzerland) acquires Streiff (Switzerland) becoming Inauen-Schätti
2005	Inauen-Schätti (Switzerland) acquires Niederberger (Switzerland)

In addition, at the beginning of the 1990s, Graffer and Agudio created the company Gradio for the purpose of producing detachable chairlifts. After the relevant chairlifts had been constructed, the two companies ceased to cooperate (Bergbahnen, nd).

Table 2.21 provides examples of companies that are no longer active in the cableways sector. This table provides further evidence of the process of consolidation in the cableways sector and illustrates that companies have still been going out of business over the past decade. However, the analysis of the cableway sector provided by Bergbahnen (nd) suggests that these companies have exited the cableways market for a wide variety of reasons, which in some cases have included non-economic reasons.

Table 2.21: Examples of Manufacturers No Longer Active	
Year	Event
1965	Teburu (Switzerland) ceased production of cableways
1968	Bell (Switzerland) ceased production of cableways

Table 2.21: Examples of Manufacturers No Longer Active	
Year	Event
1969	Carlevaro & Savio (Italy) ceased production of cableways
late 1960s	Braendle (Switzerland) ceased production of cableways
N/A	Piemonte Funivie (Italy) ceased production of cableways
N/A	Neyrpic (France) was created as a merger of Neyret-Beylier and Piccard-Pictet but later withdrew from the cableway business
mid 1970s	Giovanola (Switzerland) ceased production of cableways to focus on rollercoasters; the company went out of business in 2004
N/A	SEBA (Germany) ceased production of cableways
1980	Cables & Monorail (France) produced reversible cableways until 1980
1980	CECIL (France) built cableways in 1980 but then ceased production
N/A	Duport (France) is assumed to be no longer active
Mid-1980s	Zemella (Italy) ceased production of cableways
1980s/1990s	Stemag (Austria) ceased to produce cableways; year not known but after 1988
1980s/1990s	Transporta Chrudim (Czech Republic) ceased cableways production, likely in the 1990s or earlier
NA	Lauber (Switzerland) ceased to be active in the cableways sector
N/A	Nascivera (Italy) went out of business (possibly acquired by Garaventa), year not known but possibly early 1990s
N/A	Hans Trojer (Italy) ceased production of cableways, year not known but possibly late 1980s
N/A	Mostostal Zabrze (Poland) ceased production of cableways following the collapse of the Eastern bloc
N/A	Metasport (Czech Republic) ceased production of cableways
N/A	VÖEST (Austria) was divided into several companies and privatised, production of cableways ceased
1996	Lift Engineering (Yan Lifts) (USA) filed for bankruptcy in July 1996
1996	Felix Wopfner (Austria) went into liquidation
N/A	Guido Meyer (Switzerland), possibly went into liquidation
N/A	Wito (Austria) ceased production of cableways
2000	Heuss (Germany) acquired by Rena (Germany) ceased production of cableways
N/A	De Pretis (Austria) ceased production of cableways
2003	Riblet Tramway Company (USA) ceased manufacturing operations
2004	CDS Transmontana (Czech Republic) went into liquidation
2010	Graffer (Italy but with some production in Slovenia) went into liquidation
2011	Ceretti e Tanfani (Italy) filed for bankruptcy
<i>Sources: Bergbahnen (nd), Lost Ropeways (nd), Skilift Info (nd), Lanove drahy (nd), Lift-World (nd), Trojer (nd)</i>	

SME Cableway Manufacturers in Europe

Table 2.22 lists the European companies involved in the manufacture of cableways and the types of cableways they manufacture; it is likely that the majority of these companies are SMEs (though for example STM Sistem Teleferik appears not to be an

SME). Taken together, these companies represent only 10% of the market. Generally speaking, these companies appear to be more focussed on drag lifts and chair lifts and only a few of them are active in the high-end segments of the market which includes gondolas, funiculars, etc.

Company	Country	Cableway Products
BMF	Switzerland	Shuttle Lifts, Fixed Chairlifts, Detachable Chairlifts, Gondola Lifts, Ski Lifts, Group Lifts, Monorails
Steurer	Switzerland/ Austria	Reversible Ropeways, Funiculars
Borer (Swiss partner of Sunkid)	Switzerland	Children's Drag Lifts
Inauen-Schätti	Switzerland	Gondola Lifts, Aerial Ropeways, Chairlifts
Rowema	Switzerland	Gondolas, Chairlifts, Drag Lifts, Monorail
SHS	Switzerland	Drag Lifts
TTC	Switzerland	Drag Lifts
Sunkid	Austria	Children's Drag Lifts
GMM	France	Fixed Grip Chairlifts, Drag Lifts
MEB Impianti	Italy	Drag Lifts, Chairlifts, Gondola Lifts, Funiculars, Aerial Ropeways
CCM Finotello	Italy	Drag Lifts, Chairlifts, Gondola Lifts
Snowstar	Italy	Chairlifts
SSZ Blahuta	Czech Republic	Drag Lifts
B&J Mikeska	Czech Republic	Children's Drag Lifts
Dikram	Czech Republic	Drag Lifts, Chairlifts
Michalek	Czech Republic	Drag Lifts, Chairlifts
Moment	Czech Republic	Drag Lift
Ski Vojtech	Czech Republic	Drag Lifts
Polar Plus	Czech Republic	Not clear
Tatralift (previously Tatrapoma)	Slovakia	Drag Lifts, Chairlifts
Transmisie	Slovakia/Czech Republic	Drag Lifts
Loipolder SeilbahnTechnik	Germany	Surface Lifts, Fixed Chairlifts, Detachable Chairlifts, Toboggan Lifts
Multiskilift	Germany	Children's Drag Lifts, Snow-tubing Lifts
REAC SA	Spain	Aerial Ropeway, Funiculars, Gondola Lifts, Chairlifts, Drag Lifts
Liftbyggarna	Sweden	Children's Lifts, Drag Lifts Fixed Chairlifts, Detachable Chairlifts, Funiculars
Elster	Poland	Chair Lifts
Patronik	Poland	Drag Lifts
FN Glob	Poland	Drag Lifts
Bachleda	Poland	Drag Lifts
SZTOKFISZ	Poland	N/A
Vintertec Offshore	Finland	Drag Lifts, Chair Lifts, possibly Gondolas

Company	Country	Cableway Products
HMR Voss	Norway	Cable Cars, Funiculars
STM Sistem Teleferik	Turkey	Drag Lifts, Chair Lifts, Gondolas, Reversible Ropeways

2.3.3 Structure of the Cableways Operating Sector

Within Europe ski resorts are the main operators and purchasers of cableways installations. It is estimated that there are currently between 1,500 and over 2,200 cableways operators in Europe (FIANET, 2012). Table 2.23 below presents the number of cableways operators in selected European countries.

Country	Number of Operators
Switzerland	505
Norway	400
France	350
Italy	344 excl. ski schools and 189 ski schools
Austria	254
Finland	100
Germany	60
Poland	60
Sweden	60
Spain	50
Czech Republic and Slovakia	45
Greece	2

Source: FIANET (2012); Remontées Mécaniques Suisses (nd); Ministero dei Trasporti (2012), Communication with the French and Norwegian authorities

Notes: Please note that the information in this table comes from different sources and different sources may be using different definitions of cableway operators. Please also note that in Sweden the above number only includes the estimated number of companies operating cableways but other types of entities (e.g. communes and sports associations) that are not included in this figure also operate cableways. Based on information given on their Internet site by the Swedish Liftowners Association (SLAO - www.slao.se), approximately one half of cableway installations in Sweden were owned and operated by communes (municipal), foundations, associations, clubs or organisations.

According to FIANET (2012) the majority of cableways operators are small, privately owned companies which own one ski resort. However, larger companies which own a group of resorts are increasing as smaller operators are acquired by larger players. In France, 53% of operators are private companies, 29% have mixed ownership (with both private and public investors) and the remaining 18% are state owned (Domaines Skiables de France, 2011b).

The industry in Switzerland appears to be significantly more fragmented with more operators active in Switzerland compared to the other countries listed in Table 2.23. Based on data from Table 2.8, each Swiss operator will have an average of 3.5 cableways. However, each Austrian operator will have an average of 11.8 cableways, French operators 10.7 cableways, and Italian operators 6.4 cableways.

Although ski resorts are expensive to run, turnover for companies in the industry is modest. It is estimated that the largest cableway operators will produce an annual turnover of between €60 million and €70 million per year, medium sized will turnover between €6 million and €12 million and small companies will turnover less than €6 million per year (FIANET, 2012). Small companies account for more than 50% of the industry and it is estimated that >60% of small companies have less than 50 employees. The vast majority of small companies will, in reality, have a turnover of less than €2 million per year (FIANET, 2012).

In order to maintain visitor numbers and remain competitive, operators must invest in infrastructure (such as cableways). Ski resorts are primarily financed by sales of ski passes which permit transport on cableways thus allowing access to ski runs. Ski passes within highly developed resorts with multiple cableways and ski runs cost between €35 and €40 per day (ECC-Net, 2010). However, not all ski resorts and cableway operators follow the same economic model or are financed in the same way. In Austria for example, the owners of hotels within resorts often also conduct the cableway operation. As a result, income from hotels is used when investing in resorts allowing Austria to reinvest €500 million in ski resorts every year (Actu Montagne, 2011). In France (which has a similar income from ski pass sales to Austria) an estimated 25% of income from ski pass sales is reinvested in the ski resort each year, however investment has fallen from €400 million in 2005 to €270 million euros in 2010 (Actu Montagne, 2011). Furthermore, in Sweden all ski lift developments (new or replacement) receive some level of public funding. Operators are able to apply for funds of up to 50% of the development costs; however, private companies must prove that the development will benefit the area as a whole. Consultation has also highlighted the importance of public support (in particular EU funds) for setting up new ski resorts (which require cableway installations) in the Czech Republic.

How operators invest has changed during the past 30 years. Up until the late 1980s, resorts invested in new cableways which increased the size of the resort and turnover. Now, cableways operators invest in *replacement* installations which are more technologically innovative, higher performance and more comfortable but may not create a direct increase in turnover levels (Domaines Skiabiles de France, 2011b). In 2008 and 2009 Switzerland invested a total of €645 million in cableways installations and related activities. This equates to an average of €387 million invested each year, with the majority of this investment (42% per year) spent on replacement cableways and only 6% spent on new cableways installations (Remontées Mécaniques Suisses, 2010).

2.3.4 Supply Chains and Inter-sectoral Dependencies

EU

The global cableways industry is dominated by European companies who have supply chains comprising components from in-house design and manufacturing, components manufactured by subsidiary firms, and components bought from networks of external suppliers. In general, the large companies in the industry (Doppelmayr-Garaventa, Leitner and Poma) have subsidiary companies and are able to conduct more in-house manufacturing than many smaller players in the industry who are reliant on external suppliers of components for the manufacture of their installations. However, even large companies source some components from external suppliers (some of which, may, however, be part of the same group). By way of generalisation, cableway manufacturers typically purchase (at least) cabins, cables and drives externally.

The supply chains of Doppelmayr-Garaventa, Poma and Leitner are now discussed, before exploring the supply chains of the SMEs in the industry.

Doppelmayr-Garaventa

The Doppelmayr-Garaventa Group has production facilities as well as sales and service locations in over 33 countries, including production plants in Austria, Switzerland, Italy, France, Canada, China, USA and Russia (Doppelmayr-Garaventa Press Releases, 2004). Doppelmayr-Garaventa technology is designed and engineered at the main plants in Wolfurt (Austria) and Goldau (Switzerland). While the plant at Doppelmayr Wolfurt focuses on the development of circulating ropeway systems, such as gondolas and chairlifts, Garaventa Goldau develops the technology for reversible aerial tramways and funicular railways.

The Doppelmayr-Garaventa supply chain includes the use of a subsidiary firm, in-house production and external suppliers. The subsidiary CWA Constructions (based in Olten, Switzerland) supplies Doppelmayr-Garaventa with cabins and carriages for cableways. CWA, which has been part of the Doppelmayr-Garaventa group since 2001, is the largest manufacturer of cabins for cableways, with an estimated market share of 65%. It manufactures between 1,500 and 2,300 cabins per year and 80% to 90% of its business comes from the production of cabins. In 2009, CWA had 135 employees (Commission de la Sécurité des Consommateurs, 2009).

Components are also supplied to Doppelmayr-Garaventa by external companies. The Austrian company Teufelberger is a wire rope manufacturer that has supplied more than 50% of Doppelmayr projects with wire ropes, and has been supplying the Doppelmayr section of the company for more than 60 years (Teufelberger, 2008). Wire rope manufacturers such as Redaelli (Italy) and Fatzer AG (Switzerland) have also supplied Doppelmayr-Garaventa. Furthermore, all Garaventa hoisting systems use drums supplied by the German arm of the American company Lebus (Lebus, nd) and furthermore, Garaventa has been supplied with KAISER (Germany) precision boring heads for more than 30 years (Kaiser, nd).

From the data available it is also suggested that Doppelmayr-Garaventa produces components (although in unknown quantities). Data from the French notified body STRMTG, states that between 2004 and 2011, 57 Doppelmayr-Garaventa sub-systems, including, drives and brakes, mechanical equipment, electro technical equipment, cables and cable connections, line engineering systems, rescue systems and maintenance vehicles (among others) were certified (STRMTG, 2011b). However, these data should be interpreted with caution as it appears possible that large manufacturers may in some cases certify parts on behalf of their suppliers.

From data collected from the industry it appears that the manufacture of electronic devices has only recently become an 'in-house' activity for cableways manufacturers as they were previously manufactured and supplied by external companies. According to an electronics manufacturer that supplies the cableway industry, in the past, manufacturers such as Doppelmayr-Garaventa did not produce any of the electronic equipment for their installations and these were supplied externally. However, as production now takes place in-house, in Italy Doppelmayr-Garaventa and Leitner have approximately 80% of the market for electrical components for cableways while the remaining 20% of the market is divided between subsystem manufacturers.

Leitner

Leitner currently has facilities in Europe, USA, Canada, India and China as well as 70 sub-companies, such as Leitner Austria, Telefericos y Nieve, Leitner Austria etc. (Leitner-Poma, nd). Leitner Ropeways technology is designed and engineered at the main plants in Sterzing (Italy) and Telfs (Austria). In addition, Leitner Ropeways has recently established a facility in Stará Ľubovňa in north-western Slovakia. The facility, which includes manufacturing activity and a sales and service office opened in early 2011 and has 40 employees.

The Leitner supply chain is based on in-house production, subsidiary firms and external suppliers. Since the 2000 acquisition of Poma by the Seeber Group, Leitner and Poma have engaged in technical cooperation which has included staff and subsidiaries from both companies working together and contributing to the supply chains of both companies. An example of this cooperation is the Leitner installation of a detachable Gondola at Kronplatz, Italy, which used SIGMA ten passenger cabins with heated seats (Leitner AG, 2012c).

All mechanical engineering as well as project management and building site management are done in-house. In-house manufacturing includes stations, mechanical equipment such as breaks, main and emergency drive units, sheaves and roller-batteries, tensioning devices, chairs and grips for all its installation types. Leitner engineers and produces electronic devices for its ropeway installations. In this regard, Leitner has developed and produces its own electrical motor (direct drive) to comply with the specific technical requirements of cableway installations.

Cabins and station covering are supplied by SIGMA. Ropes are supplied by Redaelli, Arcelor-Mittal, Fatzer and Teufelberger.

Poma

The Poma group has an extensive group of subsidiary companies located within France and in the USA, Canada, Switzerland, Italy, Sweden, Austria, China, Bulgaria and Japan. Poma has five production sites in France (in Isere, Savoie and Haute-Savoie), one in the USA and one in China (Le Moci, 2010). However, it has been noted that the knowledge and expertise associated with the manufacture of Poma cableways is centred on France. The Chinese production facility for example only assembles components that were manufactured in France in a direct attempt to keep the know-how in France (Le Moci, 2010). Furthermore, when Poma outsourced part of its supply chain and used a network of four subcontractors and suppliers in Slovakia for one year, components were manufactured in Slovakia but sent back to France for further processing and assembly (UNIDO⁶, 2003).

The Poma group has an extensive group of subsidiary companies which supply subsystems and conduct activities required in the installation of cableways. The following subsidiary companies are active in the Poma supply chain:

- **Sigma** (France) manufactures carriages and cabins for cableways and has been part of the Poma group since 1979. In 2008 Sigma had manufactured 1,500 cabins.
- **SEMER** (France) conducts engineering and produces electrical equipment and industrial automated systems and is currently 90% owned by Poma. In 2010 SEMER had 90 employees and a turnover of €17.4 million (SEMER, nd). According to SEMER it conducts 65% of business in France, 13% in Asia, 4% in Europe, 3% in North America, 2% in South America and 13% in Africa.
- **Sacmi**, which appears to be involved in the construction of Poma terminals.
- **COMAG** which is involved in civil engineering and the installation of cableways in mountain locations and is based in Savoie, France. In 2006 COMAG had a turnover of €17.5 million and had 210 employees (COMAG, nd).

Like Doppelmayr-Garaventa, Poma also appears to produce some parts in-house. Data from STRMTG (2011b) shows that between 2004 and 2011, Poma (and its subsidiary companies) had 171 sub-systems certified by STRMTG, these sub-systems include driving and winding stations, rope loops, electro technical and mechanical devices, drives and brakes and cables and cable connections, among others. As above, while indicative of the structure of the cableways sector, these data should be treated with caution as large companies may be certifying some products on behalf of their suppliers. Poma also uses external suppliers for components such as wire ropes; for example Fatzer AG supplied the wire ropes for the Leitner-Poma renovation of the Roosevelt Island aerial tramway.

⁶ UNIDO – United Nations Industrial Development Organisation

SMEs

In general, many small manufacturers within the industry focus on the installation of less complicated and smaller cableways in the form of drag lifts and basic chairlifts. However, as shown in Table 2.22, there are exceptions with several SMEs also offering more complicated high-end products. Based on Table 2.22, it can be assumed that of the 32 SME cableway manufacturers, approximately two-thirds may be producing drag lifts and basic chairlifts.

While it is unknown how the supply chain of every SME in the industry functions, a small cableway manufacturer stated that it relies heavily upon sub-contractors and suppliers. For example, this company sub-contracts activities such as welding as the small nature of the company means it is unable to provide the necessary expertise in this area. On the other hand, another SME manufacturer stated that they produce many components (such as clamps) in-house but purchase other parts (such as engines) externally.

Furthermore, since the Directive was introduced in 2004 the industry has experienced increased levels of cooperation. As a result of the expense involved in certifying new products under the Directive, it is necessary for some companies to cooperate in order to offset the financial burden. Also, many SMEs do not introduce new components or subsystems frequently as the costs involved in certification are too high. This is supported by the data provided by STRMTG (2011b) regarding the number of subsystems approved by STRMTG from 2004 to 2011. The quantity of certifications submitted by SMEs (of both manufacturers of whole installations and of subsystems) is significantly lower than those submitted by the large companies (the two large manufacturer groups actually submitted the certifications for two-thirds of components). However, as noted earlier, it is possible that large manufacturers may in some cases submit components for certification on behalf of their suppliers.

2.3.5 Identification and Ownership of Key Industry Clusters

At the European level, the cableways industry is clustered in and around the Alps (as illustrated in Figure 2.4). The Alps are currently the largest market for cableways and large numbers of installations already exist in this area. As a result, within Europe the cableways industry is centred on France, Switzerland, Austria and Italy with comparatively lesser manufacturing activity occurring in other European countries.



Figure 2.4: The Alps (Reproduced from Johomaps (2006))

In France and Switzerland, the cableways industry is more clustered in comparison with Italy and Austria. In France, the epicentre of the industry is the town of Grenoble in the South East of France, while in Switzerland a large proportion of companies involved in the cableways industry are located in the North East of the country. In Austria and Italy, however, the industry is less clustered and more dispersed across the alpine regions of these countries.

Manufacturers of installations and subsystems and companies involved in cableways planning and consultation are all located in close proximity to the Alps. This location offers significant strategic advantages for companies. Most notably, manufacturers have quick and easy access to each other and to customers in their national markets as well as those in the Alps within neighbouring countries. This also facilitates a more efficient after sales and maintenance service.

While the European industry is currently centred on the traditional cableways markets, manufacturing is beginning to take place outside this area, reflecting changing trends in the industry. Leitner, for example, have recently opened a manufacturing facility in Slovakia, as a result of increasing demand from Eastern Europe. This allows closer contact and easier access not only with Slovakia but also other countries of Eastern Europe.

France

South East France, in the region of Rhône-Alpes, particularly around the cities of Grenoble and Lyon, has become a hub of ski and cableways activity. Manufacturers

of ski equipment are located here as are companies of the Poma group, the manufacturer GMM and many manufacturers of component parts for the cableways industry. Manufacturers of ropes, cabins, control systems, electronic monitoring devices and station accessories as well as planning and consulting companies are all located within this region.

Grenoble is situated at the foot of the Alps, close to both the Swiss and Italian borders therefore companies located in South East France have relatively quick and easy access to the large cableways markets of France, Italy and Switzerland. This location is also particularly beneficial for manufacturers as it allows them to provide an efficient after sales and maintenance service for installations in these countries. Table 2.24 lists some of the companies involved in the cableways industry which are located in South East France, however this list is by not exclusive. The locations of each company are also presented in the map in Figure 2.5 in order to better illustrate the location of each company in relation to each other and the proximity to the borders with Switzerland and Italy.

The ‘Mountain Industries Cluster of Rhône-Alpes’ (CIM) was established in 2006 and aims to bring companies involved in the ski industry (and other winter sports) and mountain industries with Rhône-Alpes together to promote internationalisation, innovation and performance (CIM, nd). The organisation also promotes Rhône-Alpes as a centre of expertise for all ski and mountain related know-how.



Figure 2.5: Location of Cluster of Cableways Activity in South East France

Table 2.24: Cableway Related Companies Located in South East France			
Figure on Map	Company	Activity	Location
A	GMM	Manufacturer	Grenoble
	Poma	Manufacturer	Voreppe (outskirts of Grenoble)

Table 2.24: Cableway Related Companies Located in South East France			
Figure on Map	Company	Activity	Location
B	HALEC S.A.	Cable Inspections, Cable Safety Equipment	Crolles
C	Sacmi	Poma subsidiary	Montmélian
D	Montagne et Neige Developpement	Engineering, ski resort installation and security, risk prevention	Saint-Hélène du Lac
E	Sigma	Cabin Manufacturer (Poma subsidiary)	Veyrins
F	Joly et Philippe	Mountain Installations	Albertville
G	SEMER S.A.	Automation and Electronics (90% owned by Poma)	La Barthie
H	Seirel Automation	Cableways Renovations, Remote Radio Transmission, Safety Systems	Saint-Priest
I	Kriwan	Control Systems (Wind Sensors)	Vaulx-en-Velin
J	SkiRail	Poma subsidiary often involved in the manufacture of inclined lifts and small funiculars)	Sillingy
K	COMAG	Civil Engineering and Mountain Installations (Poma subsidiary)	Bourg-Saint-Maurice
L	Sunkid France	Sunkid representative in France	St. Pierre en Facigny

Switzerland

Although the Alps (and the Swiss ski industry) are spread geographically across Switzerland, the cableways manufacturing industry is most heavily concentrated in the North East of the country close to the borders with Germany and Austria (as illustrated in Figure 2.6). Interestingly, few companies are located in the South and West of Switzerland in areas bordering France and Italy. However, as an example, Baco is located in Steffisburg and as such is not shown on the map as it is not located in the North East of the country. Large manufacturers are located in North East Switzerland, as are manufacturers of subsystems such as wire ropes, cabins and control systems. From this location manufacturers have relatively quick and easy access to the cableways markets within the West of Austria (which has a large number of ski resorts) as well as the South of Germany; however this location inhibits access to the Alps of France and also Italy. Table 2.25 lists some of the companies involved in the cableways industry which are located in the North East of Switzerland, however this list is not exclusive. Figure 2.6 illustrates the locations of these companies in relation to each other and also within the geography of Europe.

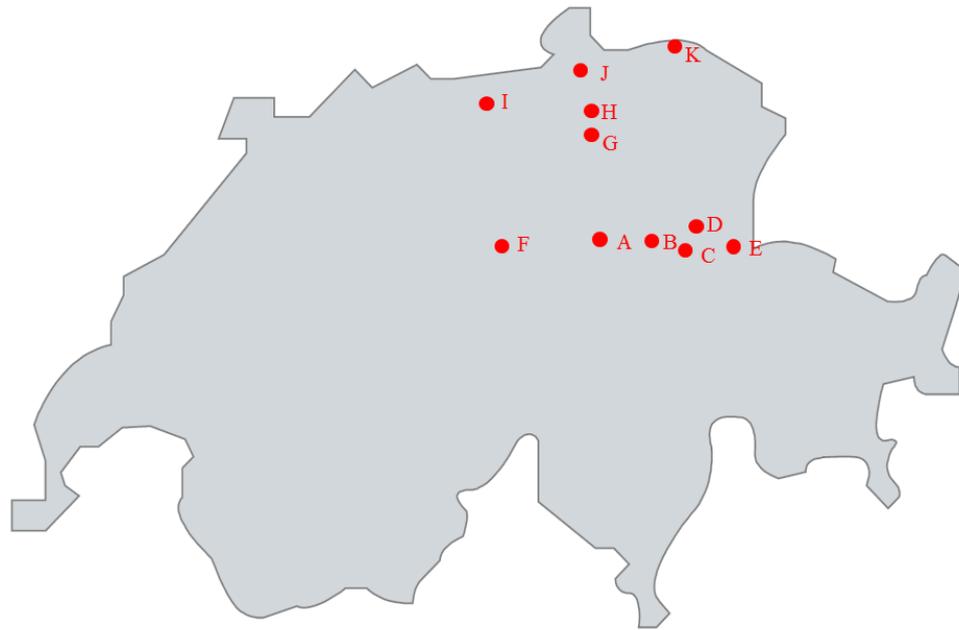


Figure 2.6: Location of Cluster of Cableways Activity in Switzerland

Table 2.25: Cableways Related Companies Located in Switzerland			
Figure on Map	Company	Activity	Location
A	Doppelmayr-Garaventa	Manufacturer	Goldau
B	Steurer	Manufacturer	Glarus
C	Inauen-Schatti	Manufacturer	Schwanden
D	BMF Bartholet	Manufacturer	Flums
E	Cobinet AG	Mechanical Equipment	Sargans
F	Frey AG	Control Systems	Stans
G	BIBUS AG	Engineering	Fehraltorf
H	Rowema	Manufacturer	Dubendorf
I	CWA Constructions AG	Cabin Manufacturer	Olten
J	Kissling Gears	Gear systems	Bachenbulach
K	Fatzer AG	Wire Rope Manufacturer	Romanshorn

Italy

Northern Italy is also a hub of cableways manufacturing activity; however activity is not centred on particular towns but is rather spread across the Alps of Northern Italy. Manufacturers of cableways installations such as Leitner, CCM Finotello and MEB Impianti are located here as are manufacturers of subsystems such as wire ropes, cabins and metal infrastructure. Importantly, companies involved in supplying electronic systems and devices to the cableways industry are located in and around the

city of Vicenza, which is a centre of mechanical and electronic knowledge and expertise.

Northern Italy is located close to the French, Swiss, Austrian and Slovenian borders allowing companies in this location quick and easy access to the cableways markets within these countries in addition to the Italian market. This location is also particularly beneficial for manufacturers as it allows them to provide an efficient after sales and maintenance service for installations in these countries. Table 2.26 lists some of the companies involved in the cableways industry which are located in Northern Italy; however this list is not exclusive. Their location is also illustrated in the map in Figure 2.7.



Figure 2.7: Location of Cableways Activity in Italy

Table 2.26: Cableways Related Companies Located in Northern Italy			
Figure on Map	Company	Activity	Location
A	Leitner (HQ)	Manufacturer	Vipiteno (Sterzing)
B	Funitek	Turnkey Systems and Electrical Equipment	Bolzano
C	Sosvi Meccanica	Metal Work (construction of pylons etc.)	Belluno
D	Scame Service Srl	Electric Motors	Gorizia
E	MET srl Elettronica Industriale	Electronic Systems	Brogliano, Vicenza
	EEI	Electronic Systems	Vicenza
	Reel	Electronic Systems	Ponte di Nanto
F	Snowstar	Manufacturer	Lavis, Trento

Table 2.26: Cableways Related Companies Located in Northern Italy			
Figure on Map	Company	Activity	Location
G	MEB Impianti	Manufacturer	Bergamo
H	Carrozzeria Cavallini	Manufacturer of Buildings for Cableway Stations	Morbegno, Sondrio, Lombardia
I	Imequadri Duestelle	Electronic Systems	Milan
	Ansaldo	Electronic Systems	Milan
	Redaelli Wire Ropes	Wire Ropes Manufacturer	Milan
K	CCM Finotello	Manufacturer	Turin
	Sicme Motori Srl	Electrical Motors	Turin
	Agudio	Manufacturer	Turin
L	Resinvetro Srl	Cabin manufacturer	Dronero

Austria

The cableways industry in Austria is geographically spread across the country with no cluster of activity in one particular area or town. Manufacturers of installations such as Doppelmayr-Garaventa, Reisch and Sunkid are located in the West of Austria; an area which is densely populated with ski resorts. This location not only permits quick and easy access to national customers but also to the markets of Switzerland, Germany and Italy. Austria is also home to producers of sub-systems such as electrical systems, wire ropes and gear systems. Table 2.27 lists some of the companies involved in the cableways industry which manufacture in Austria; however this list is not exclusive. Their geographic location is illustrated in Figure 2.8.

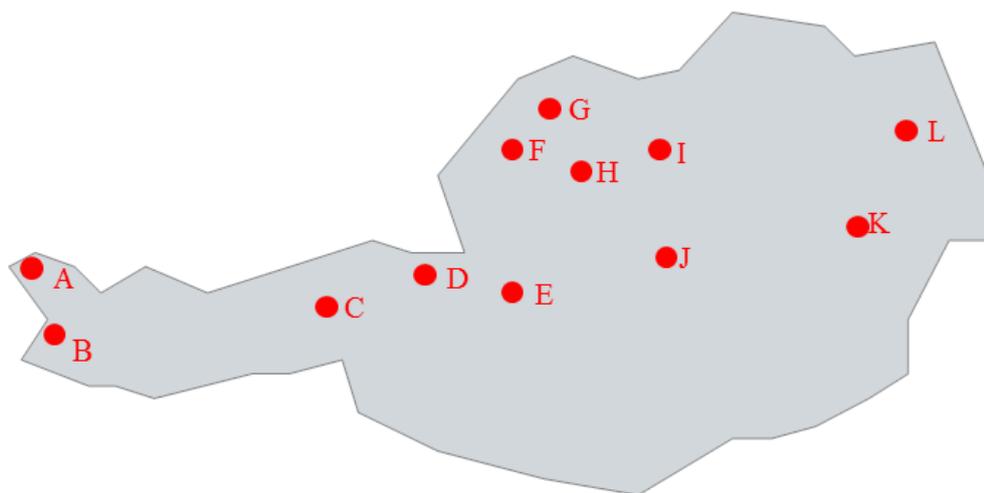


Figure 2.8: Location of Cableways Activity in Austria

Table 2.27: Cableways Related Companies Located in Austria			
Figure on Map	Company	Activity	Location
A	Doppelmayr-Garaventa	Manufacturer	Wolfurt
B	Reisch	Manufacturer	Frastanz
C	Sun-kid	Manufacturer	Imst
	Leitner	Manufacturer	Telfs
D	Elektro Berchtold	Electronic systems	Pettnau
E	Siemens Alpine Technology	Electrical drive, automation and visualisation	Innsbruck
F	Carvatech	Cabin manufacturer	Schloss
G	Hoeglinger Elektromotoren	Electric motors	Lambrechten
H	Teufelberger Wire Ropes	Wire Ropes	Wels
I	Eisenbeiss	Gear systems	Enns
J	Martin	Roof and electric mountings for cable cars (for Doppelmayr only)	Mautern
K	Semperit	Sheave Liners	Wimpassing
L	ATB Motors	Electric motors	Vienna
	Leitner	Design activity	Vienna

2.4 International Trade

2.4.1 Impacts on Intra-EU Trade

In general, the harmonisation of the internal market would mean that subsystems and safety components which are CE marked can move freely across borders and do not have to be approved separately in each country. This promotes competitiveness for exporting companies.

Unfortunately, due to the higher number of mergers and acquisitions in the past decade, the impact of the Directive on competitive advantage (or opening up national markets) is difficult to clearly establish. As can be seen from Table 2.5, the French manufacturer Poma is still strong in France, accounting for 43% of the new installations in France in 2011, while its competitors Doppelmayr-Garaventa and Leitner installed only 12% and 5% respectively. A similar trend can be seen for the Italian manufacturer, Leitner which is equally strong in Italy, accounting for 40% of all new cableway installations in Italy (as shown in Table 2.6). Interestingly while Doppelmayr-Garaventa installed around 35% of the new installations in Italy, when the market shares of CCM Finotello and MEB Impianti (two smaller Italian firms) are included (18% and 5% respectively of new installations in 2008), it is clear that local businesses enjoy a distinct competitive advantage compared to non-local firms.

Therefore, on the one hand, although manufacturers still maintain a strong market presence in their national markets, there are indications that the markets within Europe are now more international than a decade or so ago. For example, it was

noted that up until 2000, the Italian market was closed to external competitors that only constructed one or two installations but this changed and is continuing to change (even though Italian companies still dominate the Italian market). This increased openness of national markets appears to be linked to the Directive removing trade barriers in the form of different national requirements and standards.

For certain cableway products, the markets are dominated by companies which have larger market shares in their home countries. For example, the rope sector remains largely national which may be linked to the fact that the vast majority of ropes are highly customised products that are designed for specific cableways and there are still national variations in traditions and habits between the main markets (Austria, France and Italy).

It also seems to the case that there are still occasional misunderstandings between national authorities and non-local manufacturers since approval of installations remains within the competence of national governments. For example, consultation shows that the Czech Republic requires that, in case of emergency, all passengers have to be evacuated within 2 hours rather than within the 3.5 hours which is a common requirement elsewhere in the EU. This resulted in a delay in approving a gondola installation in the Czech Republic which was supplied by a manufacturer from another country. Approval was withheld until the project was changed to include a rescue car with a capacity of fifteen, rather than the initially planned nine persons.

A perceived shortcoming in the current framework is linked to the fact that the Directive is applicable to the installations built and put into service as from 3 May 2004, and to subsystems and safety components placed on the market as from that date. In Hungary, in recent years, no new ski lifts were installed and the market was fully served by second hand cableways which may predate the Directive but only required an automatic approval without new conformity assessments.⁷ In the Czech Republic, in recent years, two-thirds of installations were second hand ski-lifts⁸ and the authorities expressed concerns about automatic approval of 20-30 year old second hand installations.⁹ Considering the long lifespan of cableway installations and the increasing trade of second hand ski lifts in particular from the Alpine countries to the New Member States, cableway markets in Member States which purchase large numbers of second-hand cableways appear to be predominantly outside the scope of the Directive. In this regard, it is also noted that EC (2011) highlights that there have been difficulties in the application of the Directive in respect of changes to existing installations, as it is sometimes difficult to identify the changes for which a new authorisation for putting into service is required under the different legislations of Member States.

⁷ Interview with the Hungarian Ministry of National Development, Department of Transport, 1st March 2012.

⁸ Interview with a Notified Body in the Czech Republic, 15th March 2012.

⁹ Joint interview with the Czech Ministry of Transport and with the Czech Association of Cableway Operators, 6th March 2012.

2.4.2 Imports

The major manufacturers of cableways are based in Europe and, as such, there are unlikely to be any imports of cableways into Europe. However, a small manufacturer of ropes stated that the Directive helped them in terms of putting them at an advantage vis-à-vis their competitors from the Far East who were not able to supply the necessary conformity assessment documents. Data are available from Eurostat regarding imports from countries outside the EU27 under the HS code 842860. This code includes: teleferics, chair-lifts, ski-drag lines and traction mechanisms for funiculars. It is expected that this code may include items which do not apply specifically to cableways installations designed to carry persons, therefore the accuracy of the data may be questioned. Table 2.27 presents the total value (in €) of imports of cableways by country (under the code 842860) based on data from the Eurostat database. The development of total imports under Category HS 842860 between 2001 and 2011 is also shown graphically in Figure 2.9 on Page 38. However, it should be noted that this code may include items which do not apply specifically to cableways installations designed to carry persons. According to COMTRADE on a global scale the leading importing countries for cableways are China, Turkey and Switzerland.

2.4.3 Exports

Main Export Markets

The main export markets for cableways appear to be changing. For instance, Japan was a major export market in the past. Within Japan, the principal players are Nippon Cable, which holds the licence for Doppelmayr-Garaventa products, and Anzen Sakudo which licences Poma technology. Today, Japan has an established ski industry with over 200 ski resorts and the industry can be said to be mature. On the other hand, the wider Asian region is experiencing increased use of cableways. At present, there are no major manufacturers of cableways (DARE, 2009), although there are six companies which manufacture cableways in this region.

European exports are helped by the fact that the coverage of the Directive is broader than the EU as conformity with European harmonised standards may be the preferred means of demonstrating safety in many non-EU locations, too (perhaps with the exception of North America); for example, a rope manufacturer stated that they use the European harmonised standard to sell ropes globally. In addition, there is an indication that a large manufacturer based in Europe also occasionally uses standards when exporting to non-European locations. Data regarding the total volume of cableways (as specified under HS code 842860 – teleferics, chair-lifts, ski-drag lines and traction mechanisms for funiculars) exported by the EU are available from Eurostat. As above, it is expected that this code may include items which do not apply specifically to cableways installations designed to carry persons, therefore the accuracy of the data may be questioned. Table 2.28 presents the total value of exports (in euros) from the EU from 2001 to 2011, with some of this information also shown graphically Figure 2.9. The largest exporting countries are those that conduct

cableways manufacturing notably Austria, France and Italy. This data is largely consistent with that provided by COMTRADE.

Information on main export markets is also known for some of the major players in the cableways sector.

Doppelmayr-Garaventa

Data from Doppelmayr-Garaventa suggests that of the 160 cableways installed in 2003/2004:

- 44% were in Europe (excluding Austria);
- 32% were in Austria;
- 13% were in the Rest of the World; and
- 11% were in the USA and Canada.

Therefore, according to this data, 24% of Doppelmayr-Garaventa installations were installed outside of Europe. However, by 2010/2011 of the 126 cableways installed:

- 66% were in Europe, of which:
 - 20% were in Austria;
 - 10% were in Switzerland;
 - 8% were in Italy;
 - 6% were in France;
 - 5% were in the Czech Republic;
 - 4% were in Germany; and
 - 13% were in other European countries (Spain, Croatia, Slovakia, Bulgaria, Serbia, Poland, Finland, Norway, Andorra, and Romania).
- 19% were in the rest of the world; and
- 15% were in the USA and Canada.

Consequently, by 2010/2011, Doppelmayr-Garaventa was installing 34% of its installations outside Europe, compared to 24% in 2003.

Poma

Poma appears to derive 60% of its turnover from international installations (Aldebert, 2011) but it is not known if this refers markets outside of Europe or France.

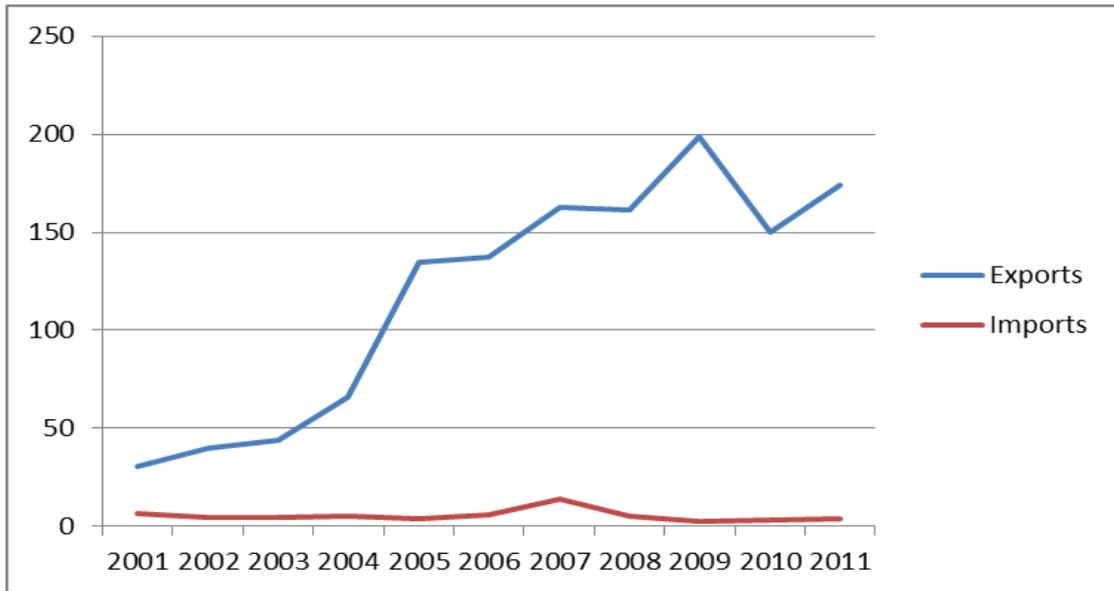


Figure 2.9: Imports and exports of products covered by HS code 842860 into/out of the EU27 in € millions (2001-2011). Source: Eurostat

Table 2.28: Total Value (in Euros) of Imports by Country under HS Code 842860											
Country	Year										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Austria	860,484	752,853	1,364,735	406,111	45,350	431,452	94,834	628,754	915,438	700,187	390,407
Belgium	70,164	3,641	-	88,074	-	38,821	-	-	-	-	-
Bulgaria	-	-	52,277	-	31,968	198,268	65,501	71,105	-	79,059	-
Cyprus	38,475	1,651,957	4,233	3,011	5,930	-	-	-	-	-	3,268
Czech Republic	27,035	11,189	25,381	-	2,714	-	2,853	-	53,143	429,111	-
Germany	419,759	61,080	37,556	288,920	486,140	116,435	37,813	240,220	4,803	49,746	86,678
Denmark	-	7,125	196,858	68,366	20,812	12	42,192	116,282	142,929	138,328	2,016
Estonia	-	-	-	-	-	-	-	-	-	-	-
Spain	16,373	-	-	-	-	352,564	21,759	2,437	-	-	-
Finland	-	-	6,930	4,181	-	-	-	-	-	-	-
France	1,602,232	118,634	6,055	253,606	169,230	240,397	1,116,479	267,067	-	717,872	634,711
United Kingdom	2,935,739	2,153,879	1,890,180	3,058,897	2,988,827	4,299,963	3,419,811	3,041,246	1,012,067	868,442	1,207,802
Greece	-	-	-	-	-	-	-	6,830	-	-	-
Hungary	-	0	-	-	-	-	-	-	-	-	-
Ireland	93	-	51,651	12,822	18,026	8,383	48,206	102,738	118,257	55,504	180,489
Italy	211,599	6,011	895,342	1,094,897	1,546	86,561	311,279	18,900	24,915	149,865	966,209
Lithuania	-	-	-	-	-	-	-	79,300	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	381	-	-	31,650	-	-	-	-	3,597
Malta	-	-	-	-	-	-	1,139	-	-	-	1,643
Netherlands	67,036	76,071	103,160	4,279	22,144	-	5,371	-	733	-	4,151
Poland	-	-	-	865	2,260	26,266	8,047,362	593,935	27,295	-	-

Country	Year										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Portugal	-	-	-	-	-	-	-	-	-	-	-
Romania	3,291	-	30,404	-	-	241,415	291,450	-	-	39,216	189,380
Sweden	425	1,680	36,775	84,434	62,610	18,175	43,764	673	3,451	26,828	11,422
Slovenia	-	-	42,000	-	-	20,987	-	-	-	-	-
Slovakia	-	-	-	-	-	45,909	258,108	-	66,484	-	46,104
Total	6,252,705	4,844,120	4,743,918	5,368,463	3,857,557	6,157,258	13,807,921	5,169,487	2,369,515	3,254,158	3,727,877

Source: Eurostat (2012)

Country	Year										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Austria	19,682,267	25,552,672	22,579,012	39,543,523	91,923,735	96,062,107	100,862,719	100,263,249	138,837,394	99,445,022	113,436,704
Belgium	-	-	42,678	24,363	-	85,242	25,500	5,128,822	1,241,638	2,237,556	2,521,664
Bulgaria	-	650	-	-	-	7,500	35,001	20,001	-	-	-
Cyprus	-	-	-	-	-	-	-	7,456	-	-	-
Czech Republic	21,067	502,236	477,823	1,082,946	483,332	229	80,730	22,980	103,773	-	30,892
Germany	1,175,168	1,173,145	2,010,879	1,305,413	1,953,708	2,437,857	4,865,779	2,709,408	3,089,969	4,448,680	6,168,794
Denmark	174,816	82,865	173,062	90,220	35,028	89,814	131,001	841,718	396,694	492,145	1,306,388
Estonia	-	-	-	2,085	2,000	-	-	11,000	-	-	-
Spain	2,950	38,000	27,935	497,437	234,915	3,788,696	256,653	1,417,231	50,913	16,716	17,312
Finland	-	3,518	5,617	38,660	38,250	17,500	20,062	14,982	-	33,900	-

Table 2.29: Total Value (in Euros) of Exports by Country under HS Code 842860											
Country	Year										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
France	2,838,700	7,429,544	9,480,407	6,360,319	12,842,187	9,615,576	37,048,139	27,742,377	31,656,195	22,837,958	18,163,103
United Kingdom	477,490	964,036	2,195,489	1,200,396	1,802,593	1,937,064	2,660,612	5,400,281	1,700,281	2,450,386	2,471,139
Greece	-	-	-	-	-	-	-	-	-	-	-
Hungary	-	-	-	-	-	0	0	0	-	385,387	2,831
Ireland	-	8,241	-	1,540	3,630	50,741	1,036	-	-	46,582	-
Italy	5,687,890	3,477,541	6,457,253	13,168,311	22,900,906	21,539,199	13,415,559	16,649,391	18,969,898	14,693,800	20,737,410
Lithuania	-	-	-	-	-	268	319,800	-	1,224,660	-	5,253,550
Luxembourg	-	-	-	-	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	15,144	-	-	-	13,166	476,160
Malta	-	-	-	-	-	-	-	-	-	-	-
Netherlands	65,516	501,578	284,737	299,744	74,850	10,138	7,371	6,844	2,950	1,843,389	248,994
Poland	-	-	-	36,886	2,012	4,310	287,232	222,339	919	36,121	1,252,976
Portugal	54,377	-	-	-	-	-	-	-	-	-	-
Romania	-	-	-	-	-	-	-	-	-	105,295	6,382
Sweden	414,193	238,237	276,768	923,878	262,945	730,776	434,167	178,281	299,803	627,232	617,113
Slovenia	402	-	282	12,687	19,415	636,904	773,269	28,052	1,402,445	331,800	7,162
Slovakia	-	-	-	1,182,824	1,912,394	592,067	1,294,348	696,390	0	162,203	1,360,436
Total	30,594,836	39,972,263	44,011,942	65,770,962	134,491,900	137,651,132	162,518,978	161,360,802	198,977,532	150,207,338	174,079,010

Source: Eurostat (2012)

Proportion and Nature of Exports in European Production

The types of cableways which can be found in some of the export markets, for instance, China and Russia, may provide some indication of the types of products exported by European companies (although, off course, some cableways in these countries may have been supplied by non-European companies).

In 2010, it was estimated that China had 869 cableways, 89% of which were fixed grip lifts and surface lifts while 5.4% were mono-cable detachable lifts. Importantly, 94% of the 869 cableways were domestically produced while the remaining 6% were imported. On average, China has seen the completion of 30 cableways per year since 2000 (Qiang, 2011). China offers potential for cableways manufacturers: Leitner-Poma and Doppelmayr have both established offices in China to capture the detachable chair and gondola market (SAM, 2010). Furthermore, as of December 2010, the Doppelmayr Group have installed 43 cableways in China (Doppelmayr USA, nd).

Type of Installation	Total Number
Funicular	25
Reversible cable ropeways	25
Monocable aerial ropeway with continuous movement and cabins	23
Monocable gondola with pulsed movement	33
Detachable Chairlift	3
Fixed Grip Chairlift	292
Fixed Surface Lift	62
Low Level Ski Tow	320
Total Cableways	391
Total Surface Ski Lifts	382
Total Installations	773
<i>Source: OITAF (2009)</i>	

Type of Installation	Total Number
Aerial Ropeway	86
Ski Tow	325
Funicular	3
<i>Source: OITAF (2009)</i>	

2.4.4 Extent of Foreign Direct Investment and Competition with Other World Areas

In future, it is likely that there will be increased competition from local manufacturers in emerging and growing markets in Asia and China. It is unclear to what extent this will affect the dominant position of the big European companies.

There are also strategic considerations in understanding how the European companies operate internationally. For instance, Doppelmayr USA is a subsidiary of Doppelmayr-Garaventa and was formed following the merger of the North American subsidiary of Doppelmayr (Doppelmayr North America) and Garaventa (Garaventa CTEC) in 2002. Doppelmayr has offices and manufacturing capabilities in Salt Lake City, Utah and Saint-Jerome, Quebec. It is estimated that as of December 2010 Doppelmayr had installed 570 cableways installations in the USA (which includes installations by the companies prior to the merger in 2002).

2.5 Importance of the Cableways Sector

2.5.1 Production and Production Capacity

Table 2.32 presents a summary of the products manufactured by the main European manufacturers - Doppelmayr-Garaventa, Leitner and Poma.

Doppelmayr-Garaventa	Leitner	Poma
Funicular Ropeways	Funicular Ropeways	Funiculars
Funifor	Bicable/Tricable Ropeways	Funitel
Funitel	Gondola Ropeways	Aerial Tramways
Bicable/Tricable Ropeways	Aerial Tramways	Reversible Aerial Tramways
Reversible Ropeways	Pulsed Gondola Ropeways	Gondolas
Pulsed Movement Aerial Ropeways	Telemix (combined installation mixing chair lift and gondola lift)	Telemix
Gondolas	Detachable Chairlift	Detachable Chairlift
Combined Installations	Fixed Grip Chairlift	Fixed Grip Chairlift
Detachable Chairlifts	Drag Lifts	Telecord
Fixed Grip Chairlifts		Drag Lifts
Drag Lifts		

2.5.2 Added Value

The cableways sector generates added value both in relation to the manufacture of cableway components and installations and through the operation of cableways.

Cableways Manufacture

The added value of the cableways sector can be deduced somewhat from the information provided by companies about their activities.

For instance, Leitner Ropeways individually produced an annual turnover for the year 2010/11 of €392 million.

As can be seen from Figure 2.10, the annual turnover of the Doppelmayr-Garaventa group increased steadily from 2001/2002 peaking at €680m in the year 2007/2008 before decreasing in 2008/2009 and 2009/2010. This is consistent with the global economic crisis which occurred during these years and to the decrease in demand, particularly from the Alps region.

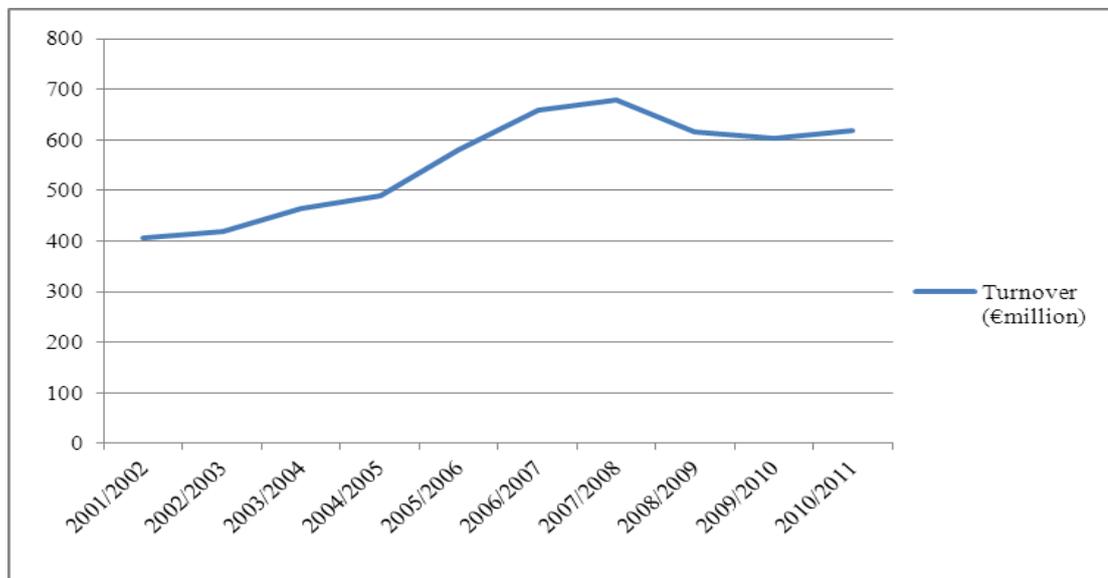


Figure 2.10: Annual Turnover of the Doppelmayr-Garaventa from 2000/2001 to 2010/2011- based on Doppelmayr-Garaventa Press Releases (See <http://www.doppelmayr.com/en/doppelmayr-international/press/press-releases.html?country=all>)

Value Added of Cableways Operation

The cableways industry in Austria employs some 14,000 people across 254 operating companies and in 2007/2008 had an annual turnover of €1.14bn (BMVIT, nd). In addition, investment in cableways construction (€557 million) creates opportunities for construction companies.

For Switzerland, the operation of cableways generates in excess of around €830 million per year¹⁰ and employs over 9,500 people (Remontées Mécaniques Suisses, nd).

The operation of cableways is also central to many countries' tourist industries and is thus responsible for generating value that is not directly linked to its manufacture, construction and operation. Austria's cableway sector has evolved into an essential feature of the country's winter tourism industry which accounts for 4.1% of the country's economy (and is thus comparable with banking and insurance), sustains 250,000 jobs and generates about €1.8 trillion in taxes and social security payments per year (BMVIT, nd). The income multiplier of the cableways operation sector is 6.6, i.e. for every €1,000 in wages, salaries and profits, which are associated with the

¹⁰ CHF 1 billion, converted at April 2012 rate using www.oanda.com

operation of cable cars; a total value added in the national economy is achieved at the height of €6,600 (WKO, nd).

2.5.3 Employment

Table 2.33 provides a summary of the number of employees in the cableways sector. As can be seen, the three main companies employ around 5,000 employees.

Table 2.33: Summary of Number of Employees in Key Companies in the Cableways Industry	
Company	Number of Employees (Year)
<i>Large Companies</i>	
Doppelmayr-Garaventa	2,214 (2010/11) (982 in Austria, 320 in Switzerland)
Leitner	950
Poma	850 (2012) (600 in France)
<i>SMEs</i>	
BMF	230 (2009)
Inauen-Schätti	70
Michálek s.r.o.	65
GMM	30 (2009)
Liftbyggarna	10

2.6 Competitiveness of the European Cableway Sector Industry

2.6.1 Developments in the Industry

Overview

The following key trends have been identified:

- changes in volumes of cableways sold;
- changes in the types of cableways being sold;
- changes in regional demand; and
- changes in the range of products and services offered by the main manufacturers in mature markets.

Changes in Volumes of Cableways Sold

Figure 2.11 presents the numbers of new cableway installations for skiing purposes installed from 2001 to 2010, based on data from Vanat (2011) and Lift-World (nd). The number of cableways other than those for skiing purposes that are installed annually still appears to be relatively small (see Figure 2.3) and conclusions based on data on cableways for skiing are therefore deemed representative for the whole cableways sector.

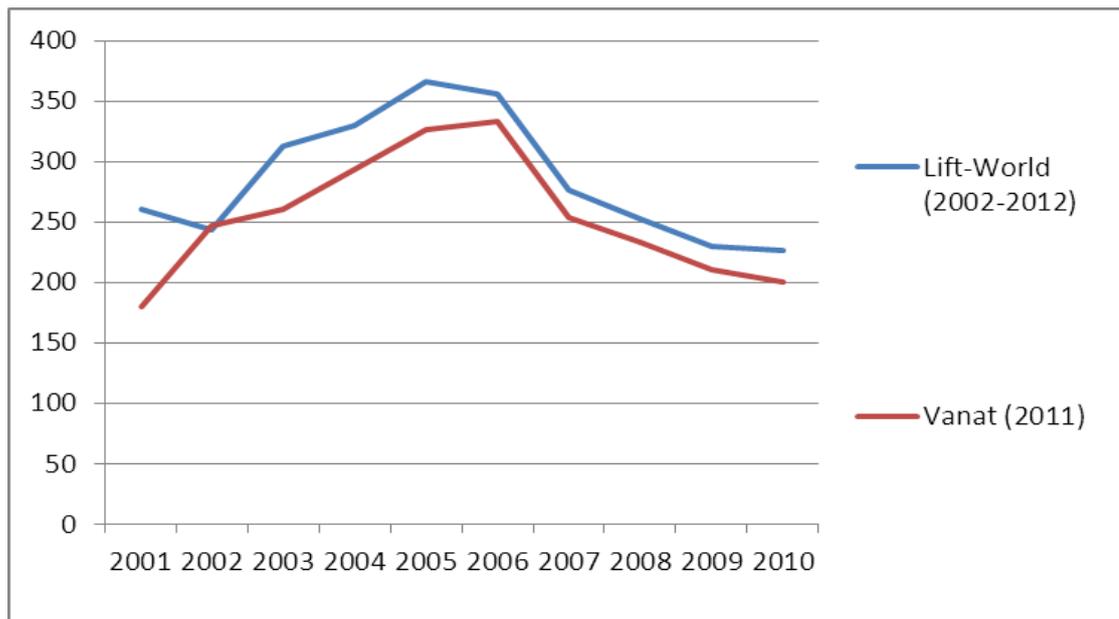


Figure 2.11: New Cableways for Skiing Purposes (2001-2010), reproduced from Vanat (2011) and Lift-World (nd)

Figure 2.11 shows that global deliveries of cableways for skiing purposes underwent a substantial increase after 2001 which culminated in 2006 and have been followed by a sharp drop to a level that is only slightly above that at beginning of the period under review. The drop in new deliveries in 2007 coincides with a sharp decline in skier numbers which occurred in the winter of 2006/2007 due to unfavourable weather conditions. While skier numbers recovered somewhat since then (as shown by the World Overview of Ski Resorts), it is assumed that the recent economic crisis has negatively impacted on investment in new cableways, thus sustaining a trend which commenced prior to the economic crisis.

In the Alpine region of Europe, ski tourism peaked in the 2007/2008 season at 1.2 million tourists having expanded on average by 5% per annum since 2000/2001 (Savills, 2011). The industry now remains at some 26% below this peak with 910,900 tourists in the 2010/2011 season (Savills, 2011). The impact of the economic recession was felt in the ski industry during the 2008/2009 winter season when the industry contracted more than 13% compared to the previous year (Savills, 2011). France was the worst hit with a 16% decrease in the number of skiers; Switzerland saw a decrease of 15% and Austria 8%. The decrease in visitor numbers since the 2007/2008 season is a result of recessionary conditions as well as other factors such as snow conditions and the timing of key holidays such as Easter. Looking at the situation more closely; France has seen its market share decrease from 38% in 2007/2008 to 33% in 2010/2011 while Austria has seen its market share increase from 19% in 2006/2007 to 27% in 2010/2011 (Savills, 2011). France, which is considered an expensive ski destination, is seeing reduced visitor numbers while Austria, which is considered better value for money, has increased its market share (Pistehors, 1992-2011). Austria was significantly less affected by the economic recession and operators continue to invest more than 50% of revenues each year (Vanat, 2011).

Other factors influencing demand for cableways include weather conditions year on year and whether enough income is generated during the winter season to purchase new cableways for the following season. The trend toward purchasing higher performance and higher capacity cableways means fewer cableways need to be installed. This does not necessarily affect cableways manufacturers as large, high performance cableways generate more income than small drag lifts. This may help to explain why the Doppelmayr-Garaventa turnover does not appear to be significantly affected by the decrease in the number of installations. Furthermore, as noted later in this Section, the number of installations in other regions such as Asia is increasing and demand appears to be moving away from the Alps to other areas of the world. This increase is not occurring currently at a rate fast enough to make up for the decreases experienced in the Alps. Another factor may be the price of new cableways. In France the average price of cableways increased 50% in the eight years to 2010 (58% for a detachable chairlift). This is double the increase in ski pass prices therefore it is more difficult for French resorts to find the funds to invest.

Changes in Types of Cableways

Figure 2.12 shows the types of cableway installations for skiing installed between 2001 and 2010. Fixed and detachable chairlifts continue to be the most popular type of cableways for skiing and together they continue to account for 50% or more of cableways installed in ski resorts each year. Overall, detachable chairlifts are more popular than fixed-grip chairlifts even though their proportion appears to vary widely from year to year and no particular pattern can be identified. Of particular note is the sustained increase in popularity of gondolas which contrasts with the more volatile demand for chair lifts and surface lifts (see Figure 2.13).

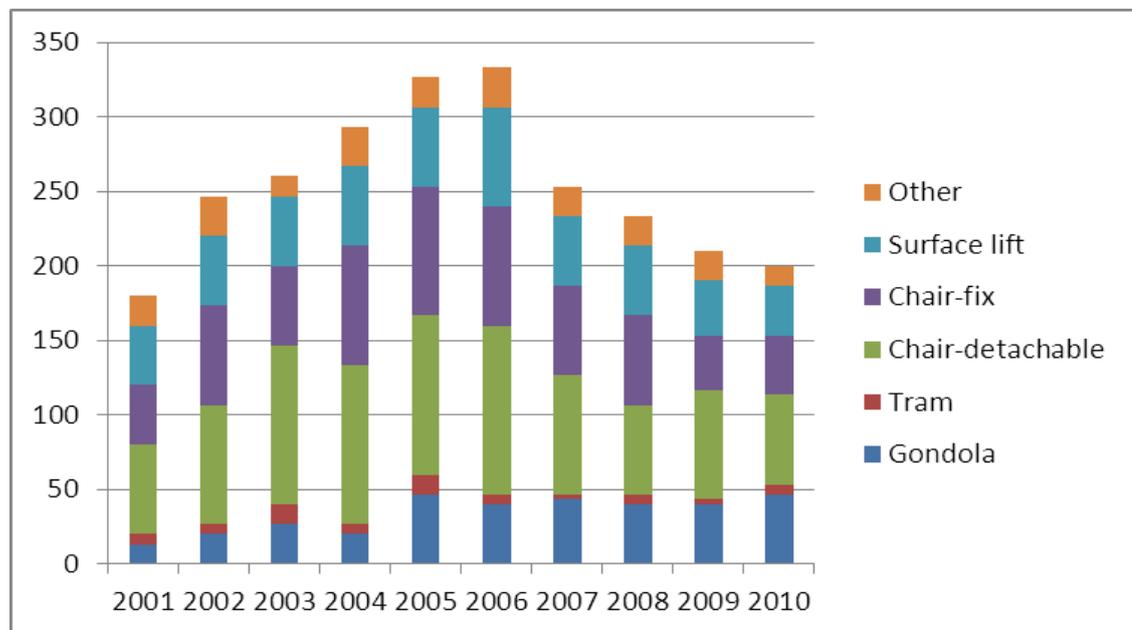


Figure 2.12: New Cableways for Skiing by Type (2001-2010), reproduced from Vanat (2011)

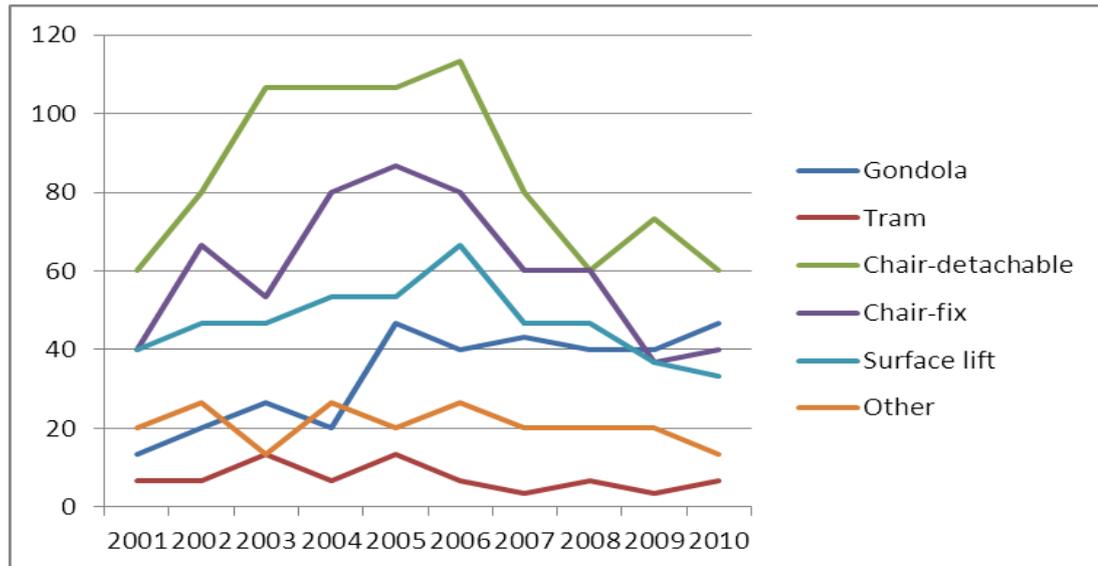


Figure 2.13: New Cableways for Skiing Purposes by Type (2001-2010), based on Vanat (2011)

Changes in Regional Demand

In terms of volume, the Alps continue to be the largest customer for cableways. However, the market dominance of the Alps is decreasing; it represented only 48% of the market for new cableways in 2010 which is a decrease of 18% from 2001. The decrease noted in the Alps has had a significant effect upon the total global demand for cableways. While demand for new cableways installations is decreasing in traditional areas like the Alps, new and emerging markets such as the market in Eastern Europe are experiencing an increase in demand. Importantly however, this demand is not currently increasing at a pace quick enough to fill the deficit left by the shrinking Alps market.

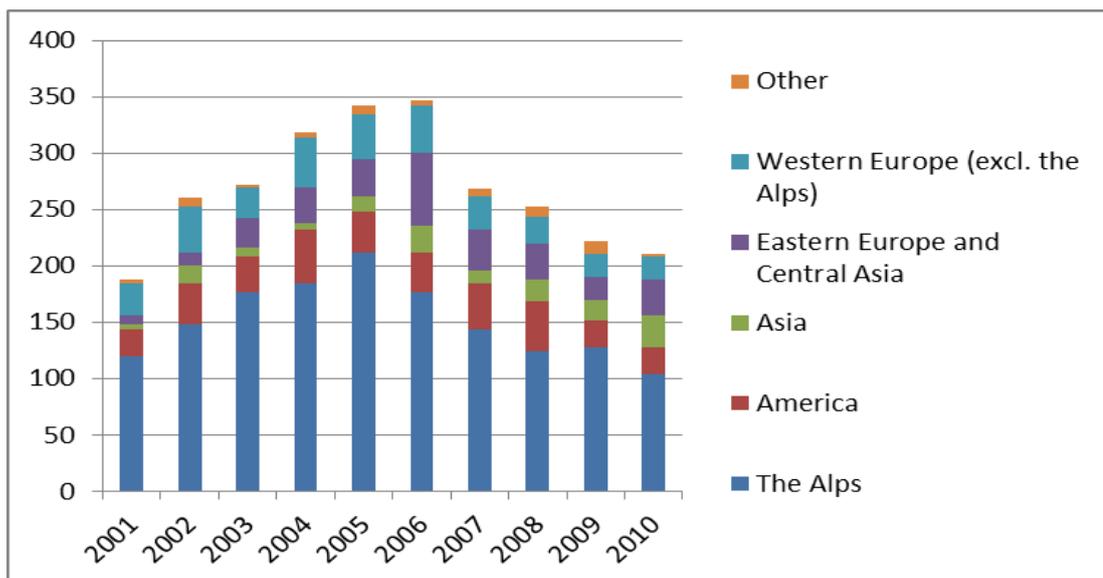


Figure 2.14: New Cableways for Skiing by Region (2001-2010), reproduced from Vanat (2011b)

Changes in Portfolio of Manufacturers

As discussed above, the core or traditional markets of Western Europe, particularly France, Austria, Switzerland and Italy (as well as North America and Canada) are maturing and, as a result, emphasis is now being placed on the maintenance (revision, modification) and upgrading of existing installations in these areas. This comes at a detriment to the installation of new cableways and the development of new resorts. For many cableways manufacturers, maintenance activities now account for a significant part of business. Operators now attempt continuous innovation on cableways installations rather than simply conducting basic maintenance activities which allows installations to become out of date and obsolete (Mayer, 2009). According to data from the cableway manufacturer Poma maintenance of installations now equates to approximately 1/3 of total business (Le Moci 2010). It is estimated that the annual maintenance cost of a gondola is 1.5% of the cost of purchasing the installation (Commission de la Sécurité des Consommateurs, 2009). As a result manufacturers are turning their attention toward new and emerging markets such as the new EU Member States in Eastern Europe (EC, 2010).

According to Remontées Mécaniques Suisses (2010), Switzerland saw an investment of around €645 million in cableways in 2008 and 2009 (combined). This sum was mostly invested the replacement of old installations by technologically innovative installations which deliver higher performance and are more comfortable. On the other hand, investment in new installations was below that of previous years. Also, Swiss cableways operators have increased investment in additional services such as restaurants and hotels in an attempt to offset the weather dependence of the sector.

2.6.2 Products and Product Pricing

The unique nature of cableways installations, the varying types of cableways available and the competitive nature of the industry, means pricing is difficult to discuss and costs difficult to estimate. Furthermore, as cableways are made according to the specific requirements of each situation, comparing the prices of different manufacturers is also difficult. Table 2.34 presents examples of prices of different cableways installations; several examples are provided for each category in attempt to illustrate the range of prices possible for each type of installation.

There are indications that the Directive may have impacted product prices but the extent of this development is not clear. The Slovenian Ministry of Infrastructure and Spatial Planning stated that cableways became slightly more expensive following the Directive but this is not only because of the Directive but also due to a reduction in the number of manufacturers. On the other hand, according to an SME cableway manufacturer, product prices increased substantially because of the Directive.

Table 2.34: Examples of Prices within the Cableways Industry								
Type and Name of Lift	Company	Year	Length (m)	Vertical Rise (m)	Speed (metres per second)	Hangers/Chairs / Cabins	Capacity (people per hour)	Cost
Drag Lift - Telecord								
<i>Pré Pinet, Alpes du Nord, France</i>	GMM	2004	212	5			1,500	€40,000
<i>Snow Park, Pyrenees, France</i>	Sunkid	2008	160	30			800	€55,000
<i>Palatin, Alpes du Sud, France</i>	Poma	2005	93	5			1,150	€60,000
<i>Gaudissart, Alpes du Sud, France</i>	Poma	2004	83	9			1,500	€70,000
Fixed Drag Lift								
<i>Isaby, Pyrenees, France</i>	Doppelmayr	2008	398	97	2.5		900	€200,000
<i>Le Tétrás, Alpes du Nord, France</i>	Doppelmayr	2009	444	167	2.8		858	€354,000
<i>Cimes, Massif Central, France</i>	Leitner	2008	677	178	3.2	111	900	€500,000
Detachable Drag Lift								
<i>Fédérale 1</i>	GMM	2007	534	171	3.2	88	900	€600,000
<i>Ferrand Nord</i>	GMM	2005	783	173	3.5		900	€888,000
Fixed Grip Chair Lift								
<i>Freychet, Guzet, Pyrenees, France</i>	Poma	2003	1,143	472	2.3	132 chairs for 3 people	1,450	€1.3 million
<i>Les Sources, Savoie, France</i>	Poma	2008	898	393	2.5	175 chairs for 4 people	2,400	€2.5 million
<i>Plat d'Adet, Saint Lary, Pyrenees, France</i>	Poma	2006	700	190	2.2	96 chairs for 6 people	2,400	€2.8 million
Detachable Chair Lift								
<i>Du Golf, Meribel, France</i>	Poma	2009	1,524	302	5	69 chairs for 4 people	1,500	€2.6 million

Table 2.34: Examples of Prices within the Cableways Industry								
Type and Name of Lift	Company	Year	Length (m)	Vertical Rise (m)	Speed (metres per second)	Hangers/Chairs / Cabins	Capacity (people per hour)	Cost
<i>Caron, Val Thorens, France</i>	Doppelmayr	2007	1,493	222	6	54 chairs for 8 people	2,400	€5.3 million
<i>Tufs, Savoie, France</i>	Doppelmayr	2008	1,621	532	5.25	72 chairs for 6 people	2,700	€5.5 million
<i>Chariande Express, Samoens, France</i>	Poma	2009	2,296	584	5.5	120 chairs for 6 people	3,000	€7.8 million
Pulsed Movement (Fixed Grip) Gondola								
<i>Le Cabriolet, Les Arcs, Savoie, France</i>	Poma	2003	237	83	5	4 cabins for 16 people	800	€2.2 million
<i>Télébuffette, La Plagne, Savoie, France</i>	Leitner	2008	290	63	6	4 cabins for 10 people	550	€3 million
Detachable Gondola								
<i>Celliers, Savoie, France</i>	Poma	2008	700	305	5	10 cabins for 8 people	700	€4.2 million
<i>La Croix, Alpes du Nord, France</i>	Poma	2009	2,000	650	6	70 cabins for 10 people	2,700	€10 million
<i>Rendlbahn, St Anton, Austria (bicable)</i>	Leitner	2009	2,410	721	6	44 cabins for 8 people	1,300	€13 million
<i>Kitzbühel, Austria</i>	Doppelmayr-Garaventa	2004	3,642	137	7	19 cabins for 24 people	1,600	€13 million
<i>Vignec, Pyrenees, France</i>	Poma	2009	2,800	850	6	60 cabins for 10 people	1,800	€14 million
<i>Emirates Air Line, London, UK (in construction) (monocable)</i>	Doppelmayr-Garaventa	2012	1,100	50 (Estimated)	6	34 cabins for 10 people	2,500	€74 million (estimated)
Aerial Tramway								
<i>Wings of Tatev, Armenia</i>	Doppelmayr-Garaventa	2010	5,700	12	10	2 cabins for 25 people	120	€13.7 million
<i>Vanoise Express, France</i>	Poma	2003	1,830	70	12.5	2 cabins for 200 people	2,000	€15 million

Table 2.34: Examples of Prices within the Cableways Industry								
Type and Name of Lift	Company	Year	Length (m)	Vertical Rise (m)	Speed (metres per second)	Hangers/Chairs / Cabins	Capacity (people per hour)	Cost
<i>Buga, Koblenz, Germany</i>	Doppelmayr-Garaventa	2010	949	112	4.5	18 cabins for 35 people	3,800	€15 million
<i>Roosevelt Island, New York, USA</i>	Leitner-Poma	2010	960	70	8.0	2 cabins for 125 people	1,500	€19 million
Funicular								
<i>Frachey-Alpe Ciarceri, Champoluc-Frachey, Italy</i>	Leitner	2009	797	364	7.0	2 cabins for 110 people	1,500	€12.3 million
<i>Cairngorms, UK</i>	Doppelmayr	2001	1,950	452	10	2 cabins for 120 people	1,200	€23.9 million
Funitel								
<i>Le Bouquetin, Val Thorens, France</i>	Poma	2003	880	266	8.0	6 cabins for 33 people	2,000	€4.5 million
<i>Thorens, Val Thorens, France</i>	BMF	2011	752	190	8.0	4 cabins for 40 people	1,500	€6 million
<i>Grande Rochette, La Plagne, France</i>	Doppelmayr	2000	1,669	510	7.2	21 cabins for 26 people	3,500	€11 million
<i>Grand Fond, Val Thorens, France</i>	Poma	2001	1,985	541	7.0	20 cabins for 33 people	3,000	€12.8 million
<i>Super-Besse, France</i>	Poma	2008	2,024	478	6.0	34 cabins for 20 people	3,000	€13.8 million (without tax)
<i>St Anton am Arlberg, Austria</i>	Doppelmayr-Garaventa	2006	2,542	766	6.0	28 cabins for 24 people	2,200	€22 million

From Table 2.34 it is clear that a cableway installation can cost as little as €40,000 or as much €72 million. Smaller, uncomplicated cableways (such as drag lifts) which do not require buildings or numerous pylons are significantly cheaper than larger cableways (particularly gondolas and funiculars) which are more complex by nature. However, with the reduced price tag also come reduced travelling speeds and lower capacity levels. Surface lifts are also typically employed over shorter distances against a smaller incline. It is also evident that fixed grip technology (where the vehicle transporting the passenger moves continuously and all vehicles are required to stop at the same time) is cheaper than detachable technology (where the vehicle detaches from the cable to allow easier loading and unloading). Although fixed grip cableways can achieve greater speeds they typically experience longer waiting times as a result of reduced capacity levels (The Gondola Project, 2012). Furthermore, detachable technology permits the introduction of mid-stations and corners on the cable route (The Gondola Project, 2012). Across all product categories it appears that price is influenced by the length of the cableway installation and the number of vehicles on the cable (which in turn impacts upon the capacity of the cableway). Table 2.35 presents data from a recent French report prepared by CERTU, STRMTG and CETE¹¹, regarding the use of cableways as urban public transport systems. The Table presents estimates of the costs involved in the installation of monocable and tricable cableways in an urban environment.

System	Monocable	Tricable
Drive Station (including electromechanical equipment and structural building, excluding architectural design and special measures).	€2.5 - €3 million	€4 - €5 million
Intermediate Station	€1.2 - €1.5 million	
Return Station	€1 million	€3 - €4 million
8-10 seater cabin	€30,000	-
35 seater cabin	-	€300,000
100 seater cabin	-	€1 million
Pylon	€100,000	€500,000
<i>Source: CERTU, STRMTG & CETE (2011)</i>		

As is further elaborated in Table 2.35, prices of cableways vary depending on the specifications of the cableway and the type of cableway selected. It is also important to note that the cost of the cableway also includes the cost of, for example, stations and buildings, civil engineering and construction work. Examples are provided in Box 2.1 and Box 2.2 (overleaf) to provide further detail into the costs associated with two recent cableways installations.

¹¹ CERTU = Centre d'Etudes sur les Réseaux, les Transports, L'Urbanisme et les Constructions (Research Centre for Networks, Transport, Urbanism and Constructions). STRMTG = Service Technique des Remontées Mécaniques et Transport Guidés (Technical Service for Cableways and Guided Transport). CETE = Centre d'Etudes Techniques du Sud-Ouest (Centre of Technical Equipment Studies in South West France)

Box 2.1: Costs Involved in The Installation of the Cairngorm Funicular

Cairngorm Funicular Railway, Scotland (UK)

In 2001 a funicular was installed in the Cairngorms, UK to replace a chairlift installation. The funicular is in operation throughout the year; transporting skiers and snowboarders in winter, as well as tourists during the summer months (SAC, 2012). Options considered when assessing how (and if) to replace the existing chairlift and their associated prices in 1992 are shown below (Audit Scotland, 2009).

- Do Nothing (but improve the buildings to a standard similar to the other options): £4.4m
- Replacement Chairlift: £9.7m
- Mono-Cable Gondola: £11.6m
- Dual-Cable Gondola: £13.0m
- Funicular: £12.2m

The funicular was constructed by Doppelmayr (prior to its merger with Garaventa) and the initial budget for the funicular was £14.8m. However the final cost was £19.5m of which:

- civil engineering and buildings cost: £12.9m;
- train and systems cost: £3.5m;
- professional fees and miscellaneous cost: £2.5m; and
- electricity cost: £0.6m.

Importantly, it is estimated that one third of the cost of the installation was spent on environmental impact mitigation. For example, due to the potential environmental damage caused by the funicular some tower foundations were dug by hand to avoid damage to peat bogs which are home to rare plants. Also, rocks with rare lichens and mosses were photographed, numbered, stored and returned to the same site they were removed from upon conclusion of the installation (Lift- World, 2008).

Box 2.2: Estimated Breakdown of Costs Involved in the Installation of a Monocable Detachable Gondola

Emirates Air Line, London (UK)

Doppelmayr-Garaventa was recently involved in the construction of a detachable monocable gondola across the river Thames in London, UK. The gondola measures 1,100 metres and has 34 cabins, each with the capacity to transport ten people at a time. It is estimated that the gondola will have a capacity of 2,500 people per hour, per direction (wharf.co.uk, 2011). Current estimates claim that the total cost of the installation was approximately £60m (€74 million) (of which £45 million (€56 million) was spent on building the installation) making it the world's most expensive cableway (BBC, 2011).

According to the website 'The Gondola Project' (2011) a recent detachable monocable gondola (similar to the Thames gondola) measuring 2,400 metres cost €16.5 million. It has been estimated that the cost of construction can be sub-divided as follows (The Gondola Project, 2011):

- €3.8 million: station machinery;
- €3.2 million: return with cabins storage, with controls;
- €1.8 million: buildings (a basic design);
- €4.2 million: line and towers (an estimated 18);
- €1.8 million: gondolas; and
- €1.7 million: construction (approximately 140 working days).

Price Changes

According to data from Domaines Skiabes de France (2011) it is estimated that the cost of cableways installations has increased during the decade from 2000 to 2011. For example, based on the average cost of the capacity of an installation, detachable chairlifts have seen an 83% increase in price; from €3,100,000 in 2000 to €5,750,000 in 2011 (Domaines Skiabes de France, 2011). Fixed grip chairlifts have also experienced price increases and the average cost has risen from €1,850,000 in 2000 to €2,350,000 in 2011 (an increase of 27%) (Domaines Skiabes de France, 2011).

Maintenance Costs

As well as the cost of purchasing and installing the cableway, operators must also consider the cost of maintenance of the cableway following its installation as this is not covered by manufacturers. It is estimated that the cost of annual maintenance of a cableway installation is 1.5% of the initial cost of the cableway (Commission de la Sécurité des Consommateurs, 2009). By means of example, surface lifts are subject to an annual visit and a detailed inspection when it reaches 30 years old; it is estimated that the detailed inspection can cost between €15,000 and €50,000 (Domaines Skiabes de France, 2011b). Furthermore, chairlifts are subject to an annual inspection as well as the inspection of certain components every few years; detachable grips cost €350,000 to inspect every five years while cables are inspected every three years (Domaines Skiabes de France, 2011b). Chairlifts are also subject to a detailed inspection at 15 years, 25 years and every five years following which costs approximately €200,000 (Domaines Skiabes de France, 2011b)

2.6.3 Research and Innovation Intensity and Innovation Performance

Historically, cable cars have been one of the main driving forces behind Alpine tourism. However, with demand for winter sport stagnating, it has been suggested that cable car innovations implemented by tourism entrepreneurs could serve as a means of differentiating the product to meet new consumer preferences (Mayer, 2009).

Product innovation is a key aspect of the research and development (R&D) undertaken by cableways manufacturers, even though due to the bespoke nature of every installation, R&D has to be carried out for every installation, even where these installations are based on similar technical solutions. Thus, it can be expected that (at least some) cableway manufacturers invest significant resources into R&D activities. By way of example, following the acquisition of Poma by the Seeber Group in 2001, Leitner and Poma have conducted joint R&D operations, and it has been estimated that Poma invests approximately 2% of its annual turnover in R&D (Le Moci, 2010).

Innovations within the cable car industry have recently focused on increasing the speed, capacity, comfort and safety of installations. Some of this innovation is driven by customers (such as ski lift operators) who, in order to remain competitive want to transport more people, over longer distances and at faster speeds.

- In terms of distance, in October 2010, the world's longest aerial tramway built in one section, which covers a distance of 5.7km, was constructed by Doppelmayr-Garaventa in Tatev, Armenia (Tourism Armenia, nd).
- In terms of capacity, higher capacity installations have been developed such as 8 seater chairlifts and 'combined' installations which permit chairlifts and gondola cabins within one installation. The combined installation in Penken, Mayrhofen (manufactured by Doppelmayr-Garaventa in 2011), is one example of this innovation which combines an eight seater chairlift with a ten person gondola.
- In terms of comfort, innovative solutions include the development of features such as heated seats and 'weather protection canopies' to ensure maximum comfort for users. In early 2012, Leitner installed an eight seater chairlift in the High Tatras (Slovakia) and Białka Tatrzańska (Poland) which included heated seats, comfortable seating and a blue 'weather protection' bubble (Leitner AG, 2012b).
- In terms of environmentally friendly solutions, the Swiss company BMF has installed a solar powered surface lift in Tenna, Switzerland, which also produces excess electricity which is then sold (ISR, 2012).

There are also 'basic innovations' such as cable cars being increasingly used as a means of transport in urban environments. Manufacturers are branching out of traditional markets and are looking at novel applications of cableway technology, principally through the use of cableways in urban locations for public transportation requirements. Cableways in the urban environment are able to overcome obstacles and other problematic features in the urban landscape such as railway lines and rivers that other transport systems would be unable to achieve. Furthermore, cableways are also able to connect areas that are, for topographical reasons, difficult to access. They offer an environmentally friendly transport solution with low energy consumption, low greenhouse gas emissions and little noise pollution (O'Connor and Dale, 2009).

O'Connor and Dale (2011) believe the urban public transport (UPT) market will become the dominant market for the cableway industry in the future. Today there are already UPT systems operating in the United States, Algeria, Spain, China, and Brazil with 'high profile' systems proposed/planned in both Britain and Canada. It is estimated that there are 57 systems currently proposed or under construction in South America alone (excluding Brazil) as cities are beginning to realise the potential for urban gondolas as part of a solution to their mobility needs. For this to happen, 'alpine style' systems cannot be simply transported into urban settings; rather, a significant shift in thinking will be required to better market and adapt cable transport technology for cities, eventually fostering its use as a mainstream transportation option (O'Connor and Dale, 2011).

2.6.4 Summary of Competitive Situation of the European Industry

Table 2.36 provides a summary of the strengths, weaknesses, opportunities and threats for the European industry.

Table 2.36: SWOT Analysis of the European Cableways Industry	
Strengths	Opportunities
<ul style="list-style-type: none"> • Two main players accounting for 90% of the market and global leaders are EU companies • Dominance of large companies allows for increased profitability and benefits from economies of scale • Ideal historical location near to Alps, which has made the European industry leaders in innovation and development of cableways and resulted in high technical know-how and development of knowledge clusters around the area • Good links and integration with companies manufacturing cable car parts • Significant investment in R& D and continued innovation • High reputation of European harmonised standards globally 	<ul style="list-style-type: none"> • Demand for gondolas is increasing • The capacity per cable car is rising strongly • Trend towards more comfort, less waiting time and faster cable cars • Increasing demand for cable cars in urban transportation • Opportunities in growing markets in Eastern Europe and Asia
Weaknesses	Threats
<ul style="list-style-type: none"> • Total number of cableways is declining • Large number of cableways for skiing purposes installed in New Member States may be second-hand lifts from Alpine countries • Very long lifetimes of installations (up to 30 to 40 years)¹² limiting renewal demand 	<ul style="list-style-type: none"> • Long-term downward trend in number of companies may impact on future innovation potential within the sector • New manufacturers emerging in local emerging markets (e.g. China, India, etc.) negating the need for imports of cable cars from EU companies • Impact of climate on snow availability and demand for cableways

¹² Remontées Mécaniques Suisses (2003)

3. IMPACT OF THE CABLEWAYS DIRECTIVE ON THE CABLEWAYS SECTOR

3.1 Overview

This section summarises the main impacts of the Directive, based on the information obtained from literature review and stakeholder consultation as summarised in Section 2. It focuses on two main impacts: impacts relative to the aims of the Directive and impacts on the functioning and on the structure of the cableways sector.

3.2 Impacts in Relation to the Aims of the Directive

The Cableways Directive (2000/9/EC) was established with the aim of ensuring the safety and free movement of cableway components by harmonising passenger safety and protection requirements. Its two fundamental objectives are passenger safety and the creation of a single market (EC, 2006).

In terms of the creation of a single market, it is clear that the Directive has harmonised national legislation on design, manufacture and conformity assessment of subsystems and safety components. This is supported by the fact that the transposition of the Directive at national level did not, on the whole, run into any particular problems, and it was not necessary to start infringement proceedings against any Member State (EC, 2011).

Publicly available data are generally not sufficient for a comprehensive and robust assessment of the impacts of the Directive on passenger safety. Even where accident/incident data exist, they either highlight individual accident cases or provide an insufficient basis for drawing any conclusions. This is because a robust assessment would require a detailed examination of the causes of each incident (technical malfunction, user behaviour etc.) and of the installation involved (approved in accordance with Directive 2000/9/EC or predating the Directive) and of the total number of installations in use or of the number of passengers carried. For instance, the numbers of serious accidents in France associated with cableways are available for 2002 – 2007 and presented in Table 3.1.

Please note that the reason why accident data are presented in this report for certain countries only is that we have not been able to locate data for some other countries.

	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10	2010-11
No. of passengers (million)	729	737	702	677	532	692	761	666	665
No. of accidents resulting in serious injury	15	16	15	18	13	20	14	23	19

	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10	2010-11
No. of seriously injured people	n/a	16	15	18	14	19	14	23	18
No. of fatalities	n/a	0	0	0	0	1	0	0	1

Sources: Domaines Skiabiles de France (nd) ; STRMTG (2012)

As can be seen from the data on France:

- statistics are not available prior to the Directive to allow for a robust comparison covering a longer time-series; and
- as noted in the report (Domaines Skiabiles de France, nd), accidents are more often associated with passenger behaviour than equipment or installation failure.

Additional information on accidents was provided by consultation carried out for this study. This information indicates that:

- Hungary has not experienced any incidents, accidents or serious incidents on cableways subject to the Cableways Directive since July 2011;
- Lithuania has not had any cableway incidents/accidents over the past decade;
- Luxembourg only has one cableway which was built in accordance with Directive 2000/9/EC in 2003 and no accidents on this installation are known to the authorities. This installation replaced a cableway from the 1950s after a serious accident;
- over the past decade, Poland does not appear to have experienced any fatalities or serious accidents resulting from the technical failure or inappropriate maintenance of cableways;
- Portugal has experienced no serious accidents or incidents since 2004;
- Romania has not experienced any accidents on cableway installations designed to carry persons over the past 10 years but has had three incidents on fixed grip chairlifts which resulted from a technical malfunction;
- information on incidents/accidents in Slovakia since 2003 suggests that these may primarily occur due to passenger behaviour; and
- unofficial data for Spain suggest that between 1 November 2009 and 31 October 2010 there were eight incidents involving cableways in Spain (seven incidents involved chairlifts and one involved a draglift). As a result of these incidents there were 16 minor injuries, 1 serious injury but no fatalities. Statistics for the following year (1 November 2010 – 31 October 2011) are similar with nine incidents occurring during this period. Of these incidents eight involved chairlifts

and one involved a draglift. 27 minor injuries were sustained as a result of the nine incidents; importantly however there were no serious injuries or fatalities.

Discussions with industry representatives have not shown any correlation between the introduction of the Directive and changes in passenger safety. A major cableway manufacturer active in the Alpine region noted that while safety (from his company's perspective) has not really been impacted by the Directive for better or worse, it is possible that, in some Member States, the Directive has resulted in an improvement to pre-existing regulation.

Discussions and information provided by national authorities and notified bodies show that the vast majority of them do not believe that there is a major problem with non-compliant or dangerous products on the market in the cableways sector (see Table 3.2).

	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	2	9%	0	0%
No	20	91%	4	100%
TOTAL	22	100%	4	100%

However individual cases, such as the Kaprun disaster in Austria in 2000, in which the carriage of a funicular caught fire within a tunnel and caused the deaths of 155 people (Fireworld.at, nd), serve to emphasise the importance of having high levels of safety within the industry.

Comprehensive data on cableway incident/accident data in non-European countries are also sparse. For example, the National Ski Areas Association (NSAA) collects data on cableway related fatalities in the United States; however, data on non-fatal incidents are not published by the NSAA. According to NSAA (2012), the US has not experienced a fatality resulting from a chairlift malfunction since 1993, although a fatality occurred in December 2011 after a child fell off a chairlift. In addition, news reports make it clear that there have been incidents that resulted in non-fatal injuries. For example, in 2010 six people were hurt after a chairlift derailed in Maine.¹³

Taken together, it can be deduced that **the Cableways Directive has an important role to play in terms of ensuring the safety of cableway passengers.** In particular, the adoption of the Directive has contributed especially to increasing the level of safety of cableway installations in Member States which did not have previous history and tradition in this area or where regulation may have been comparatively less stringent.

¹³ See <http://www.bbc.co.uk/news/world-us-canada-12087306>

3.3 Impacts in Relation to the Cableways Sector

3.3.1 Impacts of Standardisation and Product Variety

A key impact of the Cableways Directive has been in the area of product standardisation. The adoption of the Directive has driven the standardisation process at the European level. Between 2000 and 2005, the CEN Technical Committee responsible for cableway installations developed harmonised standards relevant to cableway installations designed to carry persons. There are currently twenty-three harmonised standards in the field of cableway installations and references to these standards are published in the Official Journal of the European Union.

Several consultees highlighted that, prior to the Directive, products were based on different requirements in different countries; however, since the introduction of the Directive, the market is now supplied with standardised products. As noted in EC (2011), harmonising the conformity assessment procedures of safety components and subsystems and promoting the establishment of harmonised standards at the European level has made economies of scale possible.

While this product standardisation has its advantages, it may have impacted manufacturers of niche and/or customised products. A cableways manufacturer noted that there are now a smaller number of products with much less product variety and this can be directly attributable to the Directive. In this regard, it has also been observed that manufacturers of customised products which are technically similar to those falling under the Cableways Directive appear keen to distance their products from the scope of the Cableways Directive (and into other legislation such as the Machinery Directive or national legislation relating to amusement attractions, for instance). In addition, a cableway manufacturer noted that that the relevant standards do not sufficiently account for specificities of small ski lifts (so-called handle tow and rope-tow lifts).

In addition, the International Federation of Ski Lift Operators (FIANET) stated that the current market situation is such that it is virtually impossible to mix and match components from various manufacturers and each installation is therefore sourced from a single manufacturer. It is further accused that the Directive has strengthened the bargaining power of cableway manufacturers at the expense of operators, and for example, restricted the choice available to operators with regard to replacement parts.

Overall, it may be deduced that **product standardisation has also created opportunities for increased economies of scale** which have been of benefit to the EU cableways sector but **product variety may have reduced as a result of the Directive.**

3.3.2 Impact on SMEs, Costs and Innovation

As noted in Section 2, in general, many SME cableway manufacturers focus on the installation of less complicated and smaller cableways in the form of drag lifts and basic chairlifts. Based on Table 2.22, it can be assumed that of the 32 SME cableway

manufacturers, approximately two-thirds may be producing drag lifts and basic chairlifts.

With regard to SME suppliers of subsystems and safety components, a manufacturer of electronic components suggested that companies other than the large cableway manufacturers tend to be concentrated in niche and/or customised product areas.

Linked to the above, a small cableways manufacturer highlighted the cost of obtaining the necessary approvals required for product innovation. This may act as a deterrent to product innovations.

Costs of complying with the Directive were however also accrued by large manufacturers. According to a Doppelmayr-Garaventa publication, in order to comply with Directive 2000/9/EC, preparation of the documentation for the assessment of conformity for a grip (this is assumed to refer to a component which attaches a cable car to a cable) took 300 hours; while preparing the necessary documentation for a new sheave assembly (this is assumed to refer to the part of the cableway consisting of multiple sheaves suspending and guiding the rope and the cable car in a certain direction) took 18,000 hours over an 18 month period (Doppelmayr-Garaventa, 2005). Additional burden arising from the Directive was also identified by a component manufacturer.

One manufacturer even alleged that some cableways may simply not have been built due to the Directive. A similar point was also made by the Administration of Occupational Health and Safety in Iceland which stated that a cableway was built in Iceland recently but because of the Cableways Directive it was only designated for transport of goods, rather than people, which meant that it could be included under the Machinery Directive rather than under the Cableways Directive.

FIANET pointed to an increase in prices paid for cableways by operators. It was stated that the cost increase attributable to the Directive (i.e. excluding inflation) can be estimated at 20%. It was further stated that this occurred against the backdrop of weak revenues generated by ski resorts, leading to some operators putting off investment.

3.3.3 Impacts on International Trade

The adoption of the Directive has led to an improvement in the positioning and visibility of the EU cableway sector internationally (EC, 2011). European harmonised standards appear to be accepted in many non-European export markets (with the exception of North America) and, as such, European manufacturers have a competitive advantage with regard to exports to third countries. With regard to imports from non-EU countries, a small rope manufacturer noted that the Directive helped them in relation to their competitors from the Far East who have not been able to undergo a conformity assessment. Overall, the Cableways Directive could be said to have had positive impacts in terms of international trade.

3.3.4 Impacts on the Structure of the Sector

There have been a number of changes in the structure of the cableways sector, in particular, the reduction in the number of companies active in the sector and the emergence of two main players that dominate the market and have become increasingly integrated into their upstream supply chains. Information in Section 2 shows that around 50 European companies¹⁴ may have been subject to mergers and acquisitions over the past 40 years or so while over 20 European companies exited the market. It is not possible to determine what proportion of these were SMEs but it can be reasonably assumed (and indeed there are some indications to that effect) that many of these companies were SMEs. Presently, there appear to be around 35 cableway manufacturers in Europe (this includes Norway, Switzerland and Turkey). The vast majority of which appear to be SMEs and their combined market share appears to be around 10%.

While these developments at least partially coincided with the entry into force of the Cableways Directive in 2004 and some stakeholders appear to believe that the Directive contributed to these developments, it is important to note that the onset of these developments predates the Directive and a number of key bankruptcies, mergers and acquisitions occurred prior to 2004, including the acquisition of Poma by the Seeber Group which also owns Leitner (2000) and the merger of Doppelmayr with Garaventa (2002). As indicated in Section 2, the process of consolidation of the cableways sector in terms of a reduced number of manufacturers was already under way when the Directive came into force.

However, literature review and interviews with various stakeholders in the cableways sector indicates that some stakeholders believe that the Directive may have contributed to these developments, for instance:

- an SME active in the cableways sector suggested that it was easier for larger companies to absorb the costs of complying with the Directive. Due to these costs, some companies sold up, went out of business or decided to focus on non-cableway related activities. Overall, there has been a reduction in the number of companies in the cableways sector;
- in Sweden, cableway operators did not have the resources to undertake risk analysis and had problems doing this on their own; this put large companies at an advantage as they were able to offer assistance; and
- the alignment of the Swiss legislation to the EU Cableways legislation has reportedly introduced more stringent safety requirements. It is possible that this was one of several factors that may have (to an unknown degree¹⁵) contributed to stagnation in the demand for small cableways and contributed to the sale of the Swiss company Niederberger to Inauen-Schätti (another Swiss producer) in 2005 (Bergbahnen, nd).

¹⁴ Please note that this includes Swiss companies.

¹⁵ Consultation further suggested that Swiss companies started adjusting to the new requirements several years before their entry into force and that the permit process for operators of small cableways became more demanding and more complex which may also have had some impact on the market.

In addition to a reduction in the number of companies in the sector, large cableway manufacturers appear to have branched out into their upstream supply chains, although, this process was already under way before the Directive came into force (for example, as described in Section 2, Doppelmayr acquired cabin manufacturer CWA in 2002 and Poma acquired Semer in 1991). Box 3.1 describes the process as it occurred for Italian suppliers of electronic parts.

Box 3.1: Case Study – Electronics Manufacture and Cableways Manufacturers

Consultation suggests that in the 1980s there were three or four manufacturers of electronic/control equipment in Italy that supplied cableways manufacturers. The two main manufacturers (Ansaldo and EEI) held 85% of the market while a few smaller firms held smaller market shares (no more than 10%). At this time, Leitner and Doppelmayr did not produce any electronic equipment themselves. In 2000, large cableways manufacturers started producing their own parts or buying standardised components for their applications and they now own 80% of the total market of electronic equipment for cableways in Italy. The remainder of the market is shared between other firms.

It has been suggested that the Cableways Directive played a role in this process as it has pushed for standardisation which is more favourable for the large manufacturers rather than the small ones. With reference to the electronic component sector, it was further noted that each installation has a group of products particular to it and because of the Directive; the products have to be the same as what was certified and it is difficult to modify systems. Any change to the product requires assessment by the notified body. Large cableway manufacturers produce subsystems to satisfy 90% of their needs, but they do not satisfy all of their needs, with more customised systems being produced by smaller companies. To a certain extent, this is similar to the position/view of a small manufacturer which produces highly customised cable driven installations which are not subject to the Directive and which suggested that their products complement the product portfolios of the large players and as such there is no competition between them and the large players.

Source: Based on an interview with a company, 1st March 2012.

4. OPTIONS FOR REVISION OF THE CURRENT FRAMEWORK (IMPACT ASSESSMENT STEPS 1 AND 2)

Under the Commission's *Impact Assessment Guidelines*¹⁶, the initial two steps of the impact assessment involve defining the problem, the objectives of legislative or non-legislative intervention and setting out the associated policy options. These steps relate to a number of problems identified in the Commission's Report on the implementation of the Directive (EC, 2011) as well as the foreseen alignment of the Cableways Directive to the New Legislative Framework (NLF) are set out in this section of the report.

The assessment in this section is based on EC (2011), information collected during the first round of consultation undertaken for this study as well as associated discussions with DG Enterprise.

4.1 Problems with the Current Directive

4.1.1 Defining the Specific Problems

Definition of Cableway Installations

As noted in Section 2, Article 1.2 of the Directive defines cableway installations as:

“installations made up of several components that are designed, manufactured, assembled and put into service with the object of carrying persons. These on-site installations are used for the carriage of persons in vehicles or by towing devices, for which the suspension and/or traction is provided by cables positioned along the line of travel”.

Article 1.3 of the Directive further specifies that:

“the installations concerned are:

- a) funicular railways and other installations with vehicles mounted on wheels or other suspension devices for which traction is provided by one or more cables;*
- b) cable cars where the cabins are lifted and/or displaced by one or more carrier cables; this category also includes gondolas and chairlifts;*
- c) drag lifts, where users with appropriate equipment are dragged by means of a cable.”*

Bearing in mind that the above definition was drawn up over a decade ago, it is worth considering whether it is still suited to current market developments. A broader and more general definition of cableway installations is actually provided in Recital 1 of the Directive. This definition explicitly recognises the potential for existing or future

¹⁶ European Commission (2009): **Impact Assessment Guidelines**, dated 15 January 2009 SEC(2009) 92

cableways which, perhaps meet only the “*passenger transport objective*” (see the first sentence of recital), but operate using different basic principles. This definition (which, however, has no ‘*intrinsic legal value*’) is as follows:

“Cableway installations designed to carry persons (hereinafter referred to as “cableway installations”) are designed, manufactured, put into service and operated with the object of carrying persons. Principally, cableway installations are mountain lift systems used in high-altitude tourist resorts and consisting of funicular railways, cable cars, gondolas, chairlifts and drag lifts, but may also consist of cableway installations used in urban transport facilities. Some types of cableway installations may use other, completely different basic principles which cannot be excluded a priori. Therefore, provision should be made for introducing specific requirements designed to achieve the same safety objectives as those laid down in this Directive.”

In this regard, it is also of note that based on Article 1.6 of the Cableways Directive, “*equipment for use in fairgrounds or amusement parks, for leisure purposes*” is excluded from the scope of the Directive. Further explanation is provided in the Application Guide to the Cableways Directive (EC, 2006), which states that the “*cable and passenger transport objective*” are the principal determinants of the scope of the Directive. A distinction has, therefore, been made between installation objectives (i.e. transport versus leisure activities). Although this exemption appears to apply only to equipment *for use in fairgrounds and amusement parks* (even though some language versions of the Directive refer to exhibition grounds and amusement parks¹⁷), there is a need to examine whether new kinds of equipment and installations are being placed on the market which are designed for leisure purposes but may also serve a transport function. For example, recent discussions regarding a novel system manufactured by Wiegand GmbH have highlighted the possibility that some installations may serve multiple functions.

In summary, there is a need to examine whether the existing scope of the Directive is still suited to current market developments.

Inclined Lifts and Small Funiculars

The second specific problem relates to issues experienced with regard to the approval of inclined lifts and small funiculars. While inclined lifts fall within the scope of the Lifts Directive (Directive 95/16/EC), small funiculars are subject to the Cableways Directive. The consultants’ understanding of the legal distinction between inclined lifts and small funiculars is described in Box 4.1, based on the text of the two Directives and their Application Guides.

¹⁷ Translations of the Directive understood by the consultants have been reviewed (Czech, English, French, German, Greek, Hungarian, Polish, Italian, Slovak and Spanish), with the conclusion that the Czech and Slovak versions of the Directive refer to ‘exhibition grounds’ rather than ‘fairgrounds’.

Box 4.1: The Relationship between the Cableways Directive and the Lifts Directive

Inclined lifts/small funiculars provide a good example of the interplay between the Lifts, Cableways and Machinery Directives:

- Inclined lifts permanently serving buildings or constructions are subject to the Lifts Directive. The **Lifts Directive** applies to lifts with guides "*inclined at an angle of more than 15 degrees to the horizontal*" and thus includes inclined lifts such as those installed alongside an escalator.
- Small funiculars in outdoor mountain or urban sites are “generally” not covered by the Lifts Directive; rather they are covered by the **Cableways Directive** AND are excluded from the scope of the Lifts Directive.

Installations for transporting persons at an angle of less than 15° to the horizontal are not considered lifts in the sense of the Lifts Directive and are, therefore, subject to the **Machinery Directive**.

The Application Guide to the Lifts Directive (EC, 2007) notes that “*the lifts to which the Directive applies are those “permanently” serving buildings and constructions*”. *Lifting appliances serving similar transport functions but which are installed in outdoor mountain or urban sites are generally not covered by the Lifts Directive. Most such outdoor appliances are covered by Directive 2000/9/EC relating to Cableways*”. In other words, in addition to the transport objective, *location* and *permanence* are key determinants of whether a lifting appliance falls under the Cableways Directive or the Lifts Directive (ultimately, the scope of the Cableways Directive).

The Guide to Application of the Cableways Directive (EC, 2006) also notes that while the exclusion (above) is categorical, “*features of certain installations may give rise to some uncertainty, as inclined lifts could also be considered as small funiculars*”. For these, the application of the legislation will have to rely on a joint case-by-case examination between the main contractor, the authorities and the manufacturer.

However, while the legal distinction between inclined lifts and small funiculars appears to be clearly set out in the two Directives and their Application Guides, problems have been experienced in the course of practical application of these provisions, in particular where formalised and effective communication between public authorities and companies is not established at an early stage of the planning process (it should be remembered that, as noted in Box 4.1, the Application Guide to the Cableways Directive stresses the importance of joint case-by-case examination between the main contractor, the authorities and the manufacturer). For this reason, it appears necessary to examine whether such problems could be avoided in the future by means of improved guidance.

Definitions of safety components, subsystems, infrastructure and installations

The Cableways Directive is based on the distinction between safety components, subsystems, infrastructure and installations.

- **Safety components** are defined as "*any basic component, set of components, subassembly or complete assembly of equipment and any device incorporated in the installation for the purpose of ensuring a safety function and identified by the safety analysis (...)*".

- **Subsystems** are not explicitly defined in the Directive, but are listed in Annex I of the Directive and include items such as cables, cable connections, station machinery, drives, brakes etc.
- **Installations** are defined as “*the whole on-site system, consisting of infrastructure and subsystems*”.
- **Infrastructure** is specially designed for each installation and includes the layout, station structures and structures along the line, and the foundations.

Safety components and subsystems are subject to the rules on the free movement of goods and to that purpose they are submitted to the EC conformity evaluation procedure and the EC declaration of conformity. On the other hand, installations continue to fall within the Member States’ competence and in this respect they are subject to an authorisation granted by the competent national authorities as regards their construction and putting into service. In addition, infrastructure is also not subject to free movement and may have to be tested in multiple Member States.

According to the EC Review of the Directive (EC, 2011), experiences from the first years of application of the Directive show that the distinction, in particular between safety components and subsystems, and between subsystems and infrastructure is not always very clear.

In addition, a cableway manufacturer pointed out that the distinction between subsystems and safety components on the one hand and infrastructure on the other hand should be refined in order to explicitly exclude series-produced supporting components from the scope of infrastructure.

Conformity Assessment of Subsystems

The Cableways Directive offers different modes of assessing product conformity for **safety components**, prior to the manufacturer affixing the CE marking. The guideline set by the Directive distinguishes between the assessment of the product design and the actual production.

The product design can be assessed via:

- EC type-examination (Module B),
- full quality assurance (Module H); and
- unit verification (Module G).

The production process can be assessed via:

- a production quality assurance (Module D),
- product verification (Module F);
- full-quality assurance module; or
- unit verification.

The details of the different conformity assessment procedures related to the safety components are set out in Annex V to the Directive. The manufacturer must then draw up and sign the EC Declaration of Conformity.

As regards the conformity evaluation procedure of the **subsystems**, Annex VII of the Directive does not provide a specific conformity assessment module for the conformity evaluation of the subsystems. It requires notified bodies to check the subsystems but does not give any indication on how they should do it. It is suggested that this situation has led to divergent interpretation and implementation of the conformity evaluation of the subsystems. For this reason, the introduction of a conformity assessment module specifically conceived for the subsystems is worth considering.

4.1.2 Significance of Each Problem Area

Definition of Cableway Installations

Responses to the questionnaire and information obtained from discussions with stakeholders show that 26% (6 of 23) of national authorities (throughout this chapter, the term ‘national authorities’ refers to authorities in EU Member States and non-EU EFTA countries which responded to consultation for this study) and 33% (2 of 6) of notified bodies believe that the current definition of cableways in Directive 2000/9/EC (Article 1.2 and 1.3) is too narrow and/or unsuited to market developments (see Table 4.1). The same number of national authorities and 50% (3 of 6) of notified bodies would also support a broader and more general definition of cableway installations (see Table 4.2).

Table 4.1: Do you think that the current definition of cableways in the Directive (Article 1.2 and 1.3) is too narrow and/or unsuited to market developments?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	6	26%	2	33%
No	17	74%	4	77%
TOTAL	23	100%	6	100%

Table 4.2: Would you support a broader and more general definition of cableway installations, for instance, similar to the definition provided in Recital 1 of the Directive?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	6	27%	3	50%
No	16	73%	3	50%
TOTAL	22	100%	6	100%

Given that over a quarter of respondents believe that the current scope of the Directive may be too narrow and/or unsuited to market developments, this issue is further examined in Section 5 of this report.

Inclined Lifts and Small Funiculars

Responses to the questionnaire and information obtained from discussions with stakeholders suggest that a degree of confusion has been experienced with regard to this issue. Table 4.3 shows that action to address potential confusion relating to the interplay of the Cableways, Lift and Machinery Directives is seen as necessary by 52% (11 of 21) of responding national authorities and by the vast majority (80%) of notified bodies (4 of 5). Several companies have also pointed to this problem, suggesting that companies would also welcome improved guidance. Respondents highlighted specific problems experienced in Germany and in the UK.

Table 4.3: Do you think that it is necessary to clarify the scope of the Cableways Directive as opposed to the Lifts Directive and the Machinery Directive?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	11	52%	4	80%
No	9	43%	1	20%
Other	1	5%		
TOTAL	21	100%	5	100%

Given that the majority of respondents would welcome further clarification in this area, this issue is further examined in Section 5 of this report.

Definitions of safety components, subsystems, infrastructure and installations

As shown in Table 4.4, 22% (5 of 23) of national authorities and 40% (2 of 5) of notified bodies have experienced problems arising from lack of clarity as to the difference between subsystems and infrastructure. Table 4.5 also shows that around 45% (10 of 22) of national authorities and 60% (3 of 5) of notified bodies have experienced problems arising from lack of clarity as to the difference between subsystems and safety components. Although this issue has been mentioned by some company respondents, overall, this does not seem to be a major problem for most cableway manufacturers. A manufacturer of electronic equipment/safety components stated that they experienced issues around the definition of the terms in the Directive (in particular in the period immediately following the Directive's entry into force) but these have always been solved in cooperation with the competent authorities. In addition, this company also questioned the feasibility of introducing a non-exhaustive list of safety components. Another company pointed to components that may often be classed as infrastructure but are in fact series-produced standardised products (such as line towers); this means that these components are not subject to free movement and require approval in individual Member States, thus allegedly presenting an unnecessary burden on cableway manufacturers. It was further suggested that in order to address this problem, it might be necessary to revisit the definition of infrastructure given in the Cableways Directive.

Overall, stakeholders appear keen on further clarification in this area. Table 4.6 indicates that the majority of respondents would appreciate introducing and/or applying a non-exhaustive list of safety components in the Directive.

Table 4.4: Have you experienced problems arising from lack of clarity as to the difference between subsystems and infrastructure?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	5	22%	2	40%
No	18	78%	3	60%
TOTAL	23	100%	5	100%

Table 4.5: Have you experienced problems arising from lack of clarity as to the difference between safety components and subsystems?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	10	45%	4	80%
No	12	55%	1	20%
TOTAL	22	100%	5	100%

Table 4.6: Do you think it is necessary to introduce a non-exhaustive list of safety components in the Directive, in order to clarify the differences between safety components and subsystems?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	15	68%	3	60%
No	7	32%	2	40%
TOTAL	22	100%	5	100%

Considering that significant proportions of respondents have experienced problems linked to the definition of safety components, subsystems and infrastructure and that the majority of respondents would welcome the introduction of a non-exhaustive list of safety components in the Directive, these issues are further examined in Section 5 of this report.

Conformity Assessment Modules

As shown in Table 4.7, the majority (11 of 20) of national authorities and of notified bodies (3 of 5) believe that there could be particular benefits from introducing a specific conformity assessment module for subsystems.

	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	11	55%	3	60%
No	9	45%	2	40%
TOTAL	20	100%	5	100%

In this regard, it is of interest that the ‘Agreed Recommendations for Use’ (RfUs)¹⁸ (that have recently been adopted by the Cableways Sectoral Group of Notified Bodies) suggest that

“in order to carry out the conformity assessment of the subsystems the NBs could refer to Module H (or Modules B+D) procedure, provided that they take into consideration the characteristics of the interfaces within the subsystem considered and define requirements towards other subsystems as well as the infrastructure”.

4.1.3 Aim of the Intervention

Overall, there is a need to address all of the above aspects in the impact assessment to be carried out in Sections 5 and 6 of this report. Thus, the aim of any intervention would be to:

1. **update or clarify the scope of the Directive** to account for market changes and to ensure that there are no grey areas as regards whether a cableway is covered by the Directive or not;
2. avoid **potential confusion with regard to inclined lifts and small funiculars**;
3. **clarify the difference(s) between safety components, subsystems and infrastructure** in order to enable optimal compliance with the Directive by industry stakeholders and enhance enforcement by authorities; and
4. address **differences in conformity assessment of subsystems**.

Overall, the intervention is aimed at ensuring the optimal functioning of the internal market and that all consumers can be effectively protected from risks arising from cableways.

4.1.4 Defining the Policy Options

Three policy options have been put forward:

- Option 1 (Baseline): Do nothing;

¹⁸

http://ec.europa.eu/enterprise/sectors/mechanical/files/cableways/cablrfus_en.pdf

- Option 2 (Soft Law): Clarify the above issues in the Application Guide to the Directive; and
- Option 3 (Legislative): Amend the Directive.

Policy Option 1 - Baseline

Option 1 is the do nothing option and involves making no changes to the existing situation, in particular:

- the existing narrow definitions in the Directive will be retained and there will be no clarification as regards installations serving both leisure and transport purposes;
- there will be no further guidance regarding the scope of the Cableways Directive as opposed to the Lifts Directive and the Machinery Directive;
- there will be no further clarification of the distinction between safety components and subsystems, and between subsystems and infrastructure; and
- no specific conformity assessment module for subsystems will be introduced in the Directive.

Policy Option 2 – Soft Law

Option 2 involves clarifying a number of key issues in the Application Guide to the Directive and may entail:

- retaining the existing narrow legal definition of cableways but clarifying that a broader and more general definition of cableway installations is available in Recital 1 and clarifying that installations¹⁹ “which are designed for leisure purposes, but could also be used as a means for transporting persons” are within the scope of the Directive;
- providing more extensive guidance on the implementation of existing provisions regarding inclined lifts and small funiculars. In this respect, it may also be advantageous to consider the feasibility of amending the Application Guide to the Lifts Directive so that (like the Application Guide to the Cableways Directive), it emphasises the importance of companies formally collaborating with the authorities at an early stage of the installation’s design to determine, on a case-by-case basis, whether it is preferable to construct an inclined lift or a small funicular;
- clarifying the distinction between safety components and subsystems in the Application Guide, for example, by introducing a non-exhaustive list of safety components; and
- amending the Application Guide to recommend using specific conformity assessment modules for the assessment of subsystems (conceivably, the same modules as those applied to safety components could be used).

¹⁹ Please note that this only refers to installations where suspension and/or traction is provided by cable.

Policy Option 3 - Legislation

Option 3 involves amending the legislation and involves:

- adopting the broader and more general definition of cableway installations as provided in Recital 1 into the legally binding text of the Directive and explicitly stating that installations²⁰ “which are designed for leisure purposes, but could also be used as a means for transporting persons” are within the scope of the Directive;
- amending the Cableways Directive to explicitly refer to inclined lifts in the list of exemptions from its scope. Article 1(6) of the Cableways Directive would thus read as follows: “This Directive shall not apply to: lifts within the meaning of Directive 95/16/EC(10), including inclined lifts”;
- with regard to clarifying the distinction between safety components, subsystems and infrastructure, amending the definition of infrastructure to explicitly exclude series-produced supporting components, and amending the list of subsystems to reflect this change and one or both of the following sub-options:
 - Sub-option 3A: introducing a non-exhaustive list of safety components in the Directive;
 - Sub-option 3B: introducing a definition of sub-systems; and
- amending Annex VII to the Cableways Directive to allow the use of specific conformity assessment modules for the assessment of subsystems.

4.2 Alignment of the Cableways Directive with the NLF

4.2.1 Defining the Specific Problems

As noted in various Commission documents, experience with the implementation of Union harmonisation legislation has shown, on a cross-sector scale, certain weaknesses and inconsistencies in the implementation and enforcement of legislation.

In order to remedy these horizontal shortcomings in EU harmonisation legislation observed across several industrial sectors, the New Legislative Framework (NLF) was adopted in 2008. Its objective is to strengthen and complete the existing rules and to improve practical aspects of their application and enforcement. The NLF consists of two complementary instruments: Regulation (EC) No 765/2008 dealing with market surveillance authorities and authorities responsible for notified bodies (accreditation) and Decision No 768/2008/EC dealing with the obligations for economic operators and notified bodies and establishing a common framework for the marketing of products. While the provisions of the NLF Decision and NLF Regulation are complementary and closely interlinked, the provisions of the NLF Decision are not directly applicable (unlike the NLF Regulation). To ensure that all economic sectors

²⁰ Please note that this only refers to installations where suspension and/or traction is provided by cable.

subject to EU harmonisation legislation benefit from the improvements of the NLF, it is recognised that the provisions of the NLF Decision need to be integrated into the existing product legislation.

More specifically, it is worth considering the costs and benefits that would arise from incorporating the following elements of Decision No 768/2008/EC into the Cableways Directive:

- obligations of economic operators;
- criteria for notified bodies; and
- safeguard clause mechanisms.

4.2.2 Significance of the Problem Area

Obligations of Economic Operators

The vast majority of national authorities (and notified bodies) do not believe that there is a major problem with non-compliant or dangerous products on the market in the cableways sector (see Table 4.8) – or that competition between economic operators is being distorted due to the presence of these products (see Table 4.9). One company respondent noted while there may be non-compliant products on the market, it does not believe that these are dangerous.

Table 4.8: In your opinion, is the presence of non-compliant or dangerous products on the market a major problem in the cableways sector?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	2	9%	0	0%
No	20	91%	4	100%
TOTAL	22	100%	4	100%

Table 4.9: In your opinion, is there a distortion of competition amongst economic operators due to different enforcement practices and/or the presence of non-compliant or dangerous products on the market?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	3	17%	2	66%
No	15	83%	1	33%
TOTAL	18	100%	3	100%

In addition to the responses given in Table 4.8, four of the five associations of cableway operators that provided a response to this question stated that they have not experienced such a problem. One association answered the relevant question in the affirmative but stated that these were non-compliant products but were not dangerous.

There is also no lack of trust in the CE mark (see Table 4.10), which in theory could arise, for instance, due to some actors simply affixing the CE marking to their products although these products do not fulfil the conditions for being CE marked. Due to the fact that the major manufacturers of cableways are European manufacturers, there are also no significant difficulties with the tracing of economic operators (or indeed, products).

Table 4.10: In your opinion, is there a lack of trust in CE marking of safety components?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	1	5%	1	33%
No	20	95%	2	66%
TOTAL	21	100%	3	100%

Overall, while it is recognised (as shown in Table 4.11) that there are likely to be benefits from clarifying the roles and responsibilities of economic operators in accordance with the NLF, the majority (7 of 10) of national authorities also note that the overall benefits of aligning the Directive with the NLF are unlikely to outweigh the costs incurred (see Table 4.12).

Table 4.11: Are there likely to be particular benefits from clarifying the roles and responsibilities of economic operators in accordance with the NLF?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	11	92%	3	75%
No	1	8%	1	25%
TOTAL	12	100%	4	100%

Table 4.12: Are the benefits (or cost savings) from alignment with the NLF likely to outweigh any costs arising from this?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	3	30%	2	50%
No	7	70%	2	50%
TOTAL	10	100%	4	100%

Criteria for Notified Bodies

The majority of national authorities do not believe that there are problems with the quality of the notified bodies involved with cableways, although a number of national authorities have identified such problems, as shown in Table 4.13 below. The views of the notified bodies were mixed. From this it can be deduced that while the quality of most notified bodies is high, some believe that there are notified bodies whose level of expertise with regard to cableways is not as high as that of some others.

Table 4.13: In your opinion, are there problems with the quality of certain notified bodies involved with cableways?				
	National Authorities		Notified Bodies	
	No. of Responses	% of Responses	No. of Responses	% of Responses
Yes	5	29%	1	33%
No	12	71%	2	67%
TOTAL	17	100%	4	100%

In theory, the NLF Decision could still improve the existing Cableways Directive by:

- **revising the procedure for notification of notified bodies:** Member States notifying a body must include information on the evaluation of competence of that body. Where competence is demonstrated by an accreditation certificate, a facilitated procedure applies. Where accreditation has not been used to evaluate the competence of a notified body, the notification must comprise the documentation demonstrating how the competence of that body has been evaluated. Other Member States will have the possibility to object to a notification within a certain period; and
- **reinforcing the information and other obligations for notified bodies:** Notified bodies must inform notifying authorities about refusals, restrictions, suspensions and withdrawals of certificates and other notified bodies about negative conformity assessment results. They must also perform conformity assessment in a proportionate manner taking due account of the size of an enterprise, the structure of the sector, the complexity of the product technology, etc.

Safeguard Procedure

The NLF revises the existing safeguard clause procedure. It introduces a two-step procedure which consists of a ‘domestic’ phase and one of information exchange between Member States, and specifies the steps to be taken by the authorities concerned, when a non-compliant subsystem and/or safety component is found.

A ‘real’ safeguard clause procedure (i.e. one leading to a Decision at Commission level on whether a measure is justified or not) is only launched when another Member State objects to a measure taken against a subsystem and/or safety component. Where there is no disagreement on the restrictive measure taken, all Member States must take the appropriate action on their territory.

Summary

Based on responses to the questionnaire and information obtained from discussions with stakeholders, it is clear that although some of the generic issues which necessitated the NLF may not be applicable to the cableways sector, there is some recognition and acceptance that some of the NLF provisions could be used to improve the functioning of the Cableways Directive.

4.2.3 Aim of the Intervention

The aim of any intervention is to:

1. clarify the obligations of the economic operators (manufacturers, importers, distributors, etc.);
2. update the criteria for notified bodies; and
3. align the safeguard procedure with that given in the NLF.

Overall, the intervention is aimed at ensuring the optimal functioning of the internal market and that all consumers can be effectively protected from risks arising from cableways.

4.2.4 Defining the Policy Options

Three policy options have been put forward:

- Option 1 (Baseline): Do nothing;
- Option 2 (Soft Law): Clarify these issues in the Application Guide to the Directive; and
- Option 3 (Legislative): Amend the Directive.

A comparative review identifying the main differences between the current framework on cableways and the NLF is provided in Annex II to this report.

4.3 Summary of Policy Options

A summary of policy options for revision of the Directive or its application guide is provided in Table 4.14.

Table 4.14: Summary of Policy Options				
Problem area/Issue	Description of problem to be addressed	Option 1 (No change)	Option 2 (Soft law, i.e. clarification in the Application Guide)	Option 3 (Legislative change, i.e. amending the Directive)
Problem Area A: Change in the definition of cableways installations/scope of the Directive	There may be new kinds of installations which are designed for leisure purposes but may also serve a transport function, i.e. the Directive may be unsuited to market developments or there may be grey zones with regard to its scope	No change	Option A2: Amending the Application Guide to: <ul style="list-style-type: none"> clarify that a broader definition of cableways is available in Recital 1 of the Directive; and further highlight that cableway installations “designed for leisure purposes but also used as a means for transporting people” are in the Directive’s scope 	Option A3: Amending the Directive to: <ul style="list-style-type: none"> adopt Recital 1 into the legally binding text of the Directive; explicitly state that cableway installations “which are designed for leisure purposes, but could also be used as a means for transporting people” are within the Directive’s scope
Problem Area B: Addressing confusion over inclined lifts and small funiculars	The legal distinction between inclined lifts and small funiculars is clearly set out in the Cableways and Lifts Directive but there may be problems with practical application of these provisions		Option B2: Providing more extensive guidance in the Application Guide to the Cableways Directive and amending the Application Guide to the Lifts Directive to underscore the importance of companies formally collaborating with the authorities at an early stage of planning and design	Option B3: Amending the Cableways Directive to explicitly exempt inclined lifts from its scope. Article 1(6) of the Cableways Directive would read: “This Directive shall not apply to: lifts within the meaning of Directive 95/16/EC, including inclined lifts”
Problem Area C: Clarifying/amending the definition of safety components, subsystems and infrastructure	The distinction between safety components, subsystems and infrastructure is not always very clear.		Option C2: Clarifying the distinction between these terms in the Application Guide, for example, by introducing a non-exhaustive list of safety components	Option C3: More explicitly exclude series-produced components from the definition of infrastructure and either: <ul style="list-style-type: none"> Sub-option C3A: introduce a non-exhaustive list of safety components; or Sub-option C3B: define sub-systems
Problem Area D: Changing conformity assessment of subsystems	The absence of a specific conformity assessment module for subsystems has led to divergent practices		Option D2: Amending the Application Guide to recommend using specific conformity assessment modules for the assessment of subsystems	Option D3: Amending Annex VII to the Cableways Directive to allow the use of specific conformity assessment modules for the assessment of subsystems
Problem Area E: Alignment with the NLF: Obligations of Economic Operators	The Cableways Directive is to be aligned with the NLF, in particular with the NLF Decision (Decision No 768/2008/EC)	No alignment with the NLF	Option E2: Including a description of requirements on economic operators as given in Articles R2 to R7 of the NLF Decision into the Application Guide	Option E3: Amending the Cableways Directive in accordance with Articles R2 to R7 of the NLF Decision
Problem Area F: Alignment with the NLF: Criteria for Notified Bodies			Option F2: Including a description of requirements on notified bodies as given in the NLF Decision into the Application Guide, e.g. reinforcing information and other obligations on notified bodies and the procedure for their notification (Articles R23, R26 and R28)	Option F3: Amending Article 16 of the Cableways Directive as well as Annex VIII in accordance the NLF Decision, including revising the procedure for notification of notified bodies and reinforcing information and other obligations on notified bodies
Problem Area G: Alignment with the NLF: Safeguard Procedure			Option G2: Including a description of safeguard measures as given in Articles R31 to R32 of the NLF Decision into the Application Guide, including the two-stage safeguard procedure	Option G3: Amending the Cableways Directive in accordance with Articles R31 to R32 of the NLF Decision, including a two-stage safeguard procedure, where non-compliance is initially dealt with at the national level

5. IMPACT ASSESSMENT OF OPTIONS FOR REVISION OF THE CURRENT FRAMEWORK (IA STEPS 3 TO 6)

5.1 Introduction

The aim of Part 2 of this study is to assess the impacts of the policy options identified in the previous Section and summarised in Table 4.14.

The approach to the impact assessment elaborated by this study closely follows the European Commission's *Impact Assessment Guidelines*²¹. The key steps, therefore, in carrying out the assessment are:

- **Impact Assessment (IA) Step 1:** Identification of existing problems and objectives of legislative intervention;
- **IA Step 2:** Defining the policy options;
- **IA Step 3:** Identification of impacts that are relevant and key stakeholders that might be affected;
- **IA Step 4:** Initial assessment of the importance of these impacts based on their expected magnitude and on the likelihood of them occurring;
- **IA Step 5:** In-depth analysis of the most significant impacts;
- **IA Step 6:** Comparison of the policy options; and
- **IA Step 7:** Identification of the preferred policy option.

The main problems with the current Directive and the associated objectives of legislative intervention (Step 1) were identified in a report prepared by the Commission in 2011²² and further analysed in Section 4 of this report, which also sets out the policy options for addressing these problems (Step 2). This section therefore focuses on Steps 3 to 7. Step 3 is dealt with below for all problem areas and Steps 4 to 6 analysed subsequently as per each problem area.

The assessment presented in this Section is based on desk research by the consultants and on consultation with stakeholders in the cableway sector. An overview of companies and organisations contacted and of responses received is provided in Annex I.

5.2 IA Step 3: Identification of Relevant Impacts and Key Stakeholders

The aim of Step 3 is to compile a list of impacts and stakeholders that are relevant to the policy options under consideration. This is achieved by reviewing the comprehensive checklist of potential economic, environmental and social impacts set

²¹ European Commission (2009): **Impact Assessment Guidelines**, dated 15 January 2009 SEC(2009) 92

²² European Commission (2011): **First report on the implementation of Directive 2000/9/EC relating to cableway installations designed to carry persons**, report from the Commission to the European Parliament and the Council, COM(2011) 123 final dated 16.3.2011.

out in Tables 1-3 of the Commission’s Impact Assessment Guidelines and identifying any additional impacts.

It can be expected that the list of impacts and stakeholders that might potentially be affected would be the same across all problem areas and the IA Step 3 is therefore carried out jointly for all problem areas as well as for the alignment of the Directive with the NLF. The outcome (presented in Table 5.1) is a list of impacts that may potentially arise and stakeholders that might be affected by any change to the Cableways Directive or its Application Guide.

Table 5.1: Initial Screening of the Relevance of Impacts Listed in the Commission’s Impact Assessment Guidelines	
Impact type	Relevant?
<i>Economic Impacts</i>	
Functioning of the internal market and competition	Potentially relevant
Competitiveness, trade and investment flows	Potentially relevant
Operating costs and conduct of business/SMEs	Potentially relevant
Administrative burdens on businesses	Potentially relevant
Public authorities	Potentially relevant
Property rights	Not relevant
Innovation and research	Potentially relevant
Consumers and households	Potentially relevant
Specific regions and sectors	Potentially relevant
Third countries and international relations	Not relevant
Macroeconomic environment	Not relevant
<i>Social Impacts</i>	
Employment and labour markets	Not relevant
Standards and rights related to job quality	Not relevant
Social inclusion and protection of particular groups	Not relevant
Gender equality, equality treatment and opportunities, non-discrimination	Not relevant
Individuals, private and family life, personal data	Not relevant
Governance, participation, good administration, access to justice, media and ethics	Not relevant
Public health and safety	Potentially relevant
Crime, Terrorism and Security	Not relevant
Access to and effects on social protection, health and educational systems	Not relevant
Culture	Not relevant
Social impacts in third countries	Not relevant
<i>Environmental Impacts</i>	
The climate	Not relevant
Transport and the use of energy	Not relevant
Air quality	Not relevant
Biodiversity, flora, fauna and landscapes	Not relevant
Water quality and resources	Not relevant
Soil quality or resources	Not relevant
Land use	Not relevant
Renewable or non-renewable resources	Not relevant
The environmental consequences of firms and consumers	Not relevant
Waste production/generation/recycling	Not relevant
The likelihood or scale of environmental risks	Not relevant
Animal welfare	Not relevant
International environmental impacts	Not relevant

For each problem area, the detailed analysis presented in the remainder of this section thus focuses only on the sub-set of impacts that are deemed relevant. It can immediately be seen that **the focus of the impact assessment will be on economic impacts** as the proposed options cannot be expected to have significant social and environmental impacts, although impacts on public health and safety are going to be considered.

However, not all questions listed under the relevant impact categories in the Commission’s IA Guidelines are relevant to the policy options at hand. The key questions that are to be considered for each policy area as well as for the alignment of the Directive with the NLF are given in bold in Table 5.2. It can be assumed that impacts relating to the other questions would be none or minimal.

Impact type	Key Questions
Functioning of the internal market and competition	<ul style="list-style-type: none"> • What impact (positive or negative) does the option have on the free movement of goods, services, capital and workers? • <i>Will it lead to a reduction in consumer choice, higher prices due to less competition, the creation of barriers for new suppliers and service providers, the facilitation of anti-competitive behaviour or emergence of monopolies, market segmentation, etc.?</i>
Competitiveness, trade and investment flows	<ul style="list-style-type: none"> • <i>What impact does the option have on the global competitive position of EU firms? Does it impact on productivity?</i> • What impact does the option have on trade barriers? • Does it provoke cross-border investment flows (including relocation of economic activity)?
Operating costs and conduct of business/SMEs	<ul style="list-style-type: none"> • <i>Will it impose additional adjustment, compliance or transaction costs on businesses?</i> • How does the option affect the cost or availability of essential inputs (raw materials, machinery, labour, energy, etc.)? • Does it affect access to finance? • Does it impact on the investment cycle? • Will it entail the withdrawal of certain products from the market? Is the marketing of products limited or prohibited? • Will it entail stricter regulation of the conduct of a particular business? • Will it lead to new or the closing down of businesses? • <i>Are some products or businesses treated differently from others in a comparable situation?</i>
Administrative burdens on businesses	<ul style="list-style-type: none"> • <i>Does it affect the nature of information obligations placed on businesses (for example, the type of data required, reporting frequency, the complexity of submission process)?</i> • <i>What is the impact of these burdens on SMEs in particular?</i>
Public authorities	<ul style="list-style-type: none"> • <i>Does the option have budgetary consequences for public authorities at different levels of government (national, regional, local), both immediately and in the long run?</i> • <i>Does it bring additional governmental administrative burden?</i> • Does the option require the creation of new or restructuring of existing public authorities?
Innovation and research	<ul style="list-style-type: none"> • <i>Does the option stimulate or hinder research and development?</i> • Does it facilitate the introduction and dissemination of new production methods, technologies and products? • Does it affect intellectual property rights (patents, trademarks, copyright, other know-how rights)? • Does it promote or limit academic or industrial research?

Table 5.2: Key Questions to be Considered for Each Problem Area	
Impact type	Key Questions
	<ul style="list-style-type: none"> • Does it promote greater productivity/resource efficiency?
Consumers and households	<ul style="list-style-type: none"> • Does the option affect the prices consumers pay? • Does it impact on consumers' ability to benefit from the internal market? • Does it have an impact on the quality and availability of the goods/services they buy, on consumer choice and confidence? (cf. in particular non-existing and incomplete markets) • Does it affect consumer information and protection? • Does it have significant consequences for the financial situation of individuals / households, both immediately and in the long run? • Does it affect the economic protection of the family and of children?
Specific regions and sectors	<ul style="list-style-type: none"> • Does the option have significant effects on certain sectors? • Will it have a specific impact on certain regions, for instance in terms of jobs created or lost? • Is there a single Member State, region or sector which is disproportionately affected (so-called 'outlier' impact)?
Public health and safety	<ul style="list-style-type: none"> • Does the option affect the health and safety of individuals/populations, including life expectancy, mortality and morbidity, through impacts on the socio-economic environment (working environment, income, education, occupation, nutrition)? • Does the option increase or decrease the likelihood of health risks due to substances harmful to the natural environment? • Does it affect health due to changes in the amount of noise, air, water or soil quality? • Will it affect health due to changes energy use and/or waste disposal? • Does the option affect lifestyle-related determinants of health such as diet, physical activity or use of tobacco, alcohol, or drugs? • Are there specific effects on particular risk groups (determined by age, gender, disability, social group, mobility, region, etc.)?

The key stakeholders that will be taken into account when considering the relevant impacts include:

- cableway manufacturers;
- manufacturers of subsystems and safety components;
- notified bodies;
- national authorities;
- European Commission; and
- cableway operators.

5.3 Assessment of Most Significant Impacts (IA Steps 4 to 6)

This section provides the core of the impact assessment by means of identifying and assessing the most significant impacts for each problem area and policy option.

5.3.1 Problem Area A: Changing the Definition of Cableways Installations

Summary of the Aims of Intervention and of the Relevant Policy Options

Given that the definition of cableway installations (which determines the scope of the Directive) was drawn up over a decade ago, it is worth considering whether it is still suited to current market developments. A broader and more general (but not legally binding) definition of cableway installations is in fact provided in Recital 1 of the Directive. This definition explicitly recognises the potential for existing or future cableways which perhaps meet only the *suspension and/or traction by cable* and *passenger transport* criteria but operate using basic principles that are different from those currently described in the Directive.

In this respect, it is of note that recent discussions in the Standing Committee have highlighted the possibility that some installations may serve a dual function encompassing both use as a means of transport (from Point A to Point B) and use for amusement purposes only (departure from Point A with return to the same point). Therefore, there is a need to examine whether new kinds of equipment and installations are being placed on the market which are designed for leisure purposes but may also serve a transport function. If so, there is a need to clarify whether these installations should be included within the scope of the Directive.

To this end, two policy options are proposed (please note that these only relate to installations where suspension and/or traction is provided by cable):

- **Option A2:** Amending the Application Guide to clarify that a broader definition of cableways is available in Recital 1 of the Directive and to further highlight that installations “designed for leisure purposes but also used as a means for transporting people” are in the Directive’s scope; and
- **Option A3:** Amending the Directive to adopt Recital 1 into the legally binding text of the Directive and to explicitly state that installations “which are designed for leisure purposes, but could also be used as a means for transporting people” are within the scope of the Directive.

These options are designed to ensure that installations with a dual (transport and leisure) purpose are included in the scope of the Directive even where they cannot be unequivocally described as funiculars, cable cars or drag lifts. This aims to ensure that novel types of cableway systems are included within the scope of the Directive.

Additional Information on the Significance of the Problem to be Addressed

This section discusses several types of installations and considers whether these could be seen as having a dual (transport and leisure) purpose. The types of installations discussed in this section reflect stakeholders’ suggestions of borderline systems that are currently not within the scope of the Directive, in particular those serving a dual transport and amusement purpose.

One example of a novel cableway system which arguably has a dual function is provided by the **Wieli** system manufactured by the German company Josef Wiegand GmbH & Co. KG (see Box 5.1 for a brief description of this system). A recent Opinion of the Standing Committee for Cableways Directive²³, which deals with the Wieli system and other similar products, states that the Wieli system, when used (in winter, for example) to transport people up a slope to carry out other activities, cannot be considered as an installation purely intended for leisure purposes and it is therefore subject to the Cableways Directive. As such, it would appear reasonable for the baseline scenario in this study to treat the Wieli system as already being within the scope of the Cableways Directive. However, according to Josef Wiegand GmbH & Co. KG, it should not be assumed that the Wieli system is already covered by the Cableways Directive, even after the Opinion of the Standing Committee for Cableways Directive.²⁴ In the absence of further information on the implementation of the Opinion of the Standing Committee for Cableways Directive, for the purposes of this study the Wieli system is modelled as being subject to the Cableways Directive under the baseline scenario.²⁵ As a result, the merits and impacts of the inclusion of this particular installation into the Directive are not discussed in this report (although Box 5.1 provides some information on the magnitude of impacts that might be associated with the inclusion of the Wieli system into the scope of the Directive).

Box 5.1: The Wieli System

The Wieli system consists of ‘transporters’ or vehicles which are driven uphill on tracks and wheels by a cable. Passengers are able to alight at intermediate stations (such as at the top of a hill) where they can undertake other activities such as skiing, snowboarding, tubing and tobogganing. Passengers can remain in the vehicles or can return to the vehicle to be transported back to the starting point by force of gravity. The systems also appear to have different uses in summer and winter with it being used as a means of transport for skiers etc. in winter and more as an amusement ride in summer. Therefore, the system may be classified as having a dual (transport and amusement) function.

Josef Wiegand GmbH & Co. KG is an SME with approximately 200 employees. According to Josef Wiegand GmbH & Co. KG, there are five Wieli installations in Europe, with the company currently developing two more and the market potential for additional installations.

According to Josef Wiegand GmbH & Co. KG, the cost of approval of the Wieli system in accordance with the Cableways Directive can be estimated at around €70,000 (it is not clear to what extent these are one-off or recurring costs), while approval of another Wieli installation under other requirements is estimated to be associated with costs in the region of €6,000.

Sources: Personal communication with Josef Wiegand GmbH & Co. KG, August 2012 and <http://www.wiegandslide.com/wieli-transport-system.html>

²³ Opinion of the Standing Committee for Cableways Directive 2000/9/EC on the Wieli system and other similar products (to be annexed to the Minutes of the X Standing Committee meeting of 24/03/2011, following the consensus expressed by the Committee members at the XI Standing Committee meeting of 13/03/2012)

²⁴ The company (Josef Wiegand GmbH & Co. KG) stated that it is currently in the process of developing two Wieli installations in two different jurisdictions, one of which is being treated by the relevant public authorities as being subject to the Cableways Directive while the other is seen as falling outside its scope.

²⁵ Please note that this should not be construed as the consultants expressing an opinion on whether the Wieli system is now unambiguously included into the scope of the Directive.

However, the criteria used by the Standing Committee to determine whether this particular installation falls within the Directive's scope are taken into account below when considering whether particular types of installations that may serve both leisure and transport purposes fall within the scope of the Directive (indeed, the Opinion of the standing Committee refers not only to the Wieli system but also to other similar products). In particular, the Opinion suggests that when an installation is used solely for leisure purposes (i.e. to provide amusement rides) it falls outside the scope of the Directive but when an installation is also intended to transport people (in order to carry out other activities), it shall comply with the national legislation transposing the Cableways Directive.

Four notified bodies based in Austria, Germany and Slovakia pointed to cable supported installations called "**Flying Fox**"²⁶, "**Sky-Glider**"²⁷ **and other zip-lines**. These installations to a certain extent resemble cableways as suspension is provided by a cable and gravity provides traction for the rider that is usually attached to the cable by means of a simple mechanism or a simple multi-person cable car. These installations appear to be found most often in amusement parks, sports centres and playgrounds. While riders generally travel from Point A to B, rather than return back to the starting point, the purpose of the journey appears to be amusement rather than transport. As such, it is not expected that the Options A2 and A3 would bring such zip-line installations into the scope of the Cableways Directive.

The Slovenian competent authority and a Czech notified body pointed to the existence of **water skiing lifts**. The global market leader in this segment is said to be Rixen Cableways which holds around 80% of the market and has installed over 200 water cableways worldwide.²⁸ However, these installations appear not to have the purpose of transporting riders between two geographically distinct points but rather towing the water-skier (this opinion has also been expressed by Rixen Cableways which stated that this is the uniform interpretation throughout the EU).

A cableways manufacturer and several Member State authorities suggested that borderline installations include some **dry toboggan runs and/or Alpine Coasters**. There currently appear to be three manufacturers of dry toboggan runs and/or Alpine Coasters in the EU. These include:

- Brandauer GmbH²⁹ (Austria);
- Erbschloe Fun Construct GmbH³⁰ (Germany); and
- Josef Wiegand GmbH & Co. KG³¹ (Germany).

²⁶ See for example <http://www.olympiapark.de/de/home/touren-und-sightseeing/gefuehrte-touren/flying-fox/>

²⁷ Sky-Glider is manufactured by Rodlsberger GmbH of Austria. For more information see <http://www.skiareatest.com/erich/rodlsberger/fisser2.pdf>

²⁸ See <http://www.rixen-seilbahnen.de/english/products/waterski--wakeboard-cableways-from-the-world-market-leader/waterski--wakeboard-cableways.html>

²⁹ See <http://www.braso.at>

³⁰ See <http://www.funconstruct.de>

³¹ See <http://www.wiegandslide.com/rodelbahnen.html>

At least two of the above companies have been confirmed to be SMEs.

Essentially, dry toboggan runs and Alpine Coasters can use two modes of mechanical uphill transport:

- existing cableway installations (chairlifts, gondola lifts, drag lifts); or
- dedicated modes of uphill transport (so-called lifters).

Information provided by manufacturers of dry toboggan runs and/or Alpine Coasters suggests that toboggan runs and lifter systems may typically be used in closed circuits, with passengers returning back to the point of departure.. While it is technically possible to construct lifter systems that allow passengers to disembark at the upper terminal, isolated uphill journeys typically do not take place. This is for two main reasons. Firstly, vehicles on dry toboggan runs generally require sufficient weight (i.e. passengers) to travel back to the lower terminal by force of gravity (although some technical solutions appear not to require this); should passenger disembark at the upper terminal, the operator would have to station personnel at the upper terminal to add ballast to vehicles commencing their downhill journey. Secondly, allowing passengers to disembark at the upper terminal would effectively bring these lifter systems into the scope of the Cableways Directive, which is something that manufacturers of these installations appear to be keen to avoid.

However, occasional non-standard use of lifter systems for transport purposes cannot be ruled out. Examples provided by Josef Wiegand GmbH & Co. KG refer to the possibility of unauthorised disembarking by members of the public or the operator consenting, for example, to a beekeeper using the lifter system for convenient access to a hilltop beehive. For this reason, it is essential to clarify whether policy action wishes to target standard transport use (i.e. installations that are intended and actually used as a means of transport) or potential transport use (i.e. installations which tend not to, but theoretically could, be used to transport passengers between Points A and B). Should only standard transport use be targeted, it appears that dry toboggan runs fall outside the scope of the Directive under the baseline scenario as well as after implementation of Options A2 and A3. However, targeting non-standard use would bring these installations into the Directive's scope (in particular under Options A2 and A3). For the purposes of this study, it is assumed that only standard use is targeted and it is therefore the intention of the consultants that references to 'installations used as a means of transporting people' as well as to 'installations which could be used as a means of transporting people' are construed as referring to standard rather than non-standard use. In conclusion, dry toboggan runs and Alpine Coasters appear not to be brought into the Directive's scope by the policy options under consideration.

The Netherlands stated that cableways used in in **indoor ski centres** can be considered to serve "a mixed function". However, as the Cableways Directive is already applied to these installations, they are not relevant to the policy options under consideration.

A somewhat different issue has been mentioned by stakeholders in Austria with regard to small cableways which are normally used for transporting material but can

also be used for occasional transport of passengers. There are approximately 100 such installations in Austria and it has been argued that the exemption for industrial installations in Article 1.6 of the Cableways Directive is not sufficiently clear in this respect. However, as this issue is not directly relevant to Policy Options A2 and A3, it is not considered further in this report.

A cableway manufacturer noted that they were aware of two or three mixed purpose installations (in addition to the Wieli System) but these are located outside of the EU.

The UK competent authority further stated that they experienced one case where it was not easy to determine whether an installation served a transport or a leisure function. This related to a rail mounted installation intended for transporting visitors between a car park and an adjacent amusement park.

Other stakeholders (including competent authorities, operators and cableway and subsystem manufacturers) have not identified any such systems or problems with such installations.

Summary of Stakeholder Views

Based on the responses received to consultation, many stakeholders (with the exception of manufacturers of dry toboggan runs and Alpine coasters that might be opposed to policy action in general; please also note that the views of cableway operators are also dealt with separately further in this section) would prefer for changes to be enacted through Option A3 rather than Option A2. The majority of competent authorities, notified bodies and manufacturers, from whom responses to consultation were received, express a preference for Option A3. Option A3 is preferred as it is considered that this Option will ensure that there are no 'grey areas' and will ensure that adoption is conducted in a universal and binding manner across all EU Member States, avoiding any potential for confusion.

Of the 18 competent authorities who responded, 12 would prefer changes to be enacted through Option A3, three would prefer Option A2, and the remaining three do not believe any change is necessary. Of the three notified bodies who responded to consultation, three supported Option A3 and one did not support any change. Two of the five manufacturers of cableways and manufacturers of subsystems and safety components, who responded to consultation, support Option A3, two do not believe any change is required (but if it were implemented, one would prefer Option A2) and one supports Option A2. Please note that despite expressing preference for Option A3, most respondents have not provided any information on past problems or installations that would be newly included into the scope of the Directive.

In addition, the operator associations from France, Germany, Austria and Switzerland indicated that they do not support an extension of the Cableways Directive by means of adopting Recital 1 into the legal text of the Directive. The Finnish operators association stated that they were in favour of legislative change but the Slovenian association did not see any need to change the current provisions. Please note that the above views of operators' associations only relate to one of the two elements of

Option A3 (Recital 1 vs. clarification on mixed purpose installations) and as such they are dealt with separately in this paragraph. The Czech cableway operators' association, on the other hand, stated that they support the inclusion of installations such as dry toboggan runs into the scope of the Directive as the current situation is confusing for operators. Dry toboggan runs tend to be managed by the same companies that operate ski lifts and these companies would welcome clarity and a unified approach for all installations managed by them.

Consultation with manufacturers of dry toboggan runs and Alpine Coasters suggests that these companies may in general not be in favour of inclusion of their products into the scope of the Cableways Directive. Some of the potential problems that may arise from the inclusion of these installations into the scope of the Cableways Directive, raised in a consultation response from Josef Wiegand GmbH & Co. KG, can be summarised as follows:

- additional costs could have significant cost impacts on the manufacturer without corresponding improvement in passenger safety;
- should the whole installation be included into the scope of the Directive (as opposed to the uphill part only), this would have negative impacts on passenger safety as the Cableways Directive is said not to be suitable for the downhill part; and
- should only a part of the installation be included into the scope of the Cableways Directive, this would result in one installation being regulated by two different sets of (potentially contradictory) legal requirements.

Josef Wiegand GmbH & Co. KG further proposed that should these installations be included into the scope of the Directive, it would be beneficial to amend Article 1(3) of Cableways Directive so that a fourth category of cableways is established, encompassing so-called 'special cableway installations'. Modified technical solutions for these installations could then be established within the framework of the Directive.

Impact on the Internal Market and Competition

As no systems that would be included into the scope of the Directive have been identified, it is expected that the proposed options would have **no impacts** with regards to consumer choice, competition, barriers for new suppliers and service providers, anti-competitive behaviour or the emergence of monopolies and market segmentation.

Impact on Competitiveness, Trade and Investment Flows

Minimal impacts on the global competitive position of EU firms, trade barriers and investment flows are expected.

Operating Costs and Conduct of Business/SMEs

No companies that would be impacted have been identified and as such no costs would arise.

Administrative Burdens on Businesses

It is not considered that Options A2 and A3 would affect the existing administrative burden on businesses.

Public Authorities

One-off costs

Should Option A3 be implemented, EU Member States would incur costs arising from the need to transpose the relevant changes into national legislation. In practice, the exact costs would depend on the specific changes agreed in the final version of the Directive and the regulatory model used in each country to implement the Directive (i.e. the number of departments involved in transposition or implementing the Directive). These costs are therefore likely to vary significantly between Member States (for example, Sweden is obliged to carry out an impact assessment on new EU legislation; it is expected that this may not be the case in some Member States).

Specific data on the costs of transposition of EU legislation by Member States and their relevant departments/ministries are not readily available. As noted in RPA (2012)³², one UK impact assessment states that “*the costs of amending current regulations to implement a Directive are thought to be around £700,000*” (around €800,000). Although no details are given on the basis for this calculation, it is expected that these costs relate to a rather substantial legislative change and would include those costs of making (e.g. preparing an impact assessment, preparing a transposition note and presenting the legislation before parliament), printing and publishing the legislation. This estimate is significantly higher than the cost estimated in UK Department for Transport (2011) which notes that “*a combination of legal and technical resources as well as policy advisors are usually required to implement such a change, costing approximately £15,687 per amendment*” (approximately €18,000). Considering the relatively limited nature of many of the proposed changes to the Cableways Directive, it appears more likely that the costs of transposing these changes would be closer to the low-end estimate.

Considering that the Cableways Directive needs to be aligned with the NLF, it can be expected that transposition costs arising from Option A3 alone would be significantly lower than this estimate.

³² RPA (2012): Ex-Post Evaluation and Impact Assessment Study on Enhancing the Implementation of the Internal Market Legislation Relating to Motor Vehicles, http://www.rpaltd.co.uk/documents/J746_MotorVehicleLegislation_FinalReport_publ.pdf

The cost of changing the Application Guide attributable specifically to Option A2 is expected to be minimal as certain structures (regular meetings of the most relevant stakeholders such as those of the Standing Committee and of the Cableway Installations Sectoral Group of Notified Bodies) are already in place and these may provide the expertise needed to elaborate proposals to change the Application Guide.

Recurring costs

The Belgian competent authority noted that Option A3 would reduce recurring administrative costs due to avoidance of recurring queries. The German authorities expect increased administrative burden from Option A2 (associated with providing advice) but reduced administrative burden from Option A3.

Innovation and Research

No significant impacts are expected, although it is possible that Options A2 and A3 may have some impacts on companies currently developing products that could theoretically be newly brought into the scope of the Directive.

Consumers and Households

No impacts are expected.

Specific Regions and Sectors

No impacts are expected.

Public Health and Safety

Although three stakeholders pointed to potential improvements in passenger safety as a result of changes to the current framework; however, further information on specific problems with passenger safety has not been provided. As a more general comment, other stakeholders expect no safety improvements from the policy options assessed by this study.

Conclusion

There is no evidence that installations that would be affected by Option A2 or A3 are currently sold in the EU, perhaps with the exception of one case.³³ Therefore, these Options are unlikely to bring specific benefits at the present time. Benefits may arise

³³ This assertion is based on the baseline scenario in this study treating the Wieli system manufactured by Josef Wiegand GmbH & Co. KG as already being within the scope of the Directive, following the recent Opinion of the Standing Committee for Cableways Directive 2000/9/EC on the Wieli system and other similar products (please note that this should not be construed as the consultants expressing an opinion on whether the Wieli system is now unambiguously included into the scope of the Directive). This assertion is also based on the assumption that the proposed options would focus on the standard rather than potential non-standard use of dry toboggan lifter systems, which tend not to (but could theoretically) be used to transport passengers between distinct points.

should such novel, mixed purpose systems be developed in the future. Option A3 however would potentially entail transposition costs; should Option A3 be implemented in isolation, these costs are likely to be significant. However, should Option A3 be implemented in conjunction with other changes (such as alignment of the Cableways Directive with the NLF), only one set of costs would be incurred for all changes and the marginal cost of Option A3 would likely be comparatively smaller.

By contrast, the costs associated with Option A2 would be significantly lower. Taking into account the absence of specific benefits, it can be concluded that the cost-benefit ratio for Option A2 is superior to Option A3. In addition, Option A2 has the added advantage that the Application Guide is a comparatively more flexible instrument when compared to the Directive and can be more easily and more cost-effectively changed to reflect novel designs, should these appear in the future.

5.3.2 Problem Area B: Addressing Confusion over Inclined Lifts and Small Funiculars

Summary of the Aims of Intervention and of the Relevant Policy Options

As noted in Section 4, problems have been experienced in the course of the practical application of provisions regarding inclined lifts and small funiculars. Problems have been noted particularly when effective and formalised communication between public authorities and companies is not established at an early stage of the planning process. For this reason, it appears necessary to examine whether such problems could be avoided in the future by means of improved guidance.

To this end, two policy options are proposed:

- **Option B2:** Providing more extensive guidance in the Application Guide to the Cableways Directive and amending the Application Guide to the Lifts Directive to underscore the importance of companies collaborating with the authorities at an early stage of planning and design; and
- **Option B3:** Amending the Cableways Directive to explicitly exempt inclined lifts from its scope. Article 1(6) of the Cableways Directive would read: *“This Directive shall not apply to: lifts within the meaning of Directive 95/16/EC, including inclined lifts.”*

Additional Information on the Significance of the Problem to be Addressed

It is clear that a number of EU Member States have experienced problems with the implementation of existing provisions on small funiculars and inclined lifts. Examples of such implementation problems are now discussed.

A recent case in the UK involved an installation located at the Blists Hill Open Air Museum. During the design stage, the manufacturer (the British company WGH Ltd.) considered whether the installation should be built according to requirements of the Lifts or the Cableways Directive. It was unclear to the manufacturer which set of

requirements should apply but their preference was for certification in accordance with the lifts legislation. After having taken independent advice and obtaining informal advice from the Health and Safety Executive (HSE is the UK public authority responsible for the implementation of both lifts and cableways legislation), the manufacturer proceeded with the design, manufacture and installation of the equipment in accordance with requirements on lifts. The equipment was approved and CE marked by a notified body based on requirements applicable to lifts.

However, the installation was subsequently suspended from use by the operator following concerns raised by the HSE that it may have been wrongly certified and should in fact have been classified as a cableway. Following discussions between the UK authorities and communication with the European Commission, the authorities decided that this installation falls within the scope of the Cableways Directive. The installation consists of a 40 passenger car travelling on a rail system inclined at 17.5°. The car travels between alighting stations at each end of the incline, with no operating personnel. This resulted in direct costs in the region of €30,000 to €40,000 due to modifications to the lift drive/breaking system and additional safety features added to the track; these costs were paid by the operator. In addition, the WGH Ltd. incurred further costs due to time spent on dealing with this issue, seeking expert opinion, etc. At present, this installation remains unapproved under either the lifts or the cableways legislation and according to the manufacturer, making changes to an installation made to requirements on lifts so that it can be approved as a cableway is impossible (but a compromise between the HSE and the operators allows this particular installation to operate). In addition, the equipment was not in operation between October 2009 and March 2011 and it is assumed that this may have entailed costs to the operator.

When consulted for this study, the UK competent authority stated that there was potential for a similar problem to occur again in the UK. In a recent case, however problems were averted as an economic operator contacted the UK national authority in advance. It was further stated that while it is common for companies in the cableways sector to contact the authorities in advance, this is not the case in the lifts sector.

The Cypriot national authority noted that they are currently dealing with a case where problems have occurred despite the tender specifications for a new installation stating that it should be built in accordance with the Cableways Directive (i.e. as a funicular). However, the main contractor did not relay this requirement correctly to the company, to which the manufacture of the installation has been subcontracted (an Italian manufacturer of lifts). The Cypriot national authority stated that this could have been avoided if the current legislation had not allowed the manufacturer as much space for interpretation as is currently permitted.

Slovakia has also experienced such problems. Based on current definitions it was not possible to clearly determine whether the Cableways or the Lifts Directive should be applicable to a particular installation. As a result the authorities were not able to give a clear reply to the manufacturer and as a consequence the manufacturer faced significant problems when determining the relevant standards that were to apply to

this installation. It is expected that harmonised standard EN 81-22 (currently in draft form) may (in the future) go some way towards dealing with this issue.

Stakeholders also suggested that the current legal set up in the Czech Republic is such that there is a potential for a case to occur of a lift manufacturer not contacting the authorities to discuss whether a certain installation should be built in accordance with the Cableways or the Lifts Directive.

It is also of interest that some Member States have come up with novel solutions to this issue. The Slovenian national authority pointed to an installation in Ljubljana (built in 2006) which is approved both as a funicular under the Cableways Directive and as an inclined lift under the lifts legislation. This allows the installation to be operated either as a cableway or as a lift (the vast majority of the time, it is operated as a cableway). It was further noted that the manufacturer of this installation cooperated with the authorities in the process of assessing under what legislation the planned installation was to be approved.

The complexities of the distinction between inclined lifts and small funiculars are further demonstrated by an example provided by a subsystems manufacturer which stated that in Italy there is an installation that uses both systems in one installation. The Ascensore Castello d'Albertis-Montegalletto, in Liguria, has one section which is a funicular and another which is an inclined lift. The Italian authorities consider this installation an 'integrated horizontal-vertical system' as it runs for 235m close to the horizontal and 69m vertically without the passengers having to disembark or change vehicle. This installation was built prior to the implementation of the Cableways Directive. The whole installation was built in accordance with Italian cableways legislation as this was considered the more stringent legislation at the time. However, it is important to note that the whole installation was not approved under cableways legislation. The funicular section of the installation is approved under cableways legislation as is the zone of the installation in which the vehicle detaches from one system (the cable or the lift traction) and attaches to the other. The inclined lift section of the installation on the other hand is approved under the European Standard EN81-1 for lifts. As a result of the complex and innovative nature of the installation the approval process was both long and complicated.

Several stakeholders have stated that in some Member States, the division of responsibilities is such that different public authorities are responsible for inclined lifts and for funiculars, with the implication being that the manufacturer is required to liaise with several public bodies simultaneously. For example, in Austria, responsibility is divided between the federal government and the Austrian states. Where such division of responsibilities requires coordination between different national bodies, it has been argued that delays may occur which might have negative impacts on the entities commissioning the project and on the companies carrying out the work. According to a cableway manufacturer, in many EU Member States, different public authorities are often responsible for inclined lifts and cableways which may result in them having different opinions on the issue. A notified body noted that due to differences in interpretation between different authorities (this even occurs at the sub-national level where authorities in different federal states of Austria

may come to different conclusions with regard very similar installations), there is no legal certainty; in fact, even individual public authorities may not be consistent in interpreting the existing legislation and changes to the classification of a particular installation during the planning phase have been known to have occurred in the past.

On the other hand, in Sweden, while there is some division of roles between different authorities, due to the concentration of lifts and cableways expertise within the National Board of Housing, Building and Planning, queries are eventually referred to this organisation. There was a case in Sweden where it was unknown whether an installation was going to be an inclined lift or a cableway. In Sweden, it is common for manufacturers to communicate with the authorities, when in doubt. Austria also noted that manufacturers always contact the authorities before they build a new installation.

It is also alleged that the current system has led to the inconsistent application of existing requirements. For example, an Austrian notified body noted that authorities in different Member States interpret existing requirements differently. This appears to be corroborated by a manufacturer that specifically referred to differences in the interpretation of the relevant requirements in Austria, Germany and Switzerland. In addition, it has been alleged that the existing system leads to very similar installations being classified in different ways. For example, two installations in Oberstdorf (Germany) are technically almost identical but one has been approved as an inclined lift and the other as a cableway.

Overall, while the number of cases of confusion over inclined lifts and funiculars may not be very high, problems with the implementation of provisions on inclined lifts and funiculars have been identified by a significant proportion of stakeholders responding to consultation (including national authorities, notified bodies and manufacturers).

Summary of Stakeholder Views

Based on the responses received from the stakeholders who participated in the consultation, Options B2 and B3 are considered to be the most suitable in tackling this problem area.

Policy Option B2 (amending the Application Guide) is considered to be marginally more effective than Option B3 (legislative change). However, stakeholders have highlighted that for Option B2 to be successful, amendments need to be made to the Application Guides of both the Cableways Directive and Lifts Directive. It is believed that this will ensure maximum clarity and minimum confusion for all stakeholders in all Member States as the advice given in both Application Guides would be consistent. It is important to note that stakeholders (particularly competent authorities) were largely divided over whether Option B2 or B3 would be the most effective. While no clear view emerged from national associations of cableway operators that responded to the consultants, FIANET expressed support for Option B2.

Overall, although a number of stakeholders would support the proposed options, where such information has been provided, it appears that it is common practice for manufacturers to discuss this issue with the authorities in the planning stage, although increased awareness of the need for companies to gain formal agreement of the authorities prior to commencing construction might be beneficial. For a significant proportion of stakeholders, however, the proposed options do not address the underlying problem of lack of clarity as to the distinction between inclined lifts and small funiculars. In other words, if clear, unambiguous and readily accessible guidance on this distinction were available, some of the problems experienced could have been averted. In addition, the current situation has the potential to lead to public authorities in different EU Member States coming to different decisions with regard to the legal classification of very similar installations.

Impact on the Internal Market and Competition

For Option B2, some minor impacts can be expected. As noted above, it appears that in most cases companies seek clarification from the authorities as to which of the two Directives applies to each particular case. However, overall, it seems to be more common to do so for companies that are (also) active in the cableways sector than for companies active solely in the lifts sector, which may be characterised by a comparatively lower level of awareness of the need to discuss the particularities of each case with the authorities. Therefore, it can be expected that should this Option contribute to setting lift manufacturers on an equal footing with companies in the cableways sector, positive impacts in terms of improved competition and reduced market segmentation may occur. No impacts are expected from Option B2 with regards decisions of whether a particular installation falls under the Cableways Directive or the Lifts Directive.

No impacts on consumer choice, prices and barriers to entry into the market or emergence of monopolies are anticipated with regard to Option B2.

Generally speaking, Option B3 cannot be expected to have any discernible impacts, positive or negative, as no substantive change would occur. In fact, it is not clear whether this Option would lead to any change as it is possible that Member States may decide not to transpose this change. As Option B3 merely adds a reference to inclined lifts as an example of equipment covered by the Lifts Directive, it is doubtful that the European Commission would be able to force Member States to transpose this change, should they decide not to do so (due to the high cost of transposition), as Member States would not be in breach of the provisions of Directive 2000/9/EC.

Impact on Competitiveness, Trade and Investment Flows

Minimal impacts on competitiveness, trade and investment flows are expected as neither Option is expected to result in substantive changes.

Operating Costs and Conduct of Business/SMEs

As noted above, Option B3 is unlikely to have any discernible impacts while Option B2 may benefit companies that are currently unaware of the need to contact the authorities as early in the planning process as possible. Considering that these options seek to clarify current legislative requirements rather than to modify them, no additional costs can be expected.

According to the UK national authority, should greater clarity be achieved, this would reduce costs incurred by economic operators and public authorities that arise due to misunderstandings and dealing with errors. Should cases such as the one experienced in the UK be avoided, significant additional costs could also be avoided as the operator and the manufacturer in the UK appear to have incurred significant additional costs.

As noted above, benefits from guidance provided under Option B2 are more likely to be accrued by lift manufacturers than cableway manufacturers. An overview of the European lift industry is provided in Box 5.2.

Box 5.2: European Lift Industry

Europe is the leading continent in terms of the number of lifts installed; 56% of the world's lifts are located in Europe compared to 14% in North America and 30% in Asia Pacific (based on 2009 data). European standards for lifts are used widely around the world and more than 85% of lifts and escalators are based on these standards. In 2009, the production value of lifts in Europe amounted to €3.167 billion. The main producing countries are Spain, Germany and France. There are a significant number of SMEs within the lift industry however four main companies dominate the market:

- Otis (US);
- ThyssenKrupp (Germany but owned by Otis);
- Kone (Finland); and
- Schindler (Switzerland).

The major lift manufacturers also manufacture inclined lifts. In addition, Maspero Elevatori SpA (Italy) as well as F Labbeé (France), WGH Ltd (UK) and Hütter Aufzüge (Germany) are smaller companies that are involved in the production of inclined lifts. Those cableways manufacturers who also manufacture inclined lifts are listed below:

- Poma (France) (the Poma subsidiary Skirail is often associated with the manufacture of inclined lifts and small funiculars);
- ABS Transportbahnen, part of the Doppelmayr-Garaventa Group (Austria/Switzerland);
- Leitner (Italy);
- BMF (Switzerland);
- Steurer (Switzerland/Austria);
- Inauen-Schätti (Switzerland);
- MEB Impianti (Italy);
- REAC SA (Spain); and
- Liftbyggarna (Sweden, believed to produce inclined lifts).

As noted previously, the proposed options would not have any impacts on the classification of specific installations. However, should more significant changes to the definitions of inclined lifts be enacted some impacts may occur. Several stakeholders noted that generally it is somewhat more expensive to build an installation as a cableway rather than as an inclined lift. The main cost difference relates to the fact that cableways have higher operating costs than inclined lifts which do not require operating personnel or drivers. The process of approval of an inclined lift is also easier. The implication of this is that from the purely financial perspective entities commissioning (and according to one stakeholder also manufacturing) small funiculars/inclined lifts have a vested interest in advocating the construction of an inclined lift. At the same time, the authorities providing approval for these installations have, according to an Austrian notified body, a vested interest to err on the side of caution and prefer to classify installations as cableways rather than inclined lifts. On the other hand, an SME cableway manufacturer noted that using the Lifts Directive is not always straightforward as it is not geared towards outdoor installations. In the case of outdoor installations that might be affected by weather conditions (snow) it is better to apply the Cableways Directive.

There are large differences in the way components are sourced for inclined lifts and for cableways which may explain some of the price differential. Inclined lifts consist of series-produced components sourced on the open market and even large manufacturers are said to source parts in this manner. This is not the case in the cableways sector.

Administrative Burdens on Businesses

No additional administrative burdens are expected from either Option B2 or B3.

Public Authorities

Similar to Problem Area A, costs of implementation of the policy options would consist of the one-off costs of changing European and national legislation and/or the Application Guides. In general, one-off costs associated with Option B3 are likely to be significantly higher than those associated with Option B2.

As regards running costs for public authorities, should this option lead to a reduction in the workload of public authorities, cost savings can be expected to occur. The additional costs of handling a case where a public authority has to deal with incorrect classification of an installation have been estimated by one of the respondents at one week's worth of personnel costs, amounting to approximately €5,000.

The German authorities expect increased administrative burden from Option B2 (associated with providing advice).

Innovation and Research

As these options do not implement any substantive changes to the classification of specific installations or to requirements placed on these installations, no impacts on innovation and research are expected.

Consumers and Households

No impacts are expected to consumers and households as no substantive change is being enacted. However, substantive changes would have large impacts as the requirements to have operating personnel may render some installations currently certified as inclined lifts unaffordable.

Specific Regions and Sectors

Impacts are likely to differ between Member States as benefits are more likely to be accrued in those Member States where cableways and lifts manufacturers are located and/or where funiculars and/or inclined lifts are more frequently constructed.

Public Health and Safety

No impacts are expected as no substantive change is being enacted. However, should substantive changes be enacted, it is not clear whether this would have an impact on passenger safety.

According to the UK authorities (the HSE), the essential requirements under the Cableways Directive better cater to the environmental conditions that may compromise the safety of the passenger / operators using or working on outdoor installations. More specifically, it was stated that there are specific hazards associated with operating installations in an open environment exposed to external factors such as meteorological conditions, terrain features, and other external activities, including the following:

- weather conditions;
- lightning strikes;
- rain, snow and ice; and
- accelerated corrosion effects.

In addition, it was also stated that there is an increased risk of people gaining access to the running track of such installations where protection is not easily provided, as would be the case with lift shafts or partitioning of the running track of lifts within a building or construction. According to the HSE, the essential health and safety requirements of the Cableways Directive address these and other hazards associated with such installations operating in open environments.

Similar concerns were expressed by a cableways manufacturer who stated that inclined lifts are certified according to legislation which is primarily intended for

indoor installations, while inclined lifts tend to operate outdoors. In addition, cableways require a detailed evacuation plan which is not the case with inclined lifts. Another cableway manufacturer noted that cableways might be safer than inclined lifts as cableways are designed for higher passenger numbers. In particular, inclined lifts are designed for between four and ten people and funiculars for between 50 and 100 people; therefore safety requirements are more stringent.

Other stakeholders, such as the Austrian national authority, two notified bodies and two cableway manufacturers argued that there is no difference in the level of passenger safety between funiculars and inclined lifts. The German authorities expect no safety benefits from Option B2 but expect benefits from introducing a legally binding and unambiguous definition of the term inclined lift.

Conclusion

Generally speaking, Option B3 cannot be expected to have any discernible impacts as it is unlikely to affect current practices; minor changes to the Cableways Directive (as opposed to the Lifts Directive and its Application Guide) cannot be seen as addressing this issue. In addition, as Option B3 does not amount to a substantive change but merely restates what is already stated in the Directive, it cannot be ruled out that EU Member States would (in the absence of other changes to the text of the Directive) not transpose such change. On the other hand, if Option B3 were transposed into national legislation in isolation from other changes, given the absence of clear benefits, the cost-benefit ratio would be highly unfavourable.

On the other hand, Option B2 can be expected to have a positive impact (primarily on companies in the lifts sector) associated with increased awareness of the need to obtain formal classification from the authorities at early stage of planning and development. The costs associated with this Option can also be expected to be low/moderate and would arise in the course of changing Application Guides to the Lifts and Cableways Directives.

Among many consultees, there appears to be a sense that Options B2 and B3 do not go far enough in addressing the underlying problem of confusion about whether a particular installation is to be classified as an inclined lift or a cableway. In addition, some companies may see it as unnecessarily burdensome that they have to liaise with several public authorities simultaneously and do not have the possibility of turning to a single point of contact for manufacturers on inclined lifts and cableways.

5.3.3 Problem Area C: Clarifying/amending the Definition of Safety Components, Subsystems and Infrastructure

Summary of the Aims of Intervention and of the Relevant Policy Options

According to the EC Review of the Directive (EC, 2011), experiences from the first years of application of the Directive show that the distinction, in particular between safety components and subsystems, and between subsystems and infrastructure, is not always very clear.

To this end, the following policy options are proposed:

- Option C2: Clarifying the distinction between these terms in the Application Guide, for example, by introducing a non-exhaustive list of safety components; and
- Option C3: More explicitly exclude series-produced components from the definition of infrastructure and either:
 - Sub-option C3A: introduce a non-exhaustive list of safety components; or
 - Sub-option C3B: define sub-systems.

Please note that there are differences between Options C2 and C3, other than that whether they implement changes by means of soft or hard law. Option C2 reflects the fact that the Application Guide to the Cableways Directive already includes some of the relevant provisions, such as additional explanations about the boundary between infrastructure and the rest of the installation and a definition of subsystems.

Additional Information on the Significance of the Problem to be Addressed

While some stakeholders recognised the existence of problems with these definitions, it should be noted that the extent of these problems may depend on individual stakeholder experiences, the reference time period and the Member State in which the stakeholder is located.

As noted in Table 4.4 and Table 4.5 and further corroborated by the second round of consultation, there is a certain proportion of stakeholders that have experienced problems while other stakeholders believe that the current situation is clear enough.

Examples of problems include Slovakia stating that they experienced problems with regards carrying out conformity assessments of subsystems, determining the boundaries between infrastructure and subsystems, and determining which products are safety components. In addition, a Czech stakeholder stated that the status quo causes problems for notified bodies with regard to subsystems and safety components and the boundary between infrastructure and other parts is not clearly set. This results in different interpretations and it is suspected this may be impacting safety; although no specific examples have been provided. During a joint interview with the Czech national authority and the Czech Cableways Operators Association, it was highlighted that these terms are not even clear to the manufacturers. A Swiss cableway manufacturer also identified differences in interpretation between Member States (e.g. FR and AT) but this is not seen as a problem.

Generally speaking, it is possible that these problems have been becoming smaller over time and in some Member States problems were experienced shortly after the entry of the Directive into force. But over time procedures and processes have been established to deal with them and/or more experience with these issues has been gathered. For example, three manufacturers (of cableways and subsystems) have noted that while problems have been experienced in the past, solution-oriented approaches/simple rules have been developed that have resulted in these problems disappearing. In addition, it was stated that in Austria there is an informal list of

safety components (i.e. a list that is not legally binding) and this appears to be working well as there have been no major discussions/disagreements on this issue in the past two to three years. A similar point was also made by a notified body.

In addition, it is possible that some of these problems may have been caused by insufficient expertise and experience in some Member States, thus suggesting that solutions based on guidance may be sufficient in assisting stakeholders in these Member States. The Slovenian national authority noted that for people with sufficient expertise in the cableways sector these issues do not pose problems but could be a problem for authorities which do not have a lot of experience. However, the Slovenian national authority also noted that the explanations given in the Application Guide are not always unambiguous. Similarly, an Austrian notified body stated that these definitions are clear to all notified bodies that are active with regard to assessing cableway products (as opposed to bodies which hold a valid notification for the Cableways Directive but rarely approve any products).

Summary of Stakeholder Views

As noted in Table 4.4, in the first round of consultation most national authorities (15 of 22) and notified bodies (3 of 5) that responded to consultation agreed that it is necessary to introduce a non-exhaustive list of safety components in the Directive in order to clarify the differences between safety components and subsystems.

However, from the second round of consultation it is evident that stakeholders hold a wide variety of views on how problems with the relevant terms could be solved. Importantly, the wide variety of views does not make it possible to identify one option that would be preferred by all stakeholders. However, the following general observations can be made on the basis of the information provided:

- all but one competent authority that expressed an opinion (12 of 13) would support some kind of change (either under Option C2 or C3); and
- a number of stakeholders, in particular cableway manufacturers, fear that Option C3A (inclusion of a non-exhaustive list of safety components in the Directive) may limit manufacturers' flexibility. Several manufacturers are also opposed to Option C3 in general.

As regards competent authorities, notified bodies and manufacturers, those stakeholders that expressed support for Option C2 do so because it permits the creation of a non-exhaustive list which could be updated and amended when necessary in the Application Guide. Also, Option C2 is preferred by some stakeholders because Option C3 (particularly Option C3A) is thought to be too rigid, prescriptive and inflexible. Some respondents also consider that Option C3 is not feasible, would be counterproductive and would limit the flexibility, innovation and research and development activities of manufacturers. However, those respondents who support Option C3 do so because it is a more sensible approach from a regulatory viewpoint which would ensure that all explanations are located within one document which would avoid the potential for confusion. Furthermore, there are some

respondents who consider that both Options C2 and C3 could be harmful and that neither would have any beneficial impacts for the industry. This is because the current regulations are considered sufficient and because the authorities are not aware of any issues with regards to this specific problem area.

In addition, the majority of cableways operators associations consulted (Austria, Germany, Finland, France and Slovenia) do not believe that there is any lack of clarity between subsystems, safety components or infrastructure. FIANET also expressed preference for Option C1; if policy action were to be taken then Option C2 would be more acceptable.³⁴ Only Switzerland indicated that there may be issues with clarity between subsystems and infrastructure. Furthermore, none of the operators associations consulted believed that it was necessary to introduce a non-exhaustive list of safety components.

Impact on the Internal Market and Competition

A cableways manufacturer suggested that it is possible that Option C3A may distort competition if companies wish to gain competitive advantage by means of presenting, when in contact with potential customers, the non-exhaustive list as exhaustive.

If these options were to lead to reduced flexibility for manufacturers, this may result in reduction of consumer choice.

There is currently no strong evidence that the proposed options would result in higher prices due to less competition, the creation of barriers for new suppliers, the emergence of monopolies or market segmentation.

Impact on Competitiveness, Trade and Investment Flows

Should manufacturers' flexibility be impacted and should this restrict manufacturers' freedom in developing new technical solutions, it is possible that the global competitive position of EU companies may be impacted.

Operating Costs and Conduct of Business/SMEs

The impacts of introducing a non-exhaustive list of safety components are difficult to estimate but it can be expected that this would weaken the current system which is based on safety analysis, thus amounting to automatic designation of certain products as safety components. This may have negative cost impacts, as the cost of bringing a product to the market as a safety component is higher than the cost of bringing an identical product to the market as a subsystem. In this respect, it is also possible that cableway operators may put pressure on cableway manufacturers so that products that are not on the list of safety components are certified as subsystems (rather than safety components), thus reducing the cost of the installation.

³⁴ Please note that a FIANET response to the consultation exercise undertaken by the European Commission in 2010 also highlighted the need to better define the term 'infrastructure'.

A cableway manufacturer stated that even where a change is intended to clarify the current situation, it may lead to changes in current practices and as such may have an impact on manufacturers. The manufacturer thus anticipates medium-strength impacts from clarifications with regard to the distinction between infrastructure and subsystems/safety components. In this respect, it is of interest that it is cheaper and easier to approve infrastructure (which falls within the competence of EU Member States) than subsystems. It is more burdensome to approve a subsystem as infrastructure checks may be performed by means of calculations while for subsystems there are extensive requirements on the type of supporting documents to be provided. The cost of having subsystems approved is approximately double that of having a similar component approved as infrastructure. However, for subsystems, a one-off cost which is incurred regardless of how many installations the subsystem is used in, but for infrastructure, the cost may be incurred more than once.

Two manufacturers (of cableways and ropes) also pointed to the possibility that the implementation of either Options C2 or C3 would increase costs due to the need to change their operating procedures. The rope manufacturer believes these changes would be significant and stated that the previous audit by the notified body (to comply with the current legislation) was extremely costly for the company and they would not want to have to occur such an expense again.

No additional costs for notified bodies have been identified.

Administrative Burdens on Businesses

Changes would require that companies familiarise themselves with the new requirements and adapt their procedures. It was noted that large companies have dedicated members of staff for compliance issues while small companies have to devote a portion of their normal working time to these activities (which do not generate any revenue). In the context of an SME, these costs could be significant; the Director of an SME cableway manufacturer noted that during the period when the Directive was initially implemented, he used to spend one working day every week on familiarising himself with the new requirements.

The time required to familiarise themselves with the new obligations would depend on the exact changes to be implemented. However, as these options rather seek to clarify the existing requirements rather than implement new ones, it is assumed that these costs would be of substantially lower order of magnitude than those incurred during the initial implementation of the Cableways Directive.

Public Authorities

Public authorities would incur costs of transposing any changes implemented under Option C3 but may subsequently accrue cost savings due to avoiding problems of interpretation of the relevant terms. The German authorities expect increased administrative burden from Options C2 and C3 associated with providing advice.

Innovation and Research

The Slovenian national authority noted that Option C3 may turn out to be too prescriptive and could potentially hinder research and development of new products. From this perspective, it was further argued that negative impacts on research and development could be avoided under Option C2. The French notified body/public authority stated that an indicative list of safety components would be useful but a prescriptive list would harm innovation.

Consumers and Households

As noted above, a cableway manufacturer expressed the opinion that even clarifications may lead to substantive changes in the classification of certain cableway parts. In this respect, it is of note that safety components appear to be more expensive than subsystems (all other things being equal).

Specific Regions and Sectors

Impacts are likely to differ between countries due to differences in the size of the cableways sector as well as due to the possibility (as suggested above) that bigger problems with applying the Directive may be experienced in countries which possess comparatively smaller expertise and experience with cableways.

Public Health and Safety

With the exception of a Czech notified body which stated that problems with interpretation of the relevant terms lead to safety issues, no other stakeholder has identified specific impacts on passenger safety. Most stakeholders appear to believe that the policy options across most/all problem areas would have no impacts on passenger safety. With specific regard to Problem Area C, a rope manufacturer stated that they do not believe that changing the current system would make their products any safer.

Conclusion

While many national authorities that provided input into the second round of consultation support some kind of policy action, stakeholders have provided a wealth of information on the risks associated with the specific policy options. By means of example, Option C3A (non-exhaustive list of safety components) is associated with a number of potential problems, including the possibility that it might be presented by some not as a list of examples but as a definitive, EU- approved, list. In addition, this Option would not address problems associated with those product types which can be both safety components and subsystems (no specific examples have been provided by consultees). Also, although intended as indicative, if treated as prescriptive, this Option might hinder innovation.

In conclusion, it is clear that some stakeholders have faced problems when interpreting these terms. However, the impacts of these options would differ

significantly between Member States, with no clear picture emerging at the EU level. Given the potential risks associated with Option C3, it is proposed to further consider implementing Option C2.

5.3.4 Problem Area D: Changing Conformity Assessment of Subsystems

Summary of the Aims of Intervention and of the Relevant Policy Options

As regards the conformity evaluation procedure of the **subsystems**, Annex VII of the Cableways Directive does not provide a specific conformity assessment module for the conformity evaluation of subsystems. The Cableways Directive requires notified bodies to check subsystems but does not give any indication on how they should do it. It is suggested that this situation has led to divergent interpretations and implementation of the conformity evaluation of the subsystems. For this reason, the introduction of a conformity assessment module specifically conceived for the subsystems is worthy of consideration.

To this end, the following policy options are considered:

- Option D2: Amending the Application Guide to recommend using specific conformity assessment modules for the assessment of subsystems; and
- Option D3: Amending Annex VII to the Cableways Directive to allow the use of specific conformity assessment modules for the assessment of subsystems.

Additional Information on the Significance of the Problem to be Addressed

Based on consultation, it appears that the current Directive may be interpreted by some stakeholders to mean that notified bodies have to perform an *on-site* check of how subsystems have been assembled and incorporated into the installation. This appears to relate to Article 2 in Annex VII (Subsystems: Assessment of Conformity) of the Directive. Article 2 reads as follows:

“The examination of the subsystem is carried out at each of the following stages:

- *design,*
- *construction and acceptance trials once the subsystem has been completed.”*

In this respect it is of interest that a cableways manufacturer noted that most subsystems are assembled on-site. However, it has been noted that it is not feasible for notified bodies that approve subsystems, which are used in a large number of installations, to carry out on-site inspections for each installation that includes the relevant subsystem. Therefore, it has been alleged that in practice on-site inspections are not carried out. Instead, subsystems are widely assessed by means of conformity assessment modules that do not require an on-site inspection.

Information provided by consultation thus supports the contention that the legal requirements and practices for the conformity assessment of subsystems may be interpreted in different ways by different stakeholders.

Summary of Stakeholder Views

Broadly speaking, most stakeholders who provided responses to the consultation have expressed support for the proposed change.

Based on the responses gathered from competent authorities, notified bodies and cableway manufacturers, it is suggested that the majority of stakeholders favour the implementation of Option D3 as this is legally binding and is the most logical option from a regulatory standpoint. Option D3 is also considered to provide legal clarity and the harmonisation of practices. However, it is important to note that Option D3 is the preferred Option based on the stakeholders consulted; many of whom also state that their experience in this area is limited. Furthermore, some stakeholders also state the policy change in this area is not considered to be necessary but would support Option D3 because it is binding for all Member States, ensuring a uniform approach from all EU member countries. It is important to note that support for Option D3 was achieved across the different stakeholder groups consulted (competent authorities, notified bodies and manufacturers).

In addition, the Czech cableway operators association stated that they would welcome clarity in this regard. Only two cableways operator associations (Austria and Finland) stated that there is no need to enable the use of conformity assessment modules for the assessment of subsystems. The remaining cableways operators (Switzerland, Germany, France and Slovenia) do not have an opinion on this issue. FIANET pointed to potential costs arising from any change to the current regime but also to the need for a simple and unified approach (possibly consisting of one module only), thus expressing some support for policy action (in particular for Option D2).

Impact on the Internal Market and Competition

It appears that the proposed options would have benefits in terms of harmonising legal requirements on the conformity assessment of subsystems. However, there are indications that modules are already widely used for conformity assessment of subsystems and as such no significant change is expected to occur as a result of Options D2 or D3. Overall, Option D2, due to its non-binding nature is seen as not addressing the problem of the disparity between legal requirements and practice.

Overall, no significant impacts on consumer choice, prices, competition, barriers to entry, monopolies or market segmentation are expected.

Impact on Competitiveness, Trade and Investment Flows

Legal certainty would be achieved which can be expected to have a positive impact on notified bodies in the sector as well as on trade with subsystems.

Operating Costs and Conduct of Business/SMEs

As modules already appear to be widely used, there would be no significant impacts on companies' operating costs from Options D2 and D3. The cost structure is also not

expected to change as Module H is, in practice, already used by those notified bodies which account for 90% of the notification market (by turnover). Therefore there would be no impact on the cost structure of most notified bodies and manufacturers.

However, one cableway manufacturer identified large potential negative cost impacts from Options D1 and D2 (i.e. if Option D3 is not implemented and the disparity between legal requirements and practice is not addressed). These negative cost impacts would be experienced if certain EU Member States insist that notified bodies carry out on-site inspections on each subsystem that has been incorporated into an installation.

Consultation suggests that the cost of conformity assessment varies depending on the number of constituent safety components and whether they have already undergone conformity assessment. As a broad estimate (based on information provided by cableway manufacturers), the cost of a conformity assessment of a subsystem ranges from a €5,000 to €20,000. A somewhat lower estimate has been provided by the French notified body STRMTG, which stated that the cost varies with the size of the installation and the innovation that is embedded in it. However, it can be estimated that the cost ranges from €1,000 to €3,000 (excl. VAT). Should an on-site inspection of the way each subsystem has been incorporated into an installation be carried out, one stakeholder estimated that these costs would increase to around €50,000 to €80,000. While it has not been possible to reliably verify this estimate, it is clear that costs would increase should the requirement to conduct an on-site inspection be enforced.

The above-described impacts that could possibly occur under the baseline scenario (i.e. should certain Member States decide that they wish to enforce the interpretation of Annex VII that obliges notified bodies to carry out on-site inspections) might have a large impact on SME cableway and subsystem manufacturers. An SME cableway manufacturer noted that they certify less than ten subsystems each year. Applying this to the estimates of the cost of conformity assessment provided above, suggests a possible increase in annual certification costs from €50,000 to €200,000 and from €500,000 to €800,000. These potential costs would be avoided under Option D3.

Unrelated to the above, in order to avoid increasing cost burden for SMEs, it was proposed that Option D3 ensures that it is not only Module H but also Module G (unit verification) that is allowed (which is already the case as the options considered here do not prescribe a single conformity assessment module). This would allow SMEs to certify bespoke subsystems without significant additional burden.

Administrative Burdens on Businesses

No conclusive information has been received on administrative burdens on businesses with cableway manufactures disagreeing whether Options D2 and D3 would lead to an increase or decrease in administrative costs. It can therefore be expected that impacts would differ from manufacturer to manufacturer. Overall, however, the total impacts on the sector are likely to be small.

Public Authorities

No significant impacts on public authorities are expected, although the German authorities expect increased administrative burden from Options D2 and D3, associated with providing advice.

Innovation and Research

No significant impacts on innovation and research are expected.

Consumers and Households

No impacts on consumers and households have been identified.

Specific Regions and Sectors

These Options would have larger impacts in countries where the current legal requirements may be interpreted as requiring on-site inspections, while in countries where no such requirement appears to be in force (e.g. in France) the impacts would be comparatively smaller.

Public Health and Safety

The Belgian competent authority identified potential benefits but as no specific problems have been identified, it is not expected that these benefits would be significant.

Conclusion

The consultation conducted for this study has confirmed problems with lack of clarity as regards existing requirements. However, it has been suggested that notified bodies which account for 90% of the notification market already use assessment modules, suggesting that the impacts of Options D2 and D3 would likely be limited. Inspections may be required by legislation as subsystems are already assessed by means of conformity assessment modules some of which do not require on-site inspections. Therefore, the main impact of the proposed Options would arise in relation to eliminating disparities in legal interpretation and the lack of legal clarity. In this respect, however, Option D2 is not seen as effective in reducing legal uncertainty and Option D3 is seen as preferable.

5.3.5 Problem Area E: Alignment with the NLF: Obligations of Economic Operators

Summary of the Aims of Intervention and of the Relevant Policy Options

The Cableways Directive is to be aligned with the obligations of economic operators given in the NLF. To this end, the following policy options are considered:

- Option E2: Including a description of requirements on economic operators as given in Articles R2 to R7 of the NLF Decision (Decision 768/2008/EC) into the Application Guide; and
- Option E3: Amending the Cableways Directive in accordance with Articles R2 to R7 of the NLF Decision.

Articles R2 to R7 of the NLF Decision define specific obligations of manufacturers, importers, authorised representatives and distributors. These NLF provisions are reviewed and compared with the Cableways Directive in Annex II to this report. By means of summary, the main difference between the Cableways Directive and the NLF appears to be that the Cableways Directive currently does not provide specific guidance with regards to the roles and responsibilities of importers and distributors. The Cableways Directive states that where “*obligations are not fulfilled by the manufacturer, they are to be fulfilled by the company that places the product on the market*”, thus effectively obliging importers and distributors to ensure compliance with the relevant requirements where this is not done by the manufacturer or its authorised representative. The NLF thus provides greater transparency as regards obligations of importers and distributors (as well as other economic operators) making it more likely that all economic operators are aware of their specific responsibilities. There are specific paragraphs within Articles R2 to R7 of the NLF Decision which can be considered as being significantly different to the current cableways framework but for which exemption could be considered for the cableways sector. For example, Article R2, Paragraph 4, states that “*...manufacturers shall, to protect the health and safety of consumers, carry out sample testing of marketed products*”. Although this could be seen as being different to the existing Directive, it is not feasible for the cableways sector. Consequently, an exemption could be considered. Exemption from Paragraph 6 of Article R4 (which requires importers to conduct sample testing) may also be useful for importers for the same reasons.

This is also the case in Paragraph 7 of Article R2 and Paragraph 4 of Article R4 which require manufacturers and importers to “*...ensure that the product is accompanied by instructions and safety information in a language which can be easily understood by the consumers and other end-users*”. Such a requirement may go beyond the Cableways Directive; however, an exemption could be considered as instructions and safety information are most often required by installers and operators within the cableways sector and rarely (if ever) by consumers.

Additional Information on the Significance of the Problem to be Addressed

The key questions with regard to the impacts of Options E2 and E3 are as follows:

- Is the cableways sector characterised by a lack of transparency meaning: compliance with the relevant legislation is not ensured, it is difficult to determine who should be responsible for ensuring compliance, and it is difficult to trace the origin of the relevant products?
- Are there significant imports of cableway products into the EU requiring the responsibilities of importers and distributors to be defined more succinctly?

With regard to the above questions, the European cableways sector consists of a relatively small number of producers of whole installations (around 35) and a somewhat larger number of producers of subsystems and safety components (this study has identified at least 85 such companies). Generally speaking, stakeholders believe that the sector is small, transparent and stakeholders are familiar with each other. As a result, it is suggested that there are no problems with regard to product traceability or with companies attempting to avoid their obligations; in fact it was noted that manufacturers are keen to ensure compliance with the relevant safety requirements as an accident involving their installation would have grave reputational consequences and may force the company out of business. In addition, as noted in Section 2 of this report, imports of cableways into the EEA are essentially non-existent, perhaps with the exception of those from Switzerland; however, Swiss companies are subject to the same requirements domestically and do not circumvent the Cableways Directive in any way. As regards subsystem and safety components, there is no evidence of significant imports from outside of Europe (in fact, several stakeholders noted they were not aware of any such imports). It appears that ropes are an exception to this, although a major rope manufacturer did not agree with this statement and stated that there are no imports from outside the EU and the cableway rope market has been traditionally national rather than international.

Two stakeholders (a rope manufacturer and a notified body) noted that there are imports of cableway ropes from outside of the EU. The rope manufacturer stated that there might be ten to twenty companies in the EU which import ropes which are produced outside Europe into the EU and sell these on to hundreds of other companies. This manufacturer has pointed to possible compliance issues with rope imports from Asia and identified potential benefits from defining the specific obligations of importers and distributors. Stakeholders in the Czech Republic also suggested that imports of ropes from Asia and Russia are a serious problem and while the main problem appears to be enforcement, amendment of the Cableways Directive is supported.

While there currently do not appear to be imports of whole cableway installations into Europe, a cableway manufacturer noted that it is possible that such imports may commence in the future. In particular, there is already a nascent cableway industry in China and it is possible that in the future they may wish to start exporting to Europe. In fact, there have been cases of installations in China which were copies of installations manufactured by one European producer and which were labelled as a product of this manufacturer. These installations have been involved with accidents leading the Chinese authorities to approach this European manufacturer. It is

expected that alignment with the NLF may ensure greater transparency as importers and distributors (as well as other economic operators) will be aware of the specific role and responsibilities of both importers and distributors. More importantly, under the NLF, importers and distributors are obliged to ensure that the product they are marketing is suitable for the market, verify that the product has the required safety markings and accompanying documentation, and is in conformity with the Community harmonisation legislation.

Summary of Stakeholder Views

Most stakeholders that have responded to the second round of consultation would support alignment of the Cableways Directive with the NLF (in particular through Option E3). This is in line with the results of the first round of consultation where 92% of responding national authorities and 75% of responding notified bodies identified likely benefits clarifying the roles and responsibilities of economic operators in line with the NLF (see Table 4.11 in Section 4). Those competent authorities and notified bodies that support Option E3 consider it to be beneficial from a regulatory standpoint and because it allows a uniform approach to be adopted for a number of Directives and sectors. This is particularly beneficial for those Member States authorities where one department is responsible for a number of Directives. However, one competent authority and one notified body do not believe there is any need to align the Cableways Directive with the NLF as it is a very specific sector which is transparent. Furthermore, one competent authority emphasised the importance of not applying a carbon copy of the NLF to the Cableways Directive but to consider the particularities and nuances of the cableways sector.

However, not all stakeholder groups consulted have expressed support for Option E3. Most cableways manufacturers who expressed an opinion see the current Directive as sufficient and therefore do not consider there to be any need to align it with the NLF.

In general, cableways operators associations do not have an opinion on the alignment of the Directive with the NLF and the obligations of economic operators. Only the Finnish cableway operator's association believe that there is likely to be any particular benefits from clarifying the roles and responsibilities of economic operators in accordance with the NLF.

Impact on the Internal Market and Competition

Options E2 and E3 are unlikely to lead to any significant impacts with regard to consumer choice, prices, barriers to new suppliers, emergence of monopolies or market segmentation. Option E3 in particular can be expected to contribute to reducing or preventing operators that market non-compliant products (e.g. ropes) from gaining an unfair advantage. Option E3 can be considered to contribute to ensuring a level playing field for all operators.

Impact on Competitiveness, Trade and Investment Flows

By reducing the likelihood that non-compliant ropes are imported into the EU, Option E2 and in particular Option E3 can be expected to improve the competitive position of EU rope manufacturers. No impacts on productivity are expected to occur.

Operating Costs and Conduct of Business/SMEs

Option E2 and in particular Option E3 are likely to impose some additional costs on importers and distributors. These are linked to both checking compliance as well as record keeping requirements (although it is assumed that these activities might already be routinely carried out under the baseline scenario). However, these costs are likely to be relatively small, because the numbers of products for which compliance would have to be checked and records kept is assumed to be relatively small (due to the small size of the sector, each importer and distributor is expected to sell only a very small number of products each year).

In addition, the UK national authority identified cost savings from alignment with the NLF associated with avoided error and misunderstandings due to greater clarity on operators' obligations, in particular when dealing with imported products.

Administrative Burdens on Businesses

No significant additional burden is expected.

Public Authorities

National authorities in Liechtenstein and Denmark noted that alignment with the NLF would have the advantage of aligning the requirements applicable in the cableways sector with those in other sectors thus reducing the administrative burden on a public authority in a small country with a small cableways sector. Based on the study team's assessment of the cableways sector in individual European countries, it is estimated that these benefits may arise in approximately one-third of EU/EEA states.

Innovation and Research

No impacts on research and innovation are expected.

Consumers and Households

No impacts on prices paid by cableways users are anticipated.

Specific Regions and Sectors

Impacts are likely to differ between Member States as some countries have manufacturers of cableways, subsystems and safety components and/or a large demand for cableways while other countries do not. However, as noted above, aligning requirements applicable in the cableways sector with those in other sectors

may reduce costs for public authorities in countries that do not have manufacturers of cableways, subsystems and safety components nor a large demand for cableway installations.

Public Health and Safety

The Belgian national authority pointed to potential benefits from Option E3 as this is said to lead to an improved understanding of the law; this, however, appears to be a rather general point that is not linked to any specific problems. A rope manufacturer stated that even where non-compliant ropes are present on the market; these do not pose a danger to passenger safety but rather affect the product's longevity. Germany expects Option E3 to be highly effective with regard to passenger safety (Option E2 is seen as ineffective).

Options E2 and E3 may not deliver significant immediate benefits with regard to passenger safety (for the simple reason that no specific problems have been identified) but it is possible that they may prevent problems in the future should the cableway market become more international and should non-European companies start supplying cableways into the EU.

Conclusions

The cableways sector is said to be transparent with no evidence of attempts to place non-compliant products on the market and no or limited imports, perhaps with the exception of cableway ropes where one stakeholder alleged the possibility that non-compliant products are imported from outside of the EU. Options E2 and E3 might contribute to reducing or preventing sales of non-compliant products and provide administrative savings for Member States where the approach to cableways could be harmonised with approaches to other sectors. There is no specific evidence of impacts on passenger safety.

Based on stakeholder preferences expressed during the second round of consultation and the fact that Option E2 is not legally binding and may not be as effective in dealing with non-compliant products as Option E3, Option E3 appears to be preferable to Option E2.

5.3.6 Problem Area F: Alignment with the NLF: Criteria for Notified Bodies

Summary of the Aims of Intervention and of the Relevant Policy Options

The Cableways Directive is to be aligned with provisions on notified bodies given in the NLF. To this end, the following policy options are considered:

- Option F2: Including a description of requirements on notified bodies, as given in the NLF Decision, into the Application Guide, e.g. reinforcing information and other obligations on notified bodies and the procedure for their notification (Articles R23, R26 and R28 in the NLF Decision); and

- Option F3: Amending Article 16 of the Cableways Directive as well as Annex VIII in accordance with the NLF Decision, including revising the procedure for notification of notified bodies and reinforcing information and other obligations on notified bodies.

With regards Problem Area F and the criteria for notified bodies, it is anticipated that the most important articles of the NLF Decision are Articles R23, R26 and R28. This would include revising the procedure for the notification of notified bodies and reinforcing the information and other obligations of notified bodies. By aligning the Cableways Directive with the NLF, Member States will have the power to object to the notification of a new notified body (within a set time period) and the Commission will be able to challenge the competence of notified bodies. Furthermore, alignment with the NLF will encourage cooperation between notified bodies. In particular, notified bodies will be required to inform each other about certification and rejections of approvals. This is already done voluntarily by some notified bodies; however there are others that do not report. Other Articles of the NLF Decision which concern the criteria for notified bodies are also important; however these will complement the existing framework rather than introduce any significant changes. Furthermore, Article R21 regarding the accredited in-house bodies may add value to the Cableways Directive; however, exemption from this Article could be considered due to the nature of the cableways sector.

Additional Information on the Significance of the Problem to be Addressed

There is a general feeling on the part of many consultees that there are large differences between the expertise and experience of different notified bodies; however, there is no evidence suggesting that this has resulted in the placing on the market of dangerous products.

Differences in the level of experience and expertise of notified bodies can be linked to the degree of activity of these bodies. Not all notified bodies are active with regard to cableways products. There are currently 23 notified bodies with a valid notification for the Cableways Directive. Of these, approximately 10 to 15 participate in regular meetings of the Cableway Installations Sectoral Group of Notified Bodies. It has been estimated by one notified body that only seven or eight notified bodies assess more than a few subsystems/safety components each year, with the remainder only being involved in assessing cableways products on an occasional basis. Another notified body stated that less than ten notified bodies are actually active in relation to the Cableways Directive. As a result of this there may be notified bodies with insufficient experience and expertise but there is no evidence that this results in dangerous products being placed on the market. One of the reasons for this may be that insufficient experience is a result of inactivity, i.e. no products are certified by these notified bodies. It is the consultants' impression that the sector is not very flexible; companies have long-standing relationships with certain notified bodies and they are reluctant to "test" notified bodies they do not know. An SME manufacturer also mentioned that while they normally use a single notified body, when they decided to use another notified body, the manufacturer asked them to follow the same procedures as their usual notified body and the new notified body obliged.

There is currently a voluntary reporting scheme which involves notified bodies sharing information on cableways products approved each year (reporting year end in March). While the majority of notified bodies (including those which collectively assess the vast majority of subsystems/safety components brought to the market) appear to participate in the reporting system, there are several notified bodies that do not provide information on the numbers of products approved (it has been argued that the reporting system captures approximately 90% of approvals). While it is impossible to determine whether some notified bodies do not report because they do not approve any products under the Cableways Directive or whether they have other reasons for not reporting, it is clear that Option F3 would improve the reporting system by making participation compulsory. The French notified body, the Service Technique des Remontées Mécaniques et des Transports Guidés (STRMTG) publishes the details of the products approved under the Directive on its internet site; this includes information on the nature of the product, date of approval as well as the name of the manufacturer.

Comparative differences between notified bodies with regard to experience in approving cableways subsystems/safety components has not led to significant problems (although some doubt has been raised in relation to a case where a product was allegedly certified rather quickly). It was argued by an Austrian notified body that manufacturers are aware of which notified bodies are more or less active in relation to the Cableways Directive and tend to opt for those notified bodies which are known to be highly active with regard to the Cableways Directive and which are deemed to possess the required technical expertise. In this sense, it was argued, the market favours those notified bodies which have amassed sufficient expertise and does not provide the opportunity for notified bodies with lesser experience in the cableways sector to approve a large number of products. Language capabilities appear to be a significant criterion for manufacturers choosing specific notified bodies, thus leading to manufacturers using notified bodies in countries where the same language is spoken.

A cableway manufacturer states that they use four notified bodies; this is due to the limited capacity of each of them. Selection criteria include specific expertise (by means of example, it was noted that only one notified body has experience with specific electronic components), geographical proximity (this might be an advantage due to frequent travel) and language capabilities.

From the consultation responses received from a variety of stakeholders, it is clear that most stakeholders are in favour of alignment with the NLF. Option F3 is preferred because it is the most sensible approach from a regulatory standpoint and is binding for all notified bodies. Option F3 would also ensure that there are equal requirements (and equally stringent requirements) for all notified bodies regardless of the Member State in which they are operating, which is considered necessary by notified bodies themselves. Furthermore, according to the respondents, Option F3 would improve the system of information exchange which already exists in the industry by forcing those who do not share information to do so. Importantly, only one competent authority stated that alignment with the NLF would be costly for all stakeholders involved within the Member State.

However, there is no consensus from national cableways operators associations with regards alignment with the NLF from the perspective of criteria for notified bodies. However, FIANET noted that the quality and performance of notified bodies is not the same across Europe and as such measures that contribute to achieving an equal standard of service provided by notified bodies would be welcome.

Impact on the Internal Market and Competition

Options F2 and F3 are not likely to have significant impacts in terms of the choice of notified bodies available to manufacturers, price paid for conformity assessment, emergence of monopolies and market segmentation.

Impact on Competitiveness, Trade and Investment Flows

These options are unlikely to affect the global competitive position of EU firms or impact on their productivity.

Operating Costs and Conduct of Business/SMEs

With regard to the powers of the European Commission to challenge the competence of notified bodies, some additional costs might be incurred by certain notified bodies. With regard to compulsory reporting, it is expected that this would amount to very little additional work as notified bodies would have to provide the same information that they already provide to the notifying authority (i.e. competent authority). As such, minimal extra costs would be incurred.

Administrative Burden on Businesses

The Commission's Impact Assessment Guidelines state that whenever a measure is likely to impose significant administrative costs on business, the voluntary sector or public authorities, the EU Standard Cost Model must be applied. The main aim of the model is to assess the net cost of information obligations imposed by EU legislation. The Commission's Impact Assessment Guidelines further state that, in principle, it is sufficient to measure the administrative burden only for the preferred option, unless information obligations are at the core of the proposal.

One off administrative costs are not expected and recurring administrative costs are expected to be incurred once per annum. Compilation of data on products approved is regarded as business as usual costs (defined in the Commission's Impact Assessment Guidelines as activities that would be carried out under the baseline scenario) and as such are not relevant to the Options considered here and only reporting of this information is regarded to impose additional costs. However, these costs are likely to be minimal and are therefore not quantified here. In addition, they are likely to apply to only a minority of notified bodies.

Public Authorities

As for Problem Area F, national authorities in Liechtenstein and Denmark noted that alignment with the NLF would have the advantage of aligning the requirements applicable in the cableways sector with those in other sectors thus reducing the administrative burden on public authorities in countries with a small cableways sector.

Additional costs would, however, be incurred by national authorities in the process of implementing the relevant provisions, such as reviewing documents related to new bodies notified by other Member States or by the European Commission in relation to the roles accorded to them by the NLF.

Innovation and Research

No impacts on research and innovation are expected.

Consumers and Households

No impacts on prices paid by cableways users are anticipated.

Specific Regions and Sectors

Impacts are likely to differ between Member States however all are likely to incur costs of enacting change/transposing change to the Directive. These Member States without notified bodies may also benefit from having some leverage over notified bodies not located in their Member State as they are reliant on the quality of work of notified bodies based outside their country.

Public Health and Safety

As a general point, two stakeholders suggested that the proposed options could have a positive impact on passenger safety but no specific information has been provided on current deficiencies in the work of the notified bodies that could be avoided by the proposed options. Germany expects Option F3 to be highly effective with regard to passenger safety (Option F2 is seen as ineffective).

Conclusion

Options F2 and F3 may contribute to ensuring that notified bodies have the necessary expertise and experience to carry out high quality assessments of the conformity of cableways products. In this regard, it is of note that some stakeholders believe that there are differences between the notified bodies with regard to the level of expertise on cableways products as some notified bodies are rarely involved in assessing cableway subsystems or safety components.

Option F3 is seen as preferable to Option F2 as under this option participation in the relevant activities would not be enforceable and would depend on the goodwill of national authorities and notified bodies.

5.3.7 Problem Area G: Alignment with the NLF: Safeguard Procedure

Summary of the Aims of Intervention and of the Relevant Policy Options

The aim is to align the Cableways Directive with NLF provisions on safeguard procedures.

The relevant policy options are:

- Option G2: Including a description of safeguard measures as given in Articles R31 and R32 of the NLF Decision into the Application Guide, including the two-stage safeguard procedure; and
- Option G3: Amending the Cableways Directive in accordance with Articles R31 and R32 of the NLF Decision, including a two-stage safeguard procedure, where non-compliance is initially dealt with at the national level.

It is anticipated that the most important Articles of the NLF Decision are Articles R31 to R32. By aligning the Cableways Directive with the NLF the existing safeguard clause procedure would be revised. A two-step procedure would be introduced and the steps to be taken by the authorities concerned are clarified. More specifically, cases of non-compliance are initially dealt with at the national level and are only dealt with at the EU level where non-compliance is not restricted to the territory of the Member State in question.

Additional Information on the Significance of the Problem to be Addressed

With regard to the Cableways Directive, the current safeguard procedure is rarely used. However, the general experience of one notified body is that there have been cases of unwarranted use of safeguard procedures by national authorities, where non-compliance had not been sufficiently investigated prior to notifying other Member States. A two-step safeguard procedure may prevent such cases.

Summary of Stakeholder Views

The majority of respondents support alignment of the safeguard procedure with the NLF. Of the 19 competent authorities that responded to the consultation 13 support alignment of the safeguard procedure with the NLF. The remaining six competent authorities do not support alignment because they do not believe it is necessary to change the current situation. Furthermore, one competent authority considers that alignment with the NLF will incur high costs for stakeholders. For those competent authorities that support alignment, Option G3 is comparatively more popular than Option G2 and is considered the most appropriate and logical from a regulatory standpoint. In addition, most notified bodies (5 of 6 who responded to consultation) support the alignment with the NLF. Preference for a specific option is known for two notified bodies and both favour Option G3. FIANET has expressed a weak

preference for the current system and cableways operators associations of Austria and Switzerland consider alignment with the NLF to be beneficial.

Most cableways manufacturers have stated that they do not have sufficient knowledge of this procedure to be able to comment (although at least one manufacturer supports the alignment with the NLF). One manufacturer stated that they were aware of two cases where surveillance authorities raised the alarm over components. In one of these cases the consultee believes the situation was not correctly assessed by the authorities and the matter was not discussed with either the manufacturer in question or with the relevant notified body, i.e. it was not properly investigated at the national level prior to being communicated across the whole of the EU. It was alleged that in this specific case the fault was with the operator (rather than with the manufacturer and notified body) who had carried out the replacement of an old control system in a way that led the new control system to burn down.

Impact on the Internal Market and Competition

No significant impacts are expected.

Impact on Competitiveness, Trade and Investment Flows

No significant impacts are expected.

Operating Costs and Conduct of Business/SMEs

No significant impacts are expected.

Administrative Burdens on Businesses

No significant impacts are expected.

Public Authorities

As with Policy Areas E and F, national authorities in countries with a limited cableway sector would benefit from an approach that is harmonised with other market sectors and in these countries a reduction in administrative burden is anticipated.

Innovation and Research

No impacts on research and innovation are expected.

Consumers and Households

No impacts on prices paid by cableways users are anticipated.

Specific Regions and Sectors

No impacts on specific regions or sectors are expected.

Public Health and Safety

Overall, no significant impacts are expected.

Germany expects Option G3 to be highly effective with regard to passenger safety (Option G2 is seen as ineffective).

Conclusions

Overall, most stakeholders support alignment of the safeguard procedure with the NLF. There is some (limited) information on the benefits that would be accrued in relation to avoidance of unnecessary alerts and reduction in administrative burden for national authorities. Option G3 appears to be more popular than Option G2, and due to its legally binding nature, it is seen as preferable.

6. CONCLUSIONS (SUMMARY OF IMPACTS AND COMPARISON OF POLICY OPTIONS: IA STEPS 6 AND 7)

The main impacts are now summarised and the relevant policy options are compared for each problem area. Please note that this section contrasts Option 2 and 3 but it has been noted by consultees that Option 3 might in some cases have to be implemented in conjunction with Option 2 as changes to the Directive might require corresponding changes to the Application Guide. In such cases, it can be assumed that Option 3 would entail the same costs of implementation by public authorities as Option 2 plus the extra costs of changing the Directive.

6.1 Problem Area A: Definition of Cableway Installations

Based on the approach to modelling the baseline scenario outlined in Section 5 of this report, it can be concluded that there is no evidence that installations that would be affected by Options A2 or A3 are currently sold in the EU. Therefore, these Options are unlikely to bring specific benefits at the present time, although benefits might arise should novel mixed purpose systems be developed in the future. Also, no running costs would currently be incurred by businesses, notified bodies, national authorities or cableway operators.

The main differences between Options A2 and A3 relate to their effectiveness, cost of transposition and ability to flexibly react to future market developments:

- Due to its legally binding nature, Option A3 might be seen as more effective than Option A2, which may be taken into account by Member States to a varying degree. However, these differences relate to potential effectiveness should new systems appear on the market in the future and are therefore of a theoretical nature.
- While depending on whether Option A3 would be implemented in isolation or in conjunction with other changes to the Directive, it is possible that transposition costs of this Option might be significant. By contrast, the costs associated with Option A2 would be significantly lower.
- In addition, Option A2 has the added advantage that the Application Guide is a comparatively more flexible instrument than the Directive and can be more easily and more cost-effectively changed to reflect peculiarities of novel designs, should these appear in the future.

Taking the above into account and (in particular) the absence of specific benefits, it can be concluded that the cost-benefit ratio for Option A2 is superior to Option A3.

6.2 Problem Area B: Confusion over Inclined Lifts and Small Funiculars

Generally speaking, Option B3 cannot be expected to have any discernible impacts as it is unlikely to affect current practices and is thus unlikely to deliver any benefits or result in additional running costs for businesses, notified bodies, national authorities or cableway operators. However, while again depending on whether it would be transposed in isolation or in a package with other changes to the Directive, Option B3 is seen as associated with comparatively high transposition costs. Given the absence of clear benefits, the cost-benefit ratio for this Option is seen as unfavourable.

On the other hand, Option B2 can be expected to have a positive impact, primarily on companies in the lifts sector. These impacts would arise with regard to increased awareness of the need to reach a formal agreement on an installation's classification at an early stage in the planning and design process. The costs associated with this Option can also be expected to be low/moderate and would arise in the course of changing Application Guides to the Lifts and Cableways Directives.

Taking the above into account and (in particular) the absence of specific benefits, it can be concluded that the cost-benefit ratio for Option B2 is better than for Option B3.

6.3 Problem Area C: Definition of Safety Components, Subsystems and Infrastructure

It is clear that all the issues under this problem area listed in Section 4 are perceived by some EU stakeholders as problems. However, the opinions and the information on impacts of the proposed options provided to the consultants by stakeholders are so diverse that it has not been possible to comprehensively and reliably assess the extent of impacts that the proposed options would have (beyond a qualitative overview of stakeholder preferences and perceived risks associated with some of the proposals).

While many national authorities that provided input into the second round of consultation support policy action, stakeholders have provided information risks associated with the specific policy options. By means of example, Option C3A (non-exhaustive list of safety components) is associated with a number of potential problems, including the possibility that it might be presented by some, not as a list of examples, but as amounting to a definitive, EU- approved, list. In addition, this Option would not address problems associated with those product types which can be both safety components and subsystems (no specific examples have been provided by consultees). Also, although intended as indicative, if treated as prescriptive, this Option might hinder innovation.

In conclusion, given the potential risks associated with Option C3, it is proposed to further consider implementing Option C2.

6.4 Problem Area D: Conformity Assessment of Subsystems

Consultation for this study suggests that there is a lack of clarity with regards to existing legal requirements on conformity assessment of subsystems. However, it has been suggested that notified bodies which account for 90% of the notification market already use assessment modules which suggests that the impacts of Options D2 and D3 on cableway manufacturers, notified bodies and operators would likely be relatively limited. There is no specific evidence of impacts on passenger safety. The main impacts would likely arise from addressing problems posed by legal uncertainty.

Due to the non-binding nature of the Application Guide, Option D2 is seen as ineffective in terms of addressing legal uncertainty and it is therefore concluded that benefits of Option D2 are significantly smaller than those arising from Option D3. In conclusion, Option D3 is seen as preferable.

6.5 Problem Area E: Alignment with the NLF (Obligations of Economic Operators)

The cableways sector is said to be transparent with no evidence of attempts to place non-compliant products on the market and no or limited imports (perhaps with the exception of cableway ropes). Therefore, both Option E2 and Option E3 appear to be associated with limited benefits at the present time, although it cannot be ruled out that increased competition from outside of the EU might mean that these Options will deliver benefits in the future. In this respect, any potential future benefits from Option E2 are deemed to be relatively minor and Option E3 is seen as enjoying a comparatively higher potential in terms of its contribution to reducing or preventing sales of non-compliant products.

These Options would be associated with a minor increase in administrative burden, primarily for importers and distributors. Cost impacts on other stakeholders are assumed to be negligible.

With regard to national authorities, these would incur costs arising from transposition of these requirements and changes to existing practices but would also enjoy cost savings from harmonising procedures applied to cableways with those used in other sectors.

From the present-day viewpoint, relatively limited impacts appear to be associated with either of the two options. However, should imports of non-compliant cableway products increase in the future, due to its legally binding nature, Option E3 would appear to be the more effective option.

6.6 Problem Area F: Alignment with the NLF (Criteria for Notified Bodies)

Options F2 and F3 may contribute to ensuring that notified bodies have the necessary expertise and experience to carry out high quality assessments of conformity of cableways products. In this regard, it is of note that some stakeholders believe that there are differences in the quality of notified bodies with regard to the level of expertise on cableways products. This is because some notified bodies are rarely, if ever, involved in assessing cableway subsystems or safety components. However, there is no specific evidence of this leading to the approval of dangerous products.

The main impacts from these options would arise for the notified bodies, national authorities and for the European Commission. With regard to the notification procedure and challenging the competence of the notified bodies, impacts (costs and benefits) cannot be estimated as they would depend on specific activities and steps taken by the European Commission and national authorities in the future. With regard to compulsory participation in information exchange between notified bodies, those notified bodies that currently do not take part in the notified body reporting system would incur additional costs of doing so. However, these costs are estimated to be negligible.

As above, national authorities would incur costs arising from the transposition of these requirements and changes to existing practices but would also enjoy cost savings from harmonising procedures applied to cableways with those used in other sectors.

From the cost-effectiveness point of view, Option F3 is seen as preferable to Option F2 as under this option participation in the relevant activities would not be enforceable and would depend on the goodwill of national authorities and notified bodies.

6.7 Problem Area G: Alignment with the NLF (Safeguard Procedure)

Due to the fact that the safeguard procedure is rarely used in the cableways sector, it has not been possible to provide a detailed assessment of the impacts of aligning this procedure with that given in the NLF.

However, most stakeholders support alignment of the safeguard procedure with the NLF and there is some (limited) information suggesting that benefits might be accrued in relation to the avoidance of unnecessary alerts. Due to its legally binding nature, Option G3 is seen as preferable.

As above, national authorities would incur costs arising from the transposition of these requirements and changes to existing practices but would also enjoy cost savings from harmonising procedures applied to cableways with those used in other sectors.

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ANNEX 1

Overview of Consultation

A1. CONSULTATION CARRIED OUT FOR MODULE 1

In order to explore issues relating to competitiveness and to the impact of the Directive, we undertook direct communication with stakeholders. We have held discussions (or more specifically, received responses to our emails and questionnaires and/or held semi-structured interviews) with the key manufacturers of cableways, subsystems and safety components, national authorities, notified bodies and cableway operators.

Consultation with Manufacturers of Cableways, Subsystems and Safety Components

In total, more than 100 manufacturers of cableways, subsystems and safety components were contacted with requests to participate in this study. Following initial requests for interview sent by email, companies received reminder email and in the case of cableway manufacturers, we followed up with telephone calls in English, German, French, Italian, and Czech. In general, we have encountered some resistance by some companies to be involved in the project; some of these politely declined for reasons of lack of time, while others provided no reason. The feedback from companies involved in the manufacture of safety components and subsystems has been particularly low, with the exception of rope manufacturers.

We received written feedback or held telephone interviews with a total of 15 companies, including nine manufacturers of cableways and six manufacturers of subsystems and/or safety components. We held discussions with major groups manufacturing cableways (interviews have been held with Doppelmayr, Garaventa, Leitner, and Poma). In addition, we have held interviews with two SME cableway manufacturers, and two companies which at the time of the interview did not manufacture cableways within the scope of the Cableways Directive.

Consultation with Cableway Operators

Cableway operators were consulted via the International Federation of Skilift Operators (FIANET) with whom we held a conference call. Additional input was also received from six national associations of cableways operators (Austria, France, Germany, Finland, Slovenia and Switzerland).

Consultation with National Authorities and Notified Bodies

Email questions were sent to relevant national authorities in all EU Member States and in Liechtenstein, Iceland and Norway to establish their experience of the Directive and associated issues. On request, the questionnaire was translated into French and German. Completed questionnaires have been received from 22 countries, while for three additional countries we have been able to hold conference calls. Some national authorities declined to answer the questionnaire as they did not have sufficient experience with the Directive. Only three countries provided no feedback whatsoever. The response rate from national authorities is summarised in Table A1.1.

Number of Ski Lifts	Member State	Email and Questionnaire Sent	Email Response	Questionnaire Completed	Telephone Discussion
Large >1 000 installations	France	✓	✓	✓	✓
	Austria	✓		✓	
	Italy	✓		✓	
	Germany	✓	✓	✓	
Medium 100 – 1 000 installations	Czech Republic	✓	✓		✓
	Finland	✓		✓	
	Norway	✓		✓	
	Poland	✓	✓	✓	
	Romania	✓	✓	✓	
	Slovakia	✓	✓	✓	
	Slovenia	✓	✓	✓	✓
	Spain	✓	✓	✓	
	Sweden	✓	✓	✓	✓
Small < 100 installations	Belgium	✓			
	Bulgaria	✓	✓	✓	
	Cyprus	✓	✓	✓	
	Denmark	✓	✓		✓
	Estonia	✓		✓	
	Ireland	✓			
	Iceland	✓	✓		✓
	Greece	✓	✓	✓	
	Hungary	✓	✓	✓	✓
	Latvia	✓	✓	✓	
	Liechtenstein	✓	✓	✓	✓
	Lithuania	✓		✓	
	Luxembourg	✓	✓		
	Malta	✓	✓		
	Netherlands	✓			
	Portugal	✓		✓	
UK	✓	✓	✓	✓	

In addition, email requests were sent to all 23 notified bodies holding active accreditation relating to the Cableways Directive. Conference calls or written

feedback was received from nine notified bodies in Austria, Czech Republic, France, Germany, Poland, and in the Slovak Republic.

A2. CONSULTATION CARRIED OUT FOR MODULE 2

To be able to fully discuss the identified problem areas and the suggested policy options we undertook direct communication with stakeholders. We initially contacted stakeholders by email which, where possible, was followed up by a telephone discussion (which took the form of a semi-structured interview). Telephone discussions were held with stakeholders from across the European cableways industry including manufacturers (of cableways installations, subsystems and safety components), national authorities, notified bodies and cableways operators. Some respondents provided written responses.

Consultation with Manufacturers of Cableways, Subsystems and Safety Components

Significant effort was made to contact manufacturers of cableways, subsystems and safety components. A total of 91 manufacturers were contacted: this included 36 manufacturers of cableways installations and 55 manufacturers of subsystems and safety components. Initial contact was made via email which explained the study, the problem areas in question and the related policy options. Emails were sent in English, French, German, Italian and Czech. Follow-up emails were sent for those who had not responded. As in Module 1 there has been some resistance by manufacturing companies within the industry to participate in the study. Companies either refused to participate (for varying reasons) or did not respond to our communications. Again, participation from manufacturers of subsystems and safety components has been particularly low.

In response to our initial email we held telephone discussions with 13 manufacturers (which consisted of seven manufacturers of cableways and six manufacturers of subsystems and safety components). With regards cableways manufacturers, discussions were held with major industry players including Doppelmayr and Garaventa (discussions were held with both branches of the company as they focus on the manufacture of different types of products), Leitner and Poma. In order to establish the opinion of SMEs as well as large companies we also conducted telephone interviews with representatives of three other cableway manufacturers. As previously mentioned, telephone discussions were also held with seven manufacturers of subsystems and safety components. Discussions were conducted with three rope manufacturers, manufacturers of electrical systems and manufacturers of other subsystems and safety components.

Industry organisations were also contacted and a telephone discussion was held with the Italian National Association of Cableways Technicians (ANITIF).

In addition, three manufacturers of inclined lifts/funiculars were contacted to discuss specific installations and conference calls were also held with two manufacturers of dry toboggan runs and Alpine Coasters.

Consultation with National Authorities

Emails (in English, French, German, Italian and Czech) were sent to all relevant national authorities in all EU Member States (as well as in Liechtenstein, Iceland, Norway and Switzerland) in order to establish their opinion on the seven problem areas and the suggested policy options. Email responses were received from eleven countries: Estonia, Greece, Italy, Lithuania, Luxembourg, Latvia, Malta, the Slovak Republic, Germany, Romania and Turkey. These emails contained responses to questions which were set out in the initial email with additional comments and opinions (where possible and appropriate). In addition to the email responses, telephone discussions were held with nine national authorities: UK, Belgium, Sweden, Netherlands, Denmark, the Czech Republic, Switzerland, France and Austria.

Additional queries, via email, were sent to all Member States regarding cableways accidents within their MS. To date, 12 MS have sent email responses to this query. With regards accidents email contact was also made with the NSAA (National Ski Areas Association) which represents the ski industry in the USA in attempt to obtain statistics regarding cableways accidents in the USA. A similar query was also directed to International Federation of Ski Lift Operators (FIANET) and several national associations of cableway operators.

Consultation with Notified Bodies

Consultation was also conducted with Notified Bodies across the EU. Initial emails (in English, French, German, Italian and Czech) were sent to all 23 notified bodies holding active accreditation relating to the Cableways Directive. Follow up emails were sent when no response was received. Written feedback (in the form of written responses to questions sent by email) was received from one notified body in the Slovak Republic. A total of five telephone discussions were held with notified bodies from France, Austria, Spain, Italy and the Czech Republic.

Consultation with Cableway Operators

Contact was made with national cableways operators associations via FIANET and consultation was conducted in the form of a conference call. We also held a joint conference call with the Czech cableways operators association and Czech national authority.

ANNEX 2

Review of the New Legislative Framework (NLF)

B2. REVIEW OF NLF PROVISIONS

This chapter provides a comparative overview of the Cableways Directive and of the NLF Decision³⁵. The aim of this Annex is to identify the main differences between the current legal framework and that proposed by the NLF, with particular reference to the problem areas identified, i.e.:

- obligations of economic operators;
- criteria for notified bodies; and
- safeguard clause mechanisms.

This is achieved by means of the following three stages:

- Stage 1: Identification of provisions in the NLF Decision that are relevant to the three problem areas considered by this study;
- Stage 2: Comparison of the current regulatory framework and relevant provisions identified under Stage 1, with the aim of compiling a list of provisions which could provide significant added value as opposed to the baseline (Option 1); and
- Stage 3: Summary of key points of those NLF provisions identified under Stages 1 and 2 as relevant and substantially adding to the current framework, and an assessment of their relevance to the policy options considered in this study.

This Annex refers to Decision No 768/2008/EC as the NLF Decision.

B2.1 Stage 1: Identification of Relevant Provisions

This Section provides an overview of the relevant articles in the NLF Decision that are relevant to the three issues in hand.

Table B2.1: Relevant Articles the NLF Decision	
Problem Area	Relevant Articles
Obligations of economic operators	NLFD Article R2 (Obligations of Manufacturers) NLFD Article R3 (Authorised Representatives) NLFD Article R4 (Obligations of Importers) NLFD Article R5 (Obligations of Distributors) NLFD Article R6 (Cases where obligations of manufacturers apply to importers and distributors) NLFD Article R7 (Identification of economic operators)
Criteria for notified bodies	NLFD Article R13 (Notification) NLFD Article R14 (Notifying authorities) NLFD Article R15 (Requirements relating to notifying authorities) NLFD Article R16 (Information obligation on notifying authorities) NLFD Article R17 (Requirements relating to notified bodies) NLFD Article R18 (Presumption of conformity)

³⁵ Decision No 768/2008/EC establishing a common framework for the marketing of products.

Problem Area	Relevant Articles
	NLFD Article R20 (Subsidiaries of and subcontracting by notified bodies) NLFD Article R21 (Accredited in-house bodies) NLFD Article R22 (Application for notification) NLFD Article R23 (Notification procedure) NLFD Article R24 (Identification numbers and lists of notified bodies) NLFD Article R25 (Changes to notifications) NLFD Article R26 (Challenge of competence of notified bodies) NLFD Article R27 (Operational obligations of notified bodies) NLFD Article R28 (Information obligation on notified bodies)
Safeguard clause mechanisms	NLFD Article R31 (Procedure for dealing with products presenting a risk at national level) NLFD Article R32 (Community safeguard procedure) NLFD Article R33 (Compliant products which present a risk to health and safety)

B2.2 Stage 2: Initial Assessment of the NLF’s Potential for Improving the Current Directive

Some of the topically relevant provisions in the NLF listed in Table B2.1 may either not result in tangible benefits over and above the existing regulatory framework and/or their implementation is not likely to be associated with significant additional costs.

As such, these provisions are of limited relevance to this study. This Section therefore provides an initial assessment of NLF articles listed in Table B2.1 in terms of their potential to improve the current regulatory framework. The output is a list of those provisions in the NLF that are not only relevant to the problem areas in hand but whose implementation would also result in tangible benefits or costs (these are indicated by means of a “yes” in Tables B2.2 to B2.25).

Obligations of Economic Operators

Obligations of Manufacturers	Added value?
1. When placing their products on the market, manufacturers shall ensure that they have been designed and manufactured in accordance with the requirements set out in ... [reference to the relevant part of the legislation].	No
2. Manufacturers shall draw up the required technical documentation and carry out the conformity assessment procedure applicable or have it carried out. Where compliance of a product with the applicable requirements has been demonstrated by that procedure, manufacturers shall draw up an EC declaration of conformity and affix the conformity marking.	No
3. Manufacturers shall keep the technical documentation and the EC declaration of conformity for ... [period to be specified in proportion to the lifecycle of the product and the level of risk] after the product has been placed on the market.	No

Table B2.2: Clarifying the Responsibilities and Accountability of ‘Manufacturers’	
Obligations of Manufacturers	Added value?
4. Manufacturers shall ensure that procedures are in place for series production to remain in conformity. Changes in product design or characteristics and changes in the harmonised standards or in technical specifications by reference to which conformity of a product is declared shall be adequately taken into account.	Yes
When deemed appropriate with regard to the risks presented by a product, manufacturers shall, to protect the health and safety of consumers, carry out sample testing of marketed products, investigate, and, if necessary, keep a register of complaints, of non-conforming products and product recalls, and shall keep distributors informed of any such monitoring.	Yes³⁶
5. Manufacturers shall ensure that their products bear a type, batch or serial number or other element allowing their identification, or, where the size or nature of the product does not allow it, that the required information is provided on the packaging or in a document accompanying the product.	Yes
6. Manufacturers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the product or, where that is not possible, on its packaging or in a document accompanying the product. The address must indicate a single point at which the manufacturer can be contacted.	Yes
7. Manufacturers shall ensure that the product is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned.	Yes³⁷
8. Manufacturers who consider or have reason to believe that a product which they have placed on the market is not in conformity with the applicable Community harmonisation legislation shall immediately take the necessary corrective measures to bring that product into conformity, to withdraw it or recall it, if appropriate.	No
Furthermore, where the product presents a risk, manufacturers shall immediately inform the competent national authorities of the Member States in which they made the product available to that effect, giving details, in particular, of the noncompliance and of any corrective measures taken.	
9. Manufacturers shall, further to a reasoned request from a competent national authority, provide it with all the information and documentation necessary to demonstrate the conformity of the product, in a language which can be easily understood by that authority. They shall cooperate with that authority, at its request, on any action taken to eliminate the risks posed by products which they have placed on the market.	Yes
<i>Source: Article R2, Chapter R2 of Decision No 768/2008/EC</i>	

³⁶ This paragraph may add value to the Cableways Directive; however, exemption for the cableways sector could be considered. This refers specifically to the second paragraph of Article R2(4).

³⁷ See footnote above.

Obligations of Authorised Representatives	Added value?
1. A manufacturer may, by a written mandate, appoint an authorised representative. The obligations laid down in Article [R2(1)] and the drawing up of technical documentation shall not form part of the authorised representative's mandate.	No
2. An authorised representative shall perform the tasks specified in the mandate received from the manufacturer. The mandate shall allow the authorised representative to do at least the following: (a) keep the EC declaration of conformity and the technical documentation at the disposal of national surveillance authorities for ... [<i>period to be specified in proportion to the lifecycle of the product and the level of risk</i>]; (b) further to a reasoned request from a competent national authority, provide that authority with all the information and documentation necessary to demonstrate the conformity of a product; (c) cooperate with the competent national authorities, at their request, on any action taken to eliminate the risks posed by products covered by their mandate.	No

Source: Article R3, Chapter R2 of Decision No 768/2008/EC

Obligations of Importers	Added value?
1. Importers shall place only compliant products on the Community market.	No
2. Before placing a product on the market importers shall ensure that the appropriate conformity assessment procedure has been carried out by the manufacturer. They shall ensure that the manufacturer has drawn up the technical documentation, that the product bears the required conformity marking or markings and is accompanied by the required documents, and that the manufacturer has complied with the requirements set out in Article [R2(5) and (6)]. Where an importer considers or has reason to believe that a product is not in conformity with ... [reference to the relevant part of the legislation], he shall not place the product on the market until it has been brought into conformity. Furthermore, where the product presents a risk, the importer shall inform the manufacturer and the market surveillance authorities to that effect.	Yes
3. Importers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the product or, where that is not possible, on its packaging or in a document accompanying the product.	Yes
4. Importers shall ensure that the product is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned.	Yes ³⁸
5. Importers shall ensure that, while a product is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in ... [reference to the relevant part of the legislation].	No
6. When deemed appropriate with regard to the risks presented by a product,	Yes ³⁹

³⁸ This paragraph may add value to the Cableways Directive, however exemption for the cableways sector could be considered.

Table B2.4: Clarifying the Responsibilities and Accountability of ‘Importers’	
Obligations of Importers	Added value?
<p>importers shall, to protect the health and safety of consumers, carry out sample testing of marketed products, investigate, and, if necessary, keep a register of complaints, of non-conforming products and product recalls, and shall keep distributors informed of such monitoring.</p>	
<p>7. Importers who consider or have reason to believe that a product which they have placed on the market is not in conformity with the Community harmonisation legislation applicable shall immediately take the corrective measures necessary to bring that product into conformity, to withdraw it or recall it, if appropriate. Furthermore, where the product presents a risk, importers shall immediately inform the competent national authorities of the Member States in which they made the product available to that effect, giving details, in particular, of the non-compliance and of any corrective measures taken.</p>	Yes
<p>8. Importers shall, for ... [period to be specified in proportion to the lifecycle of the product and the level of risk], keep a copy of the EC declaration of conformity at the disposal of the market surveillance authorities and ensure that the technical documentation can be made available to those authorities, upon request.</p>	Yes
<p><i>Source: Article R4, Chapter R2 of Decision No 768/2008/EC</i></p>	

Table B2.5: Clarifying the Responsibilities and Accountability of ‘Distributors’	
Obligations of Distributors	Added value?
<p>1. When making a product available on the market distributors shall act with due care in relation to the requirements applicable.</p>	No
<p>2. Before making a product available on the market distributors shall verify that the product bears the required conformity marking or markings, that it is accompanied by the required documents and by instructions and safety information in a language which can be easily understood by consumers and other end-users in the Member State in which the product is to be made available on the market, and that the manufacturer and the importer have complied with the requirements set out in Article [R2(5) and (6)] and Article [R4(3)].</p> <p>Where a distributor considers or has reason to believe that a product is not in conformity with ... [reference to the relevant part of the legislation], he shall not make the product available on the market until it has been brought into conformity. Furthermore, where the product presents a risk, the distributor shall inform the manufacturer or the importer to that effect as well as the market surveillance authorities.</p>	Yes
<p>3. Distributors shall ensure that, while a product is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in ... [reference to the relevant part of the legislation].</p>	No
<p>4. Distributors who consider or have reason to believe that a product which they have made available on the market is not in conformity with the Community harmonisation legislation applicable shall make sure that the corrective measures necessary to bring that</p>	No

³⁹ This paragraph may add value to the Cableways Directive, however exemption for the cableways sector could be considered.

Table B2.5: Clarifying the Responsibilities and Accountability of ‘Distributors’	
Obligations of Distributors	Added value?
<p>product into conformity, to withdraw it or recall it, if appropriate, are taken. Furthermore, where the product presents a risk, distributors shall immediately inform the competent national authorities of the Member States in which they made the product available to that effect, giving details, in particular, of the non-compliance and of any corrective measures taken.</p> <p>5. Distributors shall, further to a reasoned request from a competent national authority, provide it with all the information and documentation necessary to demonstrate the conformity of a product. They shall cooperate with that authority, at its request, on any action taken to eliminate the risks posed by products which they have made available on the market.</p>	No
<i>Source: Article R5, Chapter R2 of Decision No 768/2008/EC</i>	

Table B2.6: Cases in Which Obligations of Manufacturers Apply to Importers and Distributors	
Obligations of Importers and Distributors	Added value?
<p>An importer or distributor shall be considered a manufacturer for the purposes of this ... <i>[name of relevant piece of legislation]</i> and he shall be subject to the obligations of the manufacturer under <i>[reference to the relevant part of the legislation]</i>, where he places a product on the market under his name or trademark or modifies a product already placed on the market in such a way that compliance with the applicable requirements may be affected.</p>	No
<i>Source: Article R6, Chapter R2 of Decision No 768/2008/EC</i>	

Table B2.7: Clarifying the Responsibilities of Economic Operators	
Obligations of Economic Operators	Added value?
<p>Economic operators shall, on request, identify the following to the market surveillance authorities, for ... <i>[period to be specified in proportion to the lifecycle of the product and the level of risk]</i>:</p> <p>(a) any economic operator who has supplied them with a product; (b) any economic operator to whom they have supplied a product.</p>	Yes
<i>Source: Article R7, Chapter R2 of Decision No 768/2008/EC</i>	

Criteria for Notified Bodies

Table B2.8: Notification of Conformity Assessment Bodies	
Notification	Added value?
<p>Member States shall notify the Commission and the other Member States of bodies authorised to carry out third-party conformity assessment tasks under this [act].</p>	No
<i>Source: Article R13, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.9: Notification of Conformity Assessment Bodies	
Notifying Authorities	Added value?
<p>1. Member States shall designate a notifying authority that shall be responsible for setting up and carrying out the necessary procedures for the assessment and notification of</p>	No

Table B2.9: Notification of Conformity Assessment Bodies	
Notifying Authorities	Added value?
conformity assessment bodies and the monitoring of notified bodies, including compliance with the provisions of Article [R20].	
2. Member States may decide that the assessment and monitoring referred to in paragraph 1 shall be carried by a national accreditation body within the meaning of and in accordance with Regulation (EC) No 765/2008.	No
3. Where the notifying authority delegates or otherwise entrusts the assessment, notification or monitoring referred to in paragraph 1 to a body which is not a governmental entity, that body shall be a legal entity and shall comply mutatis mutandis with the requirements laid down in Article [R15 (1) to (6)].	No
4. The notifying authority shall take full responsibility for the tasks performed by the body referred to in paragraph 3.	No
<i>Source: Article R14, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.10: Notification of Conformity Assessment Bodies	
Requirements Relating to Notifying Authorities	Added value?
1. A notifying authority shall be established in such a way that no conflict of interest with conformity assessment bodies occurs.	No
2. A notifying authority shall be organised and operated so as to safeguard the objectivity and impartiality of its activities.	No
3. A notifying authority shall be organised in such a way that each decision relating to notification of a conformity assessment body is taken by competent persons different from those who carried out the assessment.	No
4. A notifying authority shall not offer or provide any activities that conformity assessment bodies perform or consultancy services on a commercial or competitive basis.	No
5. A notifying authority shall safeguard the confidentiality of the information it contains.	No
6. A notifying authority shall have a sufficient number of competent personnel at its disposal for the proper performance of its tasks.	No
<i>Source: Article R15, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.11: Notification of Conformity Assessment Bodies	
Information Obligation on Notifying Authorities	Added value?
Member States shall inform the Commission of their procedures for the assessment and notification of conformity assessment bodies and the monitoring of notified bodies, and of any changes thereto.	No
The Commission shall make that information publicly available.	
<i>Source: Article R16, Chapter R2 of Decision No 768/2008/EC</i>	

Table B2.12: Notification of Conformity Assessment Bodies	
Requirements Relating to Notified Bodies	Added value?
1. For the purposes of notification, a conformity assessment body shall meet the requirements laid down in paragraphs 2 to 11.	No
2. A conformity assessment body shall be established under national law and have legal personality.	No
3. A conformity assessment body shall be a third-party body independent of the organisation or the product it assesses.	Yes
A body belonging to a business association or professional federation representing undertakings involved in the design, manufacturing, provision, assembly, use or maintenance of products which it assesses, may, on condition that its independence and the absence of any conflict of interest are demonstrated, be considered such a body.	
4. A conformity assessment body, its top level management and the personnel responsible for carrying out the conformity assessment tasks shall not be the designer, manufacturer, supplier, installer, purchaser, owner, user or maintainer of the products which they assess, nor the authorised representative of any of those parties. This shall not preclude the use of assessed products that are necessary for the operations of the conformity assessment body or the use of such products for personal purposes.	Yes
A conformity assessment body, its top level management and the personnel responsible for carrying out the conformity assessment tasks shall not be directly involved in the design, manufacture or construction, the marketing, installation, use or maintenance of those products, or represent the parties engaged in those activities. They shall not engage in any activity that may conflict with their independence of judgment or integrity in relation to conformity assessment activities for which they are notified. This shall in particular apply to consultancy services.	
Conformity assessment bodies shall ensure that the activities of their subsidiaries or subcontractors do not affect the confidentiality, objectivity or impartiality of their conformity assessment activities.	
5. Conformity assessment bodies and their personnel shall carry out the conformity assessment activities with the highest degree of professional integrity and the requisite technical competence in the specific field and shall be free from all pressures and inducements, particularly financial, which might influence their judgement or the results of their conformity assessment activities, especially as regards persons or groups of persons with an interest in the results of those activities.	No
6. A conformity assessment body shall be capable of carrying out all the conformity assessment tasks assigned to it by ... <i>[reference to relevant part of the legislation]</i> and in relation to which it has been notified, whether those tasks are carried out by the conformity assessment body itself or on its behalf and under its responsibility.	No
At all times and for each conformity assessment procedure and each kind or category of products in relation to which it has been notified, a conformity assessment body shall have at its disposal the necessary:	
(a) personnel with technical knowledge and sufficient and appropriate experience to perform the conformity assessment tasks;	

Table B2.12: Notification of Conformity Assessment Bodies	
Requirements Relating to Notified Bodies	Added value?
<p>(b) descriptions of procedures in accordance with which conformity assessment is carried out, ensuring the transparency and the ability of reproduction of those procedures. It shall have appropriate policies and procedures in place that distinguish between tasks it carries out as a notified body and other activities;</p> <p>(c) procedures for the performance of activities which take due account of the size of an undertaking, the sector in which it operates, its structure, the degree of complexity of the product technology in question and the mass or serial nature of the production process.</p> <p>It shall have the means necessary to perform the technical and administrative tasks connected with the conformity assessment activities in an appropriate manner and shall have access to all necessary equipment or facilities.</p> <p>7. The personnel responsible for carrying out conformity assessment activities shall have the following:</p> <p>(a) sound technical and vocational training covering all the conformity assessment activities in relation to which the conformity assessment body has been notified;</p> <p>(b) satisfactory knowledge of the requirements of the assessments they carry out and adequate authority to carry out those assessments;</p> <p>(c) appropriate knowledge and understanding of the essential requirements, of the applicable harmonised standards and of the relevant provisions of Community harmonisation legislation and of its implementing regulations;</p> <p>(d) the ability to draw up certificates, records and reports demonstrating that assessments have been carried out.</p>	No
<p>8. The impartiality of the conformity assessment bodies, their top level management and of the assessment personnel shall be guaranteed.</p> <p>The remuneration of the top level management and assessment personnel of a conformity assessment body shall not depend on the number of assessments carried out or on the results of those assessments.</p>	Yes
<p>9. Conformity assessment bodies shall take out liability insurance unless liability is assumed by the State in accordance with national law, or the Member State itself is directly responsible for the conformity assessment.</p>	No
<p>10. The personnel of a conformity assessment body shall observe professional secrecy with regard to all information obtained in carrying out their tasks under ... [reference to the relevant part of the legislation] or any provision of national law giving effect to it, except in relation to the competent authorities of the Member State in which its activities are carried out. Proprietary rights shall be protected.</p>	No
<p>11. Conformity assessment bodies shall participate in, or ensure that their assessment personnel are informed of, the relevant standardisation activities and the activities of the notified body coordination group established under the relevant Community harmonisation legislation and apply as general guidance the administrative decisions and documents produced as a result of the work of that group.</p>	No
<p><i>Source: Article R17, Decision (EC) 768/2008</i></p>	

Table B2.13: Notification of Conformity Assessment Bodies	
Presumption of Conformity	Added value?
Where a conformity assessment body demonstrates its conformity with the criteria laid down in the relevant harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union it shall be presumed to comply with the requirements set out in Article [R17] in so far as the applicable harmonised standards cover those requirements.	No
<i>Source: Article R18, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.14: Notification of Conformity Assessment Bodies	
Subsidiaries of and Subcontracting by Notified Bodies	Added value?
1. Where a notified body subcontracts specific tasks connected with conformity assessment or has recourse to a subsidiary, it shall ensure that the subcontractor or the subsidiary meets the requirements set out in Article [R17] and shall inform the notifying authority accordingly.	No
2. Notified bodies shall take full responsibility for the tasks performed by subcontractors or subsidiaries wherever these are established.	No
3. Activities may be subcontracted or carried out by a subsidiary only with the agreement of the client.	No
4. Notified bodies shall keep at the disposal of the notifying authority the relevant documents concerning the assessment of the qualifications of the subcontractor or the subsidiary and the work carried out by them under...[reference to the relevant part of the legislation].	Yes
<i>Source: Article R20, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.15: Notification of Conformity Assessment Bodies	
Accredited in-house Bodies	Added value?
1. An accredited in-house body may be used to carry out conformity assessment activities for the undertaking of which it forms a part for the purpose of implementing the procedures set out in [Annex II – modules A1, A2, C1 or C2]. That body shall constitute a separate and distinct part of the undertaking and shall not participate in the design, production, supply, installation, use or maintenance of the products it assesses.	Yes⁴⁰
2. An accredited in-house body shall meet the following requirements: (a) it shall be accredited in accordance with Regulation (EC) No 765/2008; (b) the body and its personnel shall be organisationally identifiable and have reporting methods within the undertaking of which they form a part which ensure their impartiality and demonstrate it to the relevant national accreditation body; (c) neither the body nor its personnel shall be responsible for the design, manufacture, supply, installation, operation or maintenance of the products they assess nor shall they engage in any activity that might conflict with their	Yes⁴¹

⁴⁰ This paragraph may add value to the Cableways Directive, however exemption for the cableways sector could be considered.

⁴¹ See footnote above.

Table B2.15: Notification of Conformity Assessment Bodies	
Accredited in-house Bodies	Added value?
<p>independence of judgement or integrity in relation to their assessment activities; (d) the body shall supply its services exclusively to the undertaking of which it forms a part.</p> <p>3. An accredited in-house body shall not be notified to the Member States or the Commission, but information concerning its accreditation shall be given by the undertaking of which it forms a part or by the national accreditation body to the notifying authority at the request of that authority.</p>	Yes ⁴²
<i>Source: Article R21, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.16: Notification of Conformity Assessment Bodies	
Application for Notification	Added value?
1. A conformity assessment body shall submit an application for notification to the notifying authority of the Member State in which it is established.	No
2. That application shall be accompanied by a description of the conformity assessment module or modules and the product or products for which that body claims to be competent, as well as by an accreditation certificate, where one exists, issued by a national accreditation body attesting that the conformity assessment body fulfils the requirements laid down in Article [R17] of this...[act].	Yes
3. Where the conformity assessment body concerned cannot provide an accreditation certificate, it shall provide the notifying authority with all the documentary evidence necessary for the verification, recognition and regular monitoring of its compliance with the requirements laid down in Article [R17].	Yes
<i>Source: Article R22, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.17: Notification of Conformity Assessment Bodies	
Notification Procedure	Added value?
1. Notifying authorities may notify only conformity assessment bodies which have satisfied the requirements laid down in Article [R17].	No
2. They shall notify the Commission and the other Member States using the electronic notification tool developed and managed by the Commission.	No
3. The notification shall include full details of the conformity assessment activities, the conformity assessment module or modules and product or products concerned and the relevant attestation of competence.	No
4. Where notification is not based on an accreditation certificate as referred to in Article [R22(2)], the notifying authority shall provide the Commission and the other Member States with documentary evidence which attests to the conformity assessment body's competence and the arrangements in place to ensure that the body will be monitored regularly and will continue to satisfy the requirements laid down in Article [R17].	No
5. The body concerned may perform the activities of a notified body only where no	Yes

⁴² This paragraph may add value to the Cableways Directive, however exemption for the cableways sector could be considered.

Table B2.17: Notification of Conformity Assessment Bodies	
Notification Procedure	Added value?
<p>objections are raised by the Commission or the other Member States within two weeks of a notification where an accreditation certificate is used or within two months of a notification where accreditation is not used.</p> <p>Only such a body shall be considered a notified body for the purposes of this...[act].</p> <p>6. The Commission and the other Member States shall be notified of any subsequent relevant changes to the notification.</p>	<p>Yes</p>
<p><i>Source: Article R23, Chapter R4 of Decision No 768/2008/EC</i></p>	

Table B2.18: Notification of Conformity Assessment Bodies	
Identification Numbers and Lists of Notified Bodies	Added value?
<p>1. The Commission shall assign an identification number to a notified body.</p> <p>It shall assign a single such number even where the body is notified under several Community acts.</p>	<p>No</p>
<p>2. The Commission shall make publicly available the list of the bodies notified under this...[act], including the identification numbers that have been allocated to them and the activities for which they have been notified.</p> <p>The Commission shall ensure that that list is kept up to date.</p>	<p>No</p>
<p><i>Source: Article R24, Chapter R4 of Decision No 768/2008/EC</i></p>	

Table B2.19: Notification of Conformity Assessment Bodies	
Changes to Notifications	Added value?
<p>1. Where a notifying authority has ascertained or has been informed that a notified body no longer meets the requirements laid down in Article [R17], or that it is failing to fulfil its obligations, the notifying authority shall restrict, suspend or withdraw notification as appropriate, depending on the seriousness of the failure to meet those requirements or fulfil those obligations. It shall immediately inform the Commission and the other Member States accordingly.</p>	<p>No</p>
<p>2. In the event of restriction, suspension or withdrawal of notification, or where the notified body has ceased its activity, the notifying Member State shall take appropriate steps to ensure that the files of that body are either processed by another notified body or kept available for the responsible notifying and market surveillance authorities at their request.</p>	<p>Yes</p>
<p><i>Source: Article R25, Chapter R4 of Decision No 768/2008/EC</i></p>	

Table B2.20: Notification of Conformity Assessment Bodies	
Challenge of the Competence of Notified Bodies	Added value?
<p>1. The Commission shall investigate all cases where it doubts, or doubt is brought to its attention regarding, the competence of a notified body or the continued fulfilment by a notified body of the requirements and responsibilities to which it is subject.</p>	<p>No</p>
<p>2. The notifying Member State shall provide the Commission, on request, with all</p>	<p>Yes</p>

Table B2.20: Notification of Conformity Assessment Bodies	
Challenge of the Competence of Notified Bodies	Added value?
information relating to the basis for the notification or the maintenance of the competence of the body in question.	
3. The Commission shall ensure that all sensitive information obtained in the course of its investigations is treated confidentially.	No
4. Where the Commission ascertains that a notified body does not meet or no longer meets the requirements for its notification, it shall inform the notifying Member State accordingly and request it to take the necessary corrective measures, including de-notification if necessary.	Yes
<i>Source: Article R26, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.21: Notification of Conformity Assessment Bodies	
Operational Obligations of Notified Bodies	Added value?
1. Notified bodies shall carry out conformity assessments in accordance with the conformity assessment procedures provided for in...[the relevant part of the legislation].	No
2. Conformity assessments shall be carried out in a proportionate manner, avoiding unnecessary burdens for economic operators. Conformity assessment bodies shall perform their activities taking due account of the size of an undertaking, the sector in which it operates, its structure, the degree of complexity of the product technology in question and the mass or serial nature of the production process. In so doing they shall nevertheless respect the degree of rigour and the level of protection required for the compliance of the product with the provisions of this ... [act].	Yes
3. Where a notified body finds that requirements laid down in ... [the relevant part of the legislation] or corresponding harmonised standards or technical specifications have not been met by a manufacturer, it shall require that manufacturer to take appropriate corrective measures and shall not issue a conformity certificate.	Yes
4. Where, in the course of the monitoring of conformity following the issue of a certificate, a notified body finds that a product no longer complies, it shall require the manufacturer to take appropriate corrective measures and shall suspend or withdraw the certificate if necessary.	No
5. Where corrective measures are not taken or do not have the required effect, the notified body shall restrict, suspend or withdraw any certificates, as appropriate.	No
<i>Source: Article R27, Chapter R4 of Decision No 768/2008/EC</i>	

Table B2.22: Notification of Conformity Assessment Bodies	
Information Obligation on Notified Bodies	Added value?
1. Notified bodies shall inform the notifying authority of the following: (a) any refusal, restriction, suspension or withdrawal of a certificate; (b) any circumstances affecting the scope of and conditions for notification; (c) any request for information which they have received from market surveillance authorities regarding conformity assessment activities; (d) on request, conformity assessment activities performed within the scope of their notification and any other activity performed, including cross-border activities and subcontracting.	No

Table B2.22: Notification of Conformity Assessment Bodies	
Information Obligation on Notified Bodies	Added value?
2. Notified bodies shall provide the other bodies notified under this...[act] carrying out similar conformity assessment activities covering the same products with relevant information on issues relating to negative and, on request, positive conformity assessment results.	Yes
<i>Source: Article R28, Chapter R4 of Decision No 768/2008/EC</i>	

Safeguard Measures

Table B2.23: Safeguard Measures (Procedure for dealing with products presenting a risk at national level)	
Obligations of Member States	Added value?
<p>1. Where the market surveillance authorities of one Member State have taken action pursuant to Article 20 of Regulation (EC) No 765/2008, or where they have sufficient reason to believe that a product covered by this ... [act] presents a risk to the health or safety of persons or to other aspects of public interest protection covered by this ... [act], they shall carry out an evaluation in relation to the product concerned covering all the requirements laid down in this ... [act]. The relevant economic operators shall cooperate as necessary with the market surveillance authorities.</p> <p>Where, in the course of that evaluation, the market surveillance authorities find that the product does not comply with the requirements laid down in this ... [act], they shall without delay require the relevant economic operator to take all appropriate corrective action to bring the product into compliance with those requirements, to withdraw the product from the market, or to recall it within a reasonable period, commensurate with the nature of the risk, as they may prescribe.</p> <p>The market surveillance authorities shall inform the relevant notified body accordingly.</p> <p>Article 21 of Regulation (EC) No 765/2008 shall apply to the measures referred to in the second subparagraph.</p>	Yes
2. Where the market surveillance authorities consider that non-compliance is not restricted to their national territory, they shall inform the Commission and the other Member States of the results of the evaluation and of the actions which they have required the economic operator to take.	Yes
3. The economic operator shall ensure that all appropriate corrective action is taken in respect of all the products concerned that it has made available on the market throughout the Community.	No
4. Where the relevant economic operator does not take adequate corrective action within the period referred to in the second subparagraph of paragraph 1, the market surveillance authorities shall take all appropriate provisional measures to prohibit or restrict the product's being made available on their national market, to withdraw the product from that market or to recall it.	No
They shall inform the Commission and the other Member States, without delay, of those measures.	

Table B2.23: Safeguard Measures (Procedure for dealing with products presenting a risk at national level)	
Obligations of Member States	Added value?
<p>5. The information referred to in paragraph 4 shall include all available details, in particular the data necessary for the identification of the non-compliant product, the origin of the product, the nature of the non-compliance alleged and the risk involved, the nature and duration of the national measures taken and the arguments put forward by the relevant economic operator. In particular, the market surveillance authorities shall indicate whether the non-compliance is due to either:</p> <p>(a) failure of the product to meet requirements relating to the health or safety of persons or to other aspects of public interest protection laid down in this ... [act]; or</p> <p>(b) shortcomings in the harmonised standards referred to in ... [reference to the relevant part of the legislation] conferring a presumption of conformity.</p>	No
<p>6. Member States other than the Member State initiating the procedure shall without delay inform the Commission and the other Member States of any measures adopted and of any additional information at their disposal relating to the non-compliance of the product concerned, and, in the event of disagreement with the notified national measure, of their objections.</p>	Yes
<p>7. Where, within [period to be specified] of receipt of the information referred to in paragraph 4, no objection has been raised by either a Member State or the Commission in respect of a provisional measure taken by a Member State, that measure shall be deemed justified.</p>	Yes
<p>8. Member States shall ensure that appropriate restrictive measures are taken in respect of the product concerned, such as withdrawal of the product from their market, without delay.</p>	No
<p><i>Source: Article R31, Chapter R5, Decision (EC) 768/2008</i></p>	

Table B2.24: Safeguard Measures (Community safeguard procedure)	
Obligations of Member States	Added value?
<p>1. Where, on completion of the procedure set out in Article [R31(3) and (4)], objections are raised against a measure taken by a Member State, or where the Commission considers a national measure to be contrary to Community legislation, the Commission shall without delay enter into consultation with the Member States and the relevant economic operator or operators and shall evaluate the national measure. On the basis of the results of that evaluation, the Commission shall decide whether the national measure is justified or not.</p> <p>The Commission shall address its decision to all Member States and shall immediately communicate it to them and the relevant economic operator or operators.</p>	Yes
<p>2. If the national measure is considered justified, all Member States shall take the measures necessary to ensure that the non-compliant product is withdrawn from their market, and shall inform the Commission accordingly. If the national measure is considered unjustified, the Member State concerned shall withdraw the measure.</p>	Yes
<p>3. Where the national measure is considered justified and the non-compliance of the product is attributed to shortcomings in the harmonised standards referred to in [Article R31(5)(b)], the Commission shall inform the relevant European standardisation body or bodies and shall bring the matter before the Committee set</p>	Yes

Table B2.24: Safeguard Measures (Community safeguard procedure)	
Obligations of Member States	Added value?
up by Article 5 of Directive 98/34/EC. That Committee shall consult the relevant European standardisation body or bodies and deliver its opinion without delay.	
<i>Source: Article R32, Chapter R5, Decision (EC) 768/2008</i>	

Table B2.25: Safeguard Measures (Compliant products which present a risk to health and safety)	
Obligations of Member States	Added value?
1. Where, having performed an evaluation under Article [R31(1)], a Member State finds that although a product is in compliance with this ... [act], it presents a risk to the health or safety of persons or to other aspects of public interest protection, it shall require the relevant economic operator to take all appropriate measures to ensure that the product concerned, when placed on the market, no longer presents that risk, to withdraw the product from the market or to recall it within a reasonable period, commensurate with the nature of the risk, as it may prescribe.	No
2. The economic operator shall ensure that corrective action is taken in respect of all the products concerned that he has made available on the market throughout the Community.	No
3. The Member State shall immediately inform the Commission and the other Member States. That information shall include all available details, in particular the data necessary for the identification of the product concerned, the origin and the supply chain of the product, the nature of the risk involved and the nature and duration of the national measures taken.	No
4. The Commission shall without delay enter into consultation with the Member States and the relevant economic operator or operators and shall evaluate the national measures taken. On the basis of the results of that evaluation, the Commission shall decide whether the measure is justified or not, and where necessary, propose appropriate measures.	No
5. The Commission shall address its decision to all Member States and shall immediately communicate it to them and the relevant economic operator or operators	No
<i>Source: Article R33, Chapter R5, Decision (EC) 768/2008</i>	

B2.3 Stage 3: Summary of Provisions Identified under Steps 1 and 2 and their Practical Implications

Problem Area E – Alignment with the NLF – Obligations of Economic Operators

With regards the obligations of Economic Operators; alignment with the NLF is most likely to impact the obligations of importers and distributors through the application of Articles R2 to R7. Currently the Cableways Directive does not provide specific guidance with regards the roles and responsibilities of importers and distributors. The Cableways Directive states that where obligations are not fulfilled by the manufacturer they are to be fulfilled by the company that places the product on the market. Alignment with the NLF will ensure greater transparency as importers and distributors (as well as other economic operators) will be aware of the specific role and the responsibilities of both importers and distributors. More importantly, under

the NLF, importers and distributors are obliged to ensure that the product they are marketing is suitable for the market, verify that the product has the required safety markings and accompanying documentation, and is in conformity with the Community harmonisation legislation.

The Cableways Directive does provide guidance with regards the obligations of manufacturers and their authorised representatives. However, the application of certain articles of the NLF will complement the existing framework and may provide even greater clarity.

Problem Area F – Alignment with the NLF – Criteria for Notified Bodies

With regards problem area F and the criteria for notified bodies, it is anticipated that the most important articles of the NLF Decision are Articles R23, R26 and R28. This would include revising the procedure for notification of notified bodies and reinforcing the information and other obligations of notified bodies. By aligning the Cableways Directive with the NLF, Member States will have the power to object to the notification of a new notified body (within a set time period) and the Commission will be able to challenge the competence of notified bodies. Furthermore, alignment with the NLF will encourage cooperation between notified bodies. In particular, notified bodies are required to inform each other about certification and rejections of approvals. This is already done voluntarily by some notified bodies however there are others that do not report. Other Articles of the NLF Decision which concern the criteria for notified bodies are also important; however these will complement the existing framework rather than introduce any significant changes.

Problem Area G – Alignment with the NLF – Safeguard Procedure

With regards problem area G and the safeguard procedure, it is anticipated that the most important Articles of the NLF Decision are Articles R31 to R32. By aligning the Cableways Directive with the NLF the existing safeguard clause procedure is revised. A two-step procedure is introduced and the steps to be taken by the authorities concerned, when a non-compliant subsystem and/or safety component is found are specified. A ‘real’ safeguard clause procedure (i.e. one leading to a Decision at Commission level on whether a measure is justified or not) is only launched when another Member State objects to a measure taken against a subsystem and/or safety component. Where there is no disagreement on the restrictive measure taken, all Member States must take the appropriate action on their territory.

