EUROPEAN
COMMISSION

Brussels, 2.12.2015
SWD(2015) 264 final

PART 3/3

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT

Accompanying the document

Proposal for a Directive

of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services

{COM(2015) 615 final}
{SWD(2015) 265 final}
{SWD(2015) 266 final}

TABLE OF CONTENTS

ANNEX 7: DETAILS ON THE BASELINE SCENARIO AND IMPACT ANALYSIS FOR SELECTED GOODS AND SERVICES AND PUBLIC PROCUREMENT (INCLUDING METHODOLOGY)

A - METHODOLOGICAL SUMMARY IMPACT ASSESSMENT

This section presents the methodological approach taken for the calculation of the costs of accessibility requirements and the quantitative assessment of the policy options for the priority goods and services (also referred to as "cases"), including public procurement. The aim is to describe the broad approach taken and the types of assumptions that have been made for the purpose of carrying out the estimates. Distinction is made between cases for which a "top-down" or a "bottom-up" approach has been applied for calculating the costs of accessibility. Additionally, the cases of architect services and telecommunication services are described separately as their features required a slightly different methodological approach.

1.1 General approach

1. A set of "**basic assumptions**" has been identified for each case that is necessary to carry out the problem assessment and assessment of impacts of the policy options. They vary slightly between the cases as a result of the availability of data and specifics of the market.
Examples of generally applicable basic assumptions include:

Type of figure	Source
Market volume	Based on available data, e.g. Prodcom figures or extrapolated from individual company data
Number of companies	Based on available data or extrapolated based on the share of GDP
Proportion of turnover stemming from cross-border trade	Estimates based on assumptions
Share of GDP of the countries where accessibility requirements have been evidenced or are expected to be adopted by 2020	Eurostat
Level of additional costs resulting from contradicting accessibility requirements	Estimates based on assumptions
Compound Annual Growth Rate (CAGR)	Based on available data from various sources

Further details regarding data sources and assumptions are given in the Deloitte study.

2. An **assessment of the current problem** in monetary terms. This comprises the total cost of accessibility based on one set of requirements across the EU[1], adjusted to take account of the costs to ensure accessibility of goods/services sold across borders, and the costs of understanding different accessibility requirements across borders (explained below).

3. An **assessment of the baseline scenario, i.e. the expected situation in 2020**, which takes the same approach as in step 2 and takes account of projected growth of the market for each good and service (e.g. by applying the CAGR to the total market volume 2011) and changes in the number of Member States that are anticipated to legislate for accessibility.

4. Finally, **the expected impacts (costs and benefits) of the three following policy options are assessed compared to the Baseline Scenario:** *Policy Option 2: Recommendation* (adopted either by all Member States that are expected to have adopted legislation by 2020 or only a share of them); *Policy Option 3: a Directive applicable to all the Member States that are expected to have requirements in place by 2020*; and *Policy Option 4: a Directive applicable to all Member States*.

[1] This total cost figure relates to the overall cost of accessibility that would be incurred by the industry if one general set of requirements was in place. It is related to the accessibility of the physical product only as the cost of understanding legislative requirements can be considered as negligible since the assumption for this figure is that only one set of requirements would be in place. This figure is calculated in order to be able to estimate the product-related cost to ensure accessibility of good / service sold across borders under differing national accessibility requirements and the costs of understanding these.

1.2 Assessed Goods and Services

The following table provides an overview of the **goods and services** as well as their "components" that are considered in the framework of the present study.

Good / Service	Component 1	Component 2	Component 3
Computers and Operating systems	-	-	-
Digital TV services and equipment	DTT equipment	Broadcasting services	-
Telephony services and related terminal equipment	Services	Terminal manufacturing	-
eBooks	-	-	-
Private sector websites	-	-	-
Architect Services	-	-	-
Self-service terminals	ATMs	Ticketing machines	Check-in machines
E-commerce	-	-	-
Banking services	Websites	Built environment	ATMs
Air transport services	Websites	Built environment	Check-in machines
Rail transport services	Websites	Ticketing machines	
Bus transport services	Websites	Built environment	Ticketing machines
Maritime transport services	Websites	Built environment	Ticketing machines
Hospitality services	Websites	Built environment	-
Public Procurement	-	-	-

1.3 Approach to the assessments: Top-down vs. Bottom-up

Since for each case, there are differences in the availability, detail and applicability of data, two different approaches have had to be made in order to achieve the most valid results. These two approaches can best be described as “top-down” and “bottom-up” approaches.

The main difference is that in the **top-down approach**, estimates of the costs of accessibility and the quantitative assessment of the policy options are derived from high-level market turnover figures that are broken down by (assumed) shares of accessibility costs. This approach is applied to the cases of Computers and operating systems, Terminal manufacturing, DTT equipment, Broadcasting services, Self-service terminals as well as Public procurement.

In contrast, the starting point of the **bottom-up approach** is data on the cost of accessibility per good or service. The bottom-up approach varies slightly from case to case depending on the detail of the data available for that case. It is applied in the cases of Websites, Architect services, eBooks, and Telecom services.

1.3.1 Top-down cases

1.3.1.1 General approach to estimates

A **three step-logic** lies behind the top-down approach. Each step results in a different estimate that is used both in the problem assessment and in the baseline scenario calculations.

Step 1: Estimate the total cost of accessibility based on one set of requirements in the EU;
Step 2: Estimate the costs to ensure accessibility of goods/services sold across borders; and
Step 3: Estimate the costs for understanding different accessibility requirements across borders.

Step 1: Estimate the total cost of accessibility assuming that one set of requirements is applied to the EU

The current "**on-off" development costs** (= capital expenditure (**CAPEX**[2])) **are calculated** by multiplying

- the [Total market volume in the current situation] *with*
- the [Assumed share of development costs, i.e. the costs to develop a product generally] *with*
- the [Assumed share of accessibility costs, i.e. the additional development costs of making a product accessible].

Then, the current **ongoing costs** (operational expenses (**OPEX**[3])) are calculated by multiplying

[2] CAPEX: Production-related capital expenditures that are incurred as one-off development costs for specific goods or services by all EU businesses in a specific industry sector. These costs can, in some cases, be incurred on an annual basis since technological advancement necessitates new product developments in industries such as, for example, the telecommunication terminal manufacturing industry.

- the [CAPEX] *times*
- the [Assumed share of ongoing costs].

Next, CAPEX and OPEX are summed in order to arrive at <u>the current total cost of accessibility</u> (based on one set of requirements in the EU).

<u>Formula 1</u>

[Total cost (CAPEX + OPEX) of accessibility based on one set of requirements (EU)] = CAPEX: ([Total market volume in 2011] * ([Assumed share of development costs] * [Assumed share of accessibility costs]) + OPEX: ([Total market volume in 2011] * [Assumed share of development costs] * [Assumed share of accessibility costs] * [Assumed share of ongoing costs])

<u>Step 2: Estimate the costs to ensure accessibility of goods/services sold across borders</u>

Now, in order to calculate cost to ensure the accessibility of a good or service <u>when sold across borders</u> the [total costs of accessibility] is multiplied by

- the [(assumed) proportion of turnover stemming from cross-border trade] (different requirements are only relevant for goods/services that are traded across borders)
- the [number of countries that are expected to have legislation in place by 2020] (in order to take account of the fact that EU Member States' legislation may impose different requirements on goods and services and, hence, costs are incurred several times by manufacturers and providers)
- the [respective share of EU GDP these countries account for] (to value the cost figures for the size of the market at risk of fragmentation)
- a [correction factor]

[3] OPEX: Marginal production-related operational expenditures that are incurred as on-going costs for specific goods or services by all EU businesses in a specific industry sector. These on-going costs relate, for example, to providing each produced good or service with accessibility features, as well as maintenance costs of the product, but also to labour costs. Hence, they are incurred on an annual basis by businesses.

The methodology used to derive quantitative estimates of the costs of fragmentation assumes that these costs increase with the number of Member States that adopt their own national requirements for accessibility. In practice, these national requirements will often overlap to a greater or lesser extent, so that companies will not in every case be faced with a set of completely incompatible national requirements. To take account of this overlap, a correction factor is applied to the number of Member States that are assumed to have introduced national accessibility requirements. The correction factor is specific to each good or service and is based on expert judgement, taking into account the range of possible choices Member States will have in establishing national accessibility requirements. The higher the correction factor, the greater the anticipated differences in national requirements, and the greater the level of internal market fragmentation. Thus, if the correction factor is set at its maximum value of 100%, this implies a judgment that Member States are expected to adopt totally different accessibility requirements for that good or service. A correction factor of 10%, on the other hand, would imply that national accessibility requirements are expected to overlap to a considerable extent.

The costs of accessibility for states which do already have some requirements in place, will therefore only constitute a share of the costs, linked to the correction factor, which have to be incurred by those states which will not have put respective legislation in place at all or only to a lesser extent. This is the case since it is highly unlikely that the accessibility requirements already put in place in a state would be totally different from the ones required by this *EU initiative*.

In the same vein, especially for states which already have some legislation in place containing accessibility requirements, the costs of making their goods and services accessible according to one common set of rules, is considerably less also in comparison to the initial on-off and on-going costs of making the good accessible, since the correction factor numerically depicts the fact that the added accessibility costs will almost always constitute only a fraction of these initial costs.

In some cases ranges of estimates have been applied, where there is a certain degree of uncertainty concerning the underlying assumptions, leading to lower and upper ranges.

As the correction factor is a key variable both in determining the costs of fragmentation in the baseline scenario, and of the relative benefits of reducing or eliminating fragmentation in the different policy options, a sensitivity analysis has been performed to assess how changing the correction factor affects the relative reduction in costs of fragmentation that is expected to result from each of the policy options.

Formula 2

[Cost to ensure accessibility of good / service sold across borders] = [Total cost of accessibility (CAPEX + OPEX) based on one set of requirements (EU)] * [Proportion of turnover stemming from cross-border trade] * [Number of countries in the sample for which legislation could be identified] * [Share of EU GDP of the identified countries] * [correction factor]

Step 3: Estimate the costs for understanding different accessibility requirements across borders

While the costs that are estimated as part of Step 2 reflect a more product-related cost element, i.e. costs for the physical adaptation of the product or various production processes in order to comply with national requirements, they do not take into account the organisational costs for identifying, reading and analysing national accessibility requirements in other countries.

Therefore, an additional, assumed share of [Cost to ensure accessibility of good/service sold across borders] is added in step 3 accounting for these extra costs.

Formula 3

[Costs of understanding different accessibility requirements across borders] = [Cost to ensure accessibility of good / service sold across borders] * [Additional accessibility costs due to understanding of legislation]

1.3.1.2 Baseline scenario estimates

The above three steps and formulas are then also applied, in principle, for the quantitative assessment of the baseline scenario in and until 2020.

The difference to the problem assessment calculations is that now the estimated figures for 2020 are used. Thus, the base numbers for the baseline scenario are the estimated 2020 market volume, which is estimated by multiplying the 2011 data by a projected growth rate specific to each good or service, the number of EU Member States that are expected to have legislation in place by 2020, as well as the respective share of GDP of these countries.

1.3.1.3 Quantitative assessment of the policy option

Policy Option 1: Baseline scenario

The cost in EUR of the baseline scenario is calculated as the sum of the cost to ensure accessibility of good/service sold across borders in 2020 (formula 2 using 2020 numbers) and the costs of understanding different accessibility requirements across borders in 2020 (formula 3 using 2020 numbers).

> *Formula 4*
>
> [Costs of Policy Option 1] = [Cost to ensure accessibility of good / service sold across borders in 2020] + [Costs of understanding different accessibility requirements across borders in 2020]

Policy Option 2: Recommendation

The cost or benefit of an EU Recommendation that a certain number of EU Member States will follow is also calculated based on the cost to ensure accessibility of good/service sold across borders and the costs of understanding different accessibility requirements across borders. What differs in the calculation is that the "country-factor" is reduced to take account of the reduction in the number of different standards that results from a number of Member States applying the recommendation, so that there are no additional costs of fragmentation when trading cross-border with these states.

> *Formula 5*
>
> [Saving of Policy Option 2] = [Costs of Policy Option 1 (*Formula 4*)] – [Total cost of accessibility (CAPEX + OPEX) (*Formula1*)] * [Share of Proportion of turnover stemming from cross-border trade] * [share of GDP for relevant countries] * ([number of all states relevant in the scenario] – [number of states that apply recommendation] + 1) * (correction factor) + [costs of understanding different requirements in MS (*Formula 3*)]

Policy Option 3: Directive applicable to Member States that have requirements in place

Policy Option 3 aims at harmonising requirements through a Directive applicable to Member States that regulate accessibility of the selected goods and services. Therefore, the cost or benefit in EUR is equal to the cost or benefit in EUR of the Policy Option 2 scenario, in which all Member States that are expected to have requirements in place adopt the EU Recommendation. Compared to the baseline, the costs of fragmentation due to different national requirements are eliminated completely, but firms still face the costs of making goods accessible in the Member States with accessibility requirements.

Formula 6

[Savings of Policy Option 3] = [Costs of Policy Option 1 (*Formula 4*)] – [total costs of accessibility (CAPEX+OPEX) (*Formula 1*)] * [proportion of turnover stemming from cross-border trade] * [share of GDP for relevant countries]

Policy Option 4: Directive applicable to all Member States

As Policy Option 4 aims at a full harmonisation of accessibility requirements on the EU level, further costs will have to be incurred by firms in those states which have not regulated until then, which will reduce the savings under Policy Option 3.

Formula 7

[Savings of Policy Option 4] = [Savings of Policy Option 3 (*Formula 6*)] – [Total costs of accessibility (CAPEX + OPEX) (*Formula 1*)] * (1 - [share of GDP of relevant states under Policy Option 3])

1.3.2 Bottom-up cases: General approach to estimates

1.3.2.1 eBooks

The costs in the eBooks case are based on the assumption that providing accessibility features costs 400 EUR on average per title, and that the additional marginal costs of supplying an eBook with accessibility features relative to an inaccessible eBook are zero.

In order to calculate the total cost of accessibility, this cost estimate is multiplied with the total number of eBook titles published per year which, in turn, is extrapolated from available data in the following way:

Formula 8

*[Total cost of accessibility based on one set of requirements (EU)] = [One-off costs of accessible eBooks] * (Total Number of eBook- titles published in 2011 in the EU ([Number of ebook titles published in France and Germany in 2011] / [Published printed book titles in Germany and France in 2011]) * [Number of printed book titles published in the EU in 2011])*

1.3.2.2 Websites

CAPEX and OPEX of accessibility per website are extrapolated based on the number of websites in a certain industry[4] (this is also applied for the website-subcases under online retail, hospitality, banking and transport). The number of inaccessible websites is deduced from the total number of websites in the respective market reduced by the number of accessible websites.

Then, the costs associated with accessibility are calculated by multiplying the difference between the costs of accessible websites and the costs of inaccessible websites with the number of websites that is currently expected to be inaccessible. This approach therefore does not take account of the fact that different websites may already be equipped with more or less accessibility features.

Formula 9

*[Total cost of accessibility (CAPEX + OPEX) based on one set of requirements (EU)] = ([One-off costs of accessible websites] + [Ongoing costs of accessible websites] – ([One-off costs of inaccessible websites] + [Ongoing costs of inaccessible websites])) * (Estimated number of inaccessible websites ([Total Number of websites] – [Estimated number of accessible websites]))*

1.3.2.3 Architect Services

In the case of architect services the bottom-up approach differs significantly from the top-down approach as only the costs of understanding different accessibility requirements across borders could be estimated. The main reasons for the unfeasibility of estimating costs of accessibility for an average facility were that no quantitative data on the average costs of refurbishment per type of facility could be identified and the significant differences between the facilities.

The approach taken (and also applied for the subsequent analysis under banking, hospitality and transport) extrapolates the costs of understanding different accessibility requirements across borders based on fixed average costs for architect services per working day (i.e. labour costs), the number of working days, full time equivalents (FTEs), and the number of working

[4] It is assumed that the number of websites is equal to the number of businesses in a certain industry, i.e. every business has one website.

days it takes to understand legislative requirements per project. Furthermore, the share of facilities that need to be replaced/refurbished per year and the number of facilities relevant for the case is taken into account, as well as the share of GDP for the relevant countries[5] and the share of architect services that is assumed to be procured cross-border.

Formula 10

*[Costs of understanding different accessibility requirements across borders] = [Average costs for architect services per working hour] * [Number of working days] * [Number of FTEs] * [Number of working hours per day] * [Share of facilities that need to be replaced or refurbished per year] * [Number of facilities relevant for the case] * [Share of GDP of relevant countries] * [Share of architect services that is assumed to be procured cross-border]*

No CAGR has been applied to the calculations since it is assumed that the number of facilities can be expected to remain constant until 2020.

The policy options in the case of architect services basically have been assessed in the same way as in the other cases. However, concerning policy option 2, an estimated share of 50% of Member states assumed to apply the EU-recommendation is used.

1.3.2.4 Telecommunications Services

While following the bottom-up logic as described above, the calculation of the estimates of the total cost of accessibility (CAPEX+OPEX) differs from this approach.

At first, it is assumed that these services are especially relevant for deaf citizens so that the relevant market turnover of telecom providers has been adjusted with the share of deaf people in the total population [relevant market size]. Furthermore, it has to be noted that only relay services and accessible access to emergency services for persons with disabilities is covered and are assumed to account together for 100% of the relevant market.

In the problem assessment, due to a lack of data for emergency services, the total annual costs of relay and emergency services for persons with disabilities have been extrapolated based on

[5] It has to be noted that it is assumed that all EU Member States have accessibility requirements in place. However, the number of countries is not taken into account for the calculations as the (extraopolated) number of facilities in the EU is already included.

data available for relay services only. Moreover, it has been assumed that costs for emergency services are equal to the costs for relay services.

Step 1:

a) [Share of telecom services market size that can be attributed to relay services] = [Annual cost of relay services in UK] * [Countries in which relay services are provided according to BEREC and own further research] / [Relevant market size]

b) [Share of telecom services market size that can be attributed to emergency services] = [Annual cost of relay services in UK in EUR] * [Countries in which emergency services are provided according to BEREC and own further research] / [Relevant market size]

Step 2:

a) [Market share of relay services in EUR] = [Share of telecom services market size that can be attributed to relay services (*Formula 1a*)] * [Share of GDP of the countries in which relay services are provided according to the BEREC report and further research] * [Relevant market size]

b) [Market share of emergency services in EUR] = [Share of telecom services market size that can be attributed to emergency services (*Formula 1b*)] * [Share of GDP of the countries emergency services are provided according to the BEREC report and further research] * [Total market size of the telecom services sector]

Step 3:

[Total cost of accessibility (CAPEX + OPEX) based on one set of requirements in the relevant Member States] = [Market share of relay services in EUR] + [Market share of emergency services in EUR]

Since in the current situation, telecom providers only serve national markets, businesses do not incur [Cost to ensure accessibility of good/service sold across borders] and [Costs of understanding different accessibility requirements across borders].

For the baseline scenario calculations, the problem assessment figure of the [Total cost of accessibility (CAPEX + OPEX)] has been extrapolated to a scenario in which 20 Member

States have different relay services and accessible access to emergency services in place. The further calculation process follows the same approach as the top-down cases.

B - IMPACT ANALYSIS FOR EACH SELECTED GOOD AND SERVICE AND PUBLIC PROCUREMENT

1. Computers and Operating Systems

1.2 Base figures

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	**165,000,000,000**
CAGR	4.8%
Market turnover in 2020	**251,614,397,508**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	10%
Proportion of turnover stemming from cross-border trade	50%
Share of countries in the sample for which legislation could be identified	
Sample size	9
Countries for which legislation could be identified	
In 2011	2
In 2020 (extrapolation)	6
Correction factor	25.0%
Share of GDP for relevant countries	
In 2011	21.0%
In 2020	
2 Member States have legislation in place	21.0%
6 Member States have legislation in place	33.6%

27 Member States have legislation in place	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

1.2. Effects of the problem on consumers

Computers are nowadays imperative for work, communication and entertainment and constitute an important means for consumption and relations. Furthermore, and especially from a consumer's perspective, computers can be viewed as an initial step for the accessibility chain since they enable further accessible services (assistive software, e-Commerce etc).

When manufacturers ensure on one hand provide a platform for the interoperability of peripheral devices (e.g. adaptive keyboard, Braille display, assistive software such as screen readers) with mainstream computers and operating systems, and include in the devices accessibility featuresrather than making them accessible without having to connect peripheral assistive technologies, it results in additional costssavings for the consumers. Indeed, prices of accessibility kitsassistive technologies normally double the price of mainstream accessible solutions. Incompatibility between mainstream accessible solutions with assistive technology is a problem for users who are faced with the need to invest in very expensive new assistive solutions with the releases of new mainstream technologiesones. This means that in the absence of common accessibility features in computers and operating systems, disabled consumers currently face higher costs, for purchasing peripheral assistive technologies, than other consumers.

1.3. Assessment of the impacts per policy option

1.3.1 Policy Option 1: Baseline Scenario – Impact Assessment

Table 1: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Computers and operating systems)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements covering Computers and Operating Systems can be expected to be adopted in a range from 2 to 27 Member States based on the current availability of accessibility legislation in the field of the Computers and Operating Systems and due to the obligations for the MS under the UNCRPD[6]. The mid-range scenario is 6 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the Computers and Operating Systems will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the countries are likely to have a negative impact on the industry.
Overall score	0	0	
Average score	0	0	

Table 2: Impacts of Policy Option 1 (Baseline Scenario, Computers and operating systems)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning Computers and Operating Systems is likely to have a positive impact on the level of accessibility of computers. This means that more disabled people are likely to be able to have access to computer-based online services such as eGovernment services, online banking services or eCommerce provided through Computers and

[6] Based on an examination of the current situation in nine Member States, technical accessibility legislation has been for 2 Member States Spain and Italy.

Assessment criteria	Rating	Explanation
		Operating Systems. **Elderly** While it can be expected that the take-up by elderly of Computers and Operating Systems will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible Computers and Operating Systems are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility needs among the elderly population is considerably higher than that of the rest of the population the actual number of people that will likely benefit is still considerably high. **General population** The level of accessibility of Computers and Operating Systems is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	The level of accessibility of Computers and Operating Systems for is not likely to have any major environmental impacts. Potentially, less paper-based processes will result from the increased use of Computers and Operating System.
Overall score	0	
Average score	0	

1.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 3: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Computers and operating systems)

Policy specific Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
Overall score	3	2	6	6	8	4

Policy specific Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
Average score	1.5	1	3	3	4	2

Table 4: Impacts of Policy Options 2, 3 and 4: Rating (Computers and operating systems)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓	✓✓
Environmental impacts	0	0	0

Table 5: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Computers and operating systems))

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure the accessibility of Computers and Operating Systems in terms of their user interface, functionality and information about those features: • image and turnover; and • the interfacing of the good with assistive devices.	It is assumed that a range of two to all of those countries (6) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those six countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group. It is expected that the cross-border trade could increase.	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 21 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. two to six countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the impact is expected to be low given that the market for computer and operating systems is dominated by a limited number of global companies.	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. six countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With six Member States, representing 33.6% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be low given that the market for computer and operating system is dominated by a limited number of global companies.	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for computers and operating systems is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be low given that the market for computers and operating systems is dominated by a limited number of global companies.
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible Computers and Operating Systems in terms of their user interface, functionality and information about those features:	The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use computers and operating systems cross-border in countries where accessibility requirements are in place would also benefit. The introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.	The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Environmental impacts	*No explicit requirements.*	Improving accessibility of Computers and Operating Systems may lead to a minor environmental impact due to less paper-based processes, but more electricity consumption. In sum, the level of accessibility of Computers and Operating Systems is not likely to have any major environmental impacts.		

2. Television

2.1. Base figures

2.1.1. Digital Television (DTT) equipment

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	2.200.000.000
CAGR	1,8%
Market turnover in 2020	2.493.241.091
Share of one-off development costs	0,1%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	8
In 2020 (extrapolation)	
Only baseline scenario: see legislative analysis	24
Extrapolation to EU level	27
Share of GDP for relevant countries	
In 2011	
8 Member States have legislation in place	76,6%
In 2020	
8 Member States have legislation in place	76,6%
24 Member States have legislation in place	96,3%
27 Member States have legislation in place	100,0%

Correction factor	15,0%

2.1.2. TV broadcasting accessibility services

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	84.700.000.000
CAGR	3,6%
Market turnover in 2020	116.445.097.542
Share of development costs	10%
Share of accessibility costs	10%
Share of on-going costs	0%
Share of turnover stemming from cross-border trade	20%
Number of countries in the sample for which legislation could be identified	
Sample size	9
As identified in country sample	8
Only baseline scenario: see legislative analysis	24
Extrapolation to EU level	27
Share of GDP for relevant countries	
In 2011	
8 Member States have legislation in place	88,9%
In 2020	
8 Member States have legislation in place	80,0%
24 Member States have legislation in place	96,8%
27 Member States have legislation in place	100,0%

Correction factor	20,0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1,0%

2.2. Effects of the problem on consumers

Research suggests that the availability of broadcasting in terms of coverage is nearly complete, with practically the whole planet covered by a signal . However, television is far from being fully accessible to persons with disabilities. In spite of barriers encountered even when using the related equipment such as set-top boxes and remote controls, the majority of persons with disabilities are consumers of TV programming. Disabled persons are dependent of the provision of access services such as subtitles and audio description to be able to enjoy TV programming on equal basis with others. They also need accessible electronic programming guides, user interfaces, remote controls...

Notwithstanding variances in the levels of accessibility services that broadcasters are obliged to provide, customers with disabilities may also be faced with technical issues on how these access services are supported by digital TV equipment. There is a large variance in the degree to which the disables' groups benefit from and require accessible features in the equipment and the availability of access services. For many deaf or hard of hearing users, a lack of access to captions results in no possibility of perceiving the spoken content in a programme. For many blind people it is completely impossible to use on-screen menus without text-to-speech support.

Common accessibility solutions in the EU for broadcasting services and receivers including remote controls will permit disabled consumers to be able to watch television when travelling to other EU countries using familiar accessible equipment or to enjoy their prefer foreign channel at home.

2.3. Assessment of the impacts per policy option

2.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 6: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Television)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements covering both DTT equipment and broadcasting services can be expected to be adopted in a range from 8 to 27 Member States based on the current availability of accessibility legislation under the UNCRPD. The mid-range scenario is 24 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the DTT equipment will be provided across-borders in 2020. With regard to the cross-border provision of broadcasting services, the percentage is, on average, 19. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the countries are likely to have a negative impact on the industry.
Overall score	0	0	
Average score	0	0	

Table 7: Impacts of Policy Option 1 (Baseline Scenario, Television)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning DTT equipment and broadcasting services is likely to have a positive impact on the level of accessibility of both goods and services. This means that more disabled people are likely to be able to have access TV through DTT equipment and broadcasting services. **Elderly** The take-up of elderly of TV broadcasting and DTT equipment is expected to be relatively higher than the rest of the population, therefore the types of benefits that result from accessible TV broadcasting and DTT equipment are likely to be higher for the group of elderly people. Therefore, it is expected that the anticipated increase in the level of accessibility will benefit elderly more than disabled consumers. **General population** The level of accessibility of DTT equipment and broadcasting services is unlikely to have any major impacts on non-disabled persons. However benefits for example from subtitles for learning foreign languages remain important.

Assessment criteria	Rating	Explanation
Environmental impacts	0	The level of accessibility of DTT equipment and broadcasting services is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

2.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Digital Terrestrial Television (DTT) equipment

Table 8: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (DTT, Television)

Policy Objectives (Assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
Overall score	3	2	6	6	8	4
Average score	1.5	1	3	3	4	2

Table 9: Impacts of Policy Options 2, 3 and 4: Rating (DTT, Television)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	✓	✓✓	✓✓(✓)
Environmental impacts	0	0	0

Linear TV broadcasting accessibility services

Table 10: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Broadcasting, Television)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓✓(✓)	✓✓(✓)	✓✓✓	✓✓✓	✓✓✓✓	✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓✓(✓)	✓✓(✓)	✓✓✓	✓✓✓	✓✓✓✓	✓
Overall score	5	5	6	6	8	2
Average score	2.5	2.5	3	3	4	1

Table 11: Impacts of Policy Options 2, 3 and 4: Rating (Broadcasting, Television)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	✓	✓✓	✓✓(✓)
Environmental impacts	0	0	0

Table 12: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Television)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure the accessibility of DTT equipment mainly in terms of their user interface and remote controls a well as their capacity related to subtitles and audio description and their interoperability with assistive technology and in services mainly on subtitles and audio description and other functionality addressing the needs of persons with disabilities. .	It is assumed that for both DTT equipment and broadcasting services a range of eight to all of those countries (24), that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50% for DDT equipment.	Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 24 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group. It is expected that the cross-border trade could increase up. .	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 3 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. eight to 24. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market.	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 24 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 24 Member States, representing 96.3% (in the case of DTT equipment) or 96.8% (in the case of broadcasting services) of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market.	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for DTT equipment and broadcasting services is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3).
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible DTT equipment in mainly terms of their user interface and remote controls a well as their capacity related to subtitles and audio description and their interoperability with assistive technology and in services mainly on subtitles and audio description and other functionality addressing	The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use accessible DDT equipment and broadcasting services cross-border in countries where accessibility requirements are in place would also benefit. The introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.	The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
	the needs of persons with disabilities..			
Environmental impacts	*No explicit requirements.*	Improving accessibility of DTT equipment and broadcasting services is not expected to have significant environmental impacts.		

3. Telecommunications (telephony services and related terminal equipment)

3.1. Base figures

3.1.1. Telephony Services

Problem Assessment (2011) and Baseline Scenario (2020)	
Total Market turnover in 2011	274.900.000.000
Share of deaf people	4,78%
Total relevant market size in 2011	13.140.220.000
CAGR	0,26%
Total relevant market size in 2020	13.450.918.428
Annual cost of relay services (in the UK)	10.101.945
Countries in which relay services are provided according to BEREC and own further research	7
Countries in which emergency services are provided according to BEREC and own further research	10
Share of GDP of Member States in which a service is provided in 2011	
Relay services	56,8%
Accessible emergency services	43,2%
Share of GDP of Member States in which a service is provided in 2020	
Relay services	100,0%
Accessible emergency services	100,0%

Proportion of turnover stemming from cross-border trade	30%
Number of relevant countries in 2020	
PO1 and PO3	20
PO2	15
PO4	27
Total EU share of GDP	100%
Number of countries in Eu27	27
Average share per country	3,7%
Share of GDP for 2020	
PO1 and PO3	74,1%
Hypothetical PO2	55,6%
Hypothetical PO4	100,0%
Additional accessibility costs due to different requirements in Member States (understanding of legislation)	1%
Correction factor	100%

3.1.2. Related Terminal equipment

Problem Assessment (2011) and Baseline Scenario (2020)	
Smart phone Market turnover in 2011	31.659.436.588 €
Share of unit sales in 2011	
Smart phones	31,8%
"Feature phones"	68,2%
"Feature phones" Market turnover in 2011	67.823.264.560
Total Market turnover in 2011	99.482.701.147

CAGR	6,3%
Market turnover in 2020	172.403.845.812
Share of development costs (analogy to computers case)	5%
Share of accessibility costs (analogy to computers case)	1%
Share of ongoing costs (analogy to computers case)	10%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	3
In 2011	3
In 2020 (extrapolation)	
As identified in country sample	3
Only baseline scenario: see legislative analysis	6
Extrapolation to EU27 level	27
Share of GDP for relevant countries	
In 2011	
3 Member States have legislation in place	23,5%
In 2020	
3 Member States have legislation in place	23,5%
6 Member States have legislation in place	43,6%
27 Member States have legislation in place	100%
Correction factor	25%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1%

3.2. Effects of the problem on consumers

Disabled consumers can currently not benefit of a genuine Internal Market for accessible mobile telecommunication devices and services. The limited technical accessibility requirements in most EU Member States lead to an insufficient integration of accessibility features in mainstream mobile telecommunication devices and services. In addition, where such accessibility features are provided in mobile devices, they are not necessarily interoperable across brands, across service operators or across borders due to a lack of EU level standardisation. Interoperability issues – notably when travelling across national borders within the Internal Market – may worsen in future with the introduction of diverging national technical accessibility requirements intended to ensure the compliance with the UNCRPD. Users with disabilities will benefit from being able to call cross border with friend family and for work either directly or using relay services. They will be able to call the emergency number when travelling to other Member State and will be able to use the mobile devices and related services with similar accessibility features.

3.3. Assessment of the impacts per policy option

3.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 13: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Telephony services)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Currently, in the EU a number of Member States have implemented accessible telecommunication services through a number of different measures including relay services and accessible emergency services. However, the interoperability of these services across borders is not ensured nor addressed. In the current situation this leads to barriers for consumers who cannot make use of these services across borders. Also Industry that wants to offer their services in other Member States needs to adapt their accessibility solutions. Ensuring cross border interoperability of Total conversations solutions for example to be used in emergency services would require adaptation to national technical rules. In the baseline scenario the assumption has been made that 20 Member States would have in place relay services and accessible emergency services based on different standards and solutions and that these Member States would act to make their services interoperable without agreement on a common standard. As to the magnitude of the impacts of the varying solutions and standards for these services, it is assumed that 30% of the telephony for the relevant market occurs

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			across borders. It is expected that the differences between national services have a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	Given that relay services and emergency services are organised centrally at national level this is not expected to have any impact on competition of those specific solutions but this could be an issue if companies would decide to market these solutions as part of their mainstream products for example competing with messaging.
Overall score	0	0	
Average score	0	0	

Table 14: Impacts of Policy Option 1 (Baseline Scenario, Telephony Services)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** In the baseline scenario the assumed evolution of Member States making relay services and accessible emergency services interoperable would mean that people with a disability would now be able to access these services on an equal basis compared to other consumers including cross border and communicate with services providers using their preferred solution. **Elderly** As far as the elderly population is considered the group that would benefit by gaining access to telecommunication services on an equal basis compared to other consumers would be mainly those elderly that have some type of hearing impairment. **General population** It is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	The cross-border interoperability and availability of relay services and accessible emergency service terminals is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

3.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 15: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Telecommunication Services)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	0	0	0	0
Overall score	1	1	3	3	4	3
Average score	0.5	0.5	1.5	1.5	2	1.5

Table 16: Impacts of Policy Options 2, 3 and 4: Rating (Telecommunication Services)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓✓	✓✓✓
Environmental impacts	0	0	0

3.3.3. Policy Option 1: Baseline Scenario – Impact Assessment

Table 17: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Telephony Mobile Terminals)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Currently, in the EU accessibility requirements covering Terminals has been placed through telecommunications operators and focuses on public pay phones and fixed phones. These types of terminals are becoming obsolete and are being replaced by mobile devices. Furthermore, the Mobile Terminals market is a global one and accessibility requirements established in the United States under Section 255 have impacts at a global scale. The United States is reviewing the accessibility requirements and introducing new ones in the 21st Century Communications and Video Accessibility Act. This will lead to new accessibility requirements for mobile terminals. It is this expected that Member States, in order to fulfil their obligations under the UN Convention will shift their focus to the accessibility of mobile telephony terminals. Cross-border trade barriers might arise if Member States would regulate in this area up to 2020 based on their commitments under the UNCRPD. Furthermore, due to the likely future changes in the United States the industry may face new costs to ensure accessibility of mobile terminals. Barriers to trade would occur if Member States would adopt accessibility requirements that differ from those established in the United States. Therefore, in the baseline scenario the assumption has been made that 6 Member States would introduce different accessibility requirements by 2020. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the Mobile Terminals will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	Possible variations between national technical accessibility requirements are likely to make it difficult for industry and new market entrants, in particular, to engage in cross-border trade. Such differences in accessibility requirements in the countries are likely to have a negative impact on the industry in particular in terms of costs.
Overall score	0	0	
Average score	0	0	

Table 18: Impacts of Policy Option 1 (Baseline Scenario, Telecommunication Mobile Terminals)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The ongoing revision of accessibility requirements in the United States and the countries that are assumed to adopt accessibility requirements concerning Mobile Terminals is likely to have a positive impact on the level of accessibility. This means that more people with a disability will have access to mobile telephony means. **Elderly** While it can be expected that the take-up by elderly of Mobile Terminals will increase by 2020, it is still expected that it will not be at the same level as younger consumers. The types of benefits that result from accessible Mobile Terminals are likely to be similar to those of disabled people. **General population** The level of accessibility of Mobile Terminals is unlikely to have any major impacts on non-disabled persons although some accessibility features will help people ion the move.
Environmental impacts	0	The level of accessibility of Mobile Terminals is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

3.3.4. Policy Options 2, 3 and 4 – Impact Assessments

Table 19: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Telephony Mobile Terminals)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓	✓✓

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
Overall score	3	2	6	6	6	4
Average score	1.5	1	3	3	3	2

Table 20: Impacts of Policy Options 2, 3 and 4: Rating (Telephony Mobile Terminals

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓	✓✓
Environmental impacts	0	0	0

Table 21: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (services)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Accessibility feature of telephony services would be available across the EU and in particular relay services and emergency services would be made interoperable and accessible in terms of the technical characteristics of their applications, user interface and information about accessibility features.	For telephony services 20 countries are assumed to put in place accessible services basing on relay services and emergency services by 2020 (as assumed in the baseline scenario). It is assumed that 15 will follow the Recommendation to make these interoperable across borders. Costs related to diverging national solutions and standards are expected to decrease accordingly. This may in turn have a positive impact on cross-border use. In the baseline scenario, cross-border trade has been fixed at 30%.	Under this policy option common accessibility for telephony services and in particular relay services and emergency services and the mutual recognition principle would be applicable in those 20 countries that are assumed to have these services in place by 2020. This would result in a reduction of those costs for business that are due to variations between national standards and solutions. This would mean that based on the remaining differences between solutions and standards between countries higher costs are still incurred. Similar to PO2, it is expected that the cross-border use could increase.	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 7 countries that are assumed not to have accessible telephony services and in particular relay services and emergency services in place by 2020 would face additional costs for putting these in place. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border use.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		N/A	N/A	N/A
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible telephony services and in particular relay services and emergency services in terms of the technical characteristics of their applications, user interface and information about accessibility features.	The benefits would be limited to those countries where accessible telephony services and in particular relay services and emergency services are assumed to be in place and made interoperable. Consumers that use these services cross-border would benefit. The introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.	The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have accessible telephony services and in particular interoperable relay services and accessible emergency services in place.	The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.
Environmental impacts	*No explicit requirements.*	Improving accessibility of Mobile Terminals is not expected to have significant environmental impacts.		

Table 22: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Telecommunication Mobile Terminals)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure the accessibility of Mobile Terminals in terms of their user interface, interoperability with assistive solutions and information on their accessibility.	For Mobile Terminals a range of 3 to 6 countries are assumed to adopt technical accessibility requirements by 2020 (as assumed in the baseline scenario). It is assumed that some or all of these countries will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50% for Mobile Terminals.	Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 6 countries that are assumed to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group. Similar to PO2, it is expected that the cross-border trade could increase.	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 21 countries that are assumed not to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. three to six countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the impact is expected to be low given that the market for Mobile Terminals is dominated by a limited number of global companies.	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. six countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With six Member States, representing 43.6% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be low given that the market Mobile Terminals is dominated by a limited number of global companies.	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for Mobile Terminals is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3).
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible Mobile Terminals in terms of their user interface, interoperability with assistive solutions and information on their accessibility.	The benefits would be limited to those countries where accessibility requirements are assumed to be in place. Consumers that use accessible Mobile Terminals cross-border in countries where accessibility requirements are in place would also benefit. The introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.	The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Environmental impacts	*No explicit requirements.*	Improving accessibility of Mobile Terminals is not expected to have significant environmental impacts.		

4. eBooks

4.1. Base figures

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	798.000.000
CAGR	11,0%
Market turnover in 2020	2.041.313.466
One-off costs for eBooks accessibility features (per title)	400
Published eBook titles in Germany & France (in 2011)	47.000
Published printed book titles in France & Germany (in2011)	123.950
Number of printed book titles published in 2011 in the EU	530.000
Total annual accessibility costs for eBook titles published in EU in 2011	80.387.253
Share of turnover stemming from cross-border trade	10,0%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	7
In 2020 (extrapolation)	
As identified in country sample	3
Only baseline scenario: see legislative analysis	21
Extrapolation to EU level	27

Share of GDP for relevant countries	
In 2011	
7 Member States have legislation in place	77,0%
In 2020	
7 Member States have legislation in place	77,0%
21 Member States have legislation in place	93,1%
27 Member States have legislation in place	100,0%
Correction factor	30,0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1,0%

4.2. Effects of the problem on consumers

Compared to the USA, the mainstream market for eBooks in Europe is less mature . Some authors have argued that this can be explained by relatively few affordable e-readers, insufficient availability of eBooks (as compared to the print offering), and too high prices for eBooks in Europe. In immature markets, the specific needs of smaller customer sub-groups such as blind or dyslexic people are often not sufficiently taken into account, because market players first focus on the most profitable target groups. Where no legal obligations exist, the incentives for market players to invest in accessibility features remain very limited. As a result, disabled consumers are insufficiently served by the market.

Publishers still discuss the merits of different file formats. Formats are especially important to consumers, as few eReader or eBook companies in Europe provide full interoperability with all formats available on the market. This means that consumers have to be aware of the file type and compatibility with their own devices as well as the accessibility features they contain. In some cases the accessibility features which are needed for blind persons to operate text-to-speech programmes are not ensured. End users will benefit from accessible electronic version of books without the need to retrofit the books adding the recorder voice as it is happening now as for example text to speech and the software/reader will support this facility.

4.3. Assessment of the impacts per policy option

4.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 23: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, E-Books)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements can be expected to be adopted in a range from 7 to 27 Member States based on the growing market of eBooks, the current availability of accessibility legislation in the field of copyrights and due to the obligations for the MS under the UNCRPD[7]. The accessibility requirements are likely to vary between the MS, leading to barriers for businesses and resulting in costs (relating to in particular the need to understand the accessibility requirements in other countries and necessary adaptations to the good). No specific information concerning the potential content of this legislation is available. It can be assumed that some of these MS will only regulate the private or the public eBook market. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the trade in eBooks will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade.
Overall score	0	0	
Average score	0	0	

[7] Based on an examination of the current situation in nine Member States, technical accessibility legislation has been identified for educational books in Italy. Other Member States have made use of the exceptions under the copy right legislation.

Table 24: Impacts of Policy Option 1 (Baseline Scenario, E-Books)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The accessibility of eBooks for disabled persons depends on a number of factors, including the format of the eBook and the degree to which this incorporates accessibility features. The accessibility of information on the accessibility of the eBooks is another factor that may impact on the (cross-border) purchasing of eBooks by disabled persons. As concerns the current situation, the accessibility of the formats eBooks are provided in varies. ePub is considered as state of the art in terms of accessible eBooks formats. While this format is supported by many eReaders, one of the most popular eReaders, the Amazon Kindle, does not, for example, support this format. An overall positive development in relation to the accessibility of eBooks is expected by 2020 as the market is still relatively new and rather rapid progress in relation to the technical functionalities – including the accessibility features – of the product is expected over the next years. As noted above, according to the MeAC2 study, the current level of accessibility of eBooks in the EU is medium; the average among the countries surveyed being 32%. In line with technological development and the general development of the eBook market, it is expected that the accessibility will increase up to 40% or 50% by 2020. The take up rate has been estimated to be app. 13% by non-disabled persons and 10% by disabled persons, thus there is an estimated gap of app. 3%. It can be assumed that the take-up rate will increase up to 20 to 30% by 2020. **Elderly** Elderly are likely to consume less eBooks than younger consumers due to their more limited use of the Internet and ICT products. It is likely that there will be a positive trend in terms of the use of eBooks by elderly by 2020, in line with general consumption trends of eBooks among the general population and ICT in "overall" by elderly. Problems and needs for elderly in relation to the accessibility of eBooks are likely to be similar to those of disabled persons, depending on their functional limitations. **General population** The level of accessibility of eBooks is unlikely to have any impacts on non-disabled persons although a lot of people benefit from some of the features for example related to screen enlargement.
Environmental impacts	0	Printed books and eBooks both leave an environmental footprint. The per book impact compared to printed books depends on user behaviour and the number of eBooks consumed. It can be noted that the energy used when reading eBooks is estimated to be relatively small compared to manufacturing the device. The average printed book is responsible for app. 4 KG of greenhouse gas emissions. According to estimates, any reader would have to offset 32 to 42 printed books to break even as regards the carbon footprint. It is expected that the consumption of eBooks will increase up until EU2020. A CAGR of 36.6% has been estimated. Clearly, this will have positive environmental impacts, including due to the availability of accessible eBooks. The extent of impacts by 2020 will in

Assessment criteria	Rating	Explanation
		addition to the consumption of eBooks be affected by the production of eReaders and the degree to which they are manufactured in an environmentally friendly way or not.
Overall score	0	
Average score	0	

4.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 25: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (E-Books)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
Overall score	3	1	6	6	8	4
Average score	1.5	1	3	3	4	2

Table 26: Impacts of Policy Options 2, 3 and 4: Rating (E-Books)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	0	✓(✓)	✓(✓)
Environmental impacts	0	0	(✓)

Table 27: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (eBooks)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible information concerning the good / service • Accessible online related applications • Accessible functions in the operation of the service targeted to address the needs of persons with functional limitations	It is assumed that one third (six) to all of those countries (21) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%.	Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 18 countries that are expected to have accessibility requirements in place by 2020. This would result in an elimination of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a large consumer group. It is expected that the cross-border trade could increase.	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those nineteen countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 3 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market.	Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 7 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 7Member States transposing this Directive it is expected that new market entry is likely to increase competition due to lower costs and an effective increase of the market.	Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible eBooks is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible eBooks.
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Information concerning the accessibility of the good / service; • Online-related applications; • Functions in the operation of the service targeted to address the needs of persons with functional limitations	The benefits would be limited to those countries where accessibility requirements are in place. Consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. The introduction of the relevant accessibility requirements is likely to have a limited positive impact on take up rates.	Disabled consumers across the EU would have access to accessible eBooks. Due to the increased competition that would result, prices may be reduced compared to the baseline scenario. The introduction of the relevant accessibility requirements is likely to have a relatively strong positive impact on take up rates.	The benefits are similar to those that can be expected to result due to the introduction of PO2.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Environmental impacts	*No explicit requirements.*	The expected increase in trade is likely to have an impact on the number of eBooks sold and used, which will leave an environmental footprint. The impact is likely to be particularly high under those policy options where the strongest impacts on competition are expected, since this is likely to result in reduced sales prices and higher sales turnovers. Based on this line of argumentation, the environmental impact is expected to be most significant under PO4, followed by PO3 and PO4. All options are likely to lead to an increase compared to the baseline scenario. Due to a lack of data it has not been possible to calculate the impact in quantitative terms.		

5. Private sector websites

5.1. Base figures

Figures are provided as websites are key enablers for the accessibility of services and are needed to calculate costs related to the services in coming sections

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	251,464,000,000
CAGR	0%
Market turnover in 2020	251,464,000,000
One-off costs of accessible websites: (WCAG 2.0)	50.128
Ongoing costs of accessible websites: (WCAG 2.0)	1.989
Number of businesses in EU	936.915
Number of Spanish Businesses to which Spanish accessibility legislation applies	
Hospitality services	21000
Online retail	74699
Banking services	64
Bus transport	7475
Air transport	71
Maritime transport	218
Rail transport	32
Share of Spanish Businesses to which Spanish accessibility legislation applies	
Hospitality services	50,0%
Online retail	50,0%
Banking services	90,0%
Bus transport	1,0%
Air transport	95,0%

Maritime transport	5,0%
Rail transport	90,0%
Total Number of businesses in Spain to which Spanish accessibility legislation applies	48089
Share of turnover stemming from cross-border trade	10%
One-off costs of non-accessible websites	33.317
Ongoing costs of non-accessible websites	500
Number of accessible websites	
Lower range estimate	8.656
Upper range estimate	28.950
Number of inaccessible websites	
Lower range estimate	19.139
Upper range estimate	39.433
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
EU level	3
Using additional data	12
Share of GDP for relevant countries	
In 2011	
1 Member States has legislation in place	8,5 %
In 2020	
3 Member States have legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%

Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5.0%

5.2. Effects of the problem on consumers

Through the use of websites, consumers are able to collect and compare information, purchase products or book services, and take care of their financial matters while for businesses, websites can be seen as a means to get into contact with consumers, advertise their products (in the widest sense), and also to be able to cut personnel costs. Hence, modern economy and societal life are not any longer thinkable without the Internet and the broad use of websites. This applies in particular to transport, online retail, banking, and hospitality services since those are sectors that affect the everyday life of consumers and are a viable part of the EU economy.

6. Architect Services

6.1. Base figures

Figures are provided as websites are key enablers for the accessibility of services and are needed to calculate costs related to the services in coming sections

Problem Assessment (2011) and Baseline Scenario (2020)	
Turnover in 2011	14.525.640.676
CAGR	0%
Turnover in 2020	14.525.640.676
Average costs for architect services per working hour	70
Number of working days	2
Number of FTEs	1
Number of working hours/day	8
Share of facilities that need to be replaced / refurbished per year	5,0%
Number of facilities relevant for the case in the problem assessment	578451
Share of architect services that is assumed to be procured cross-border	40,0%
Number of Member States that is expected to have legislation in place	27
Share of total EU GDP	100%
Share of Member States that is expected to apply the eventual EU Recommendation	50%
Correction factor	100,0%

6.2. Effects of the problem on consumers

All EU Member States require built environment elements used in the provision of the services concerned to be designed to be accessible for persons with disabilities. Nevertheless, technical specifications for the accessibility requirements (for example with regard to ramps, doors, toilet room free space and stair cases) vary across Member States. The divergence of these requirements creates uncertainty for customers and limits the free movement of disabled persons and elderly persons.

Detailed impacts on consumers are considered in the cases covering hospitality services and transport services.

7. Self-Service Terminals

7.1. Base figures

SSTs: ATMs

Problem Assessment (2011) and Baseline Scenario (2020)	
Total production value of SSTs PRODCOM code 26201200 in 2011	222,335,531
Share that can be attributed to SSTs	66%
SSTs value in 2011	146,741,450
Share of production value that can be attributed to ATMs	65%
Market turnover in 2011	**95.381.943**
CAGR	0.0%
Market turnover in 2020	**95.381.943**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries for which legislation could be identified	
Sample size	9
In 2011	5
In 2020 (extrapolation)	
As identified in country sample	5
Only baseline scenario: see legislative analysis	10

Extrapolation to EU level	15
Share of GDP for relevant countries	
In 2011	
5 Member States have legislation in place	54.3%
In 2020	
5 Member States have legislation in place	54.3%
10 Member States have legislation in place	73.2%
15 Member States have legislation in place	75,1%
27 Member States have legislation in place	100.0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

SSTs: Ticketing machines

Problem Assessment (2011) and Baseline Scenario (2020)	
Total production value of "Point-of-sale terminals, ATMs and similar machines capable of being connected to a data processing machine or network" PRODCOM code 26201200	222,335,531
Share that can be attributed to SSTs	66%
SSTs value in 2011	146,741,450
Share of production value that can be attributed to ATMs	30%
Market turnover in 2011	44.022.435
CAGR	0%
Market turnover in 2020	**44.022.435**

Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries for which legislation could be identified	
Sample size	9
In 2011	6
In 2020 (extrapolation)	
As identified in country sample	6
Only baseline scenario: see legislative analysis	9
Extrapolation to EU level	18
Share of GDP for relevant countries	
In 2011	
6 Member States have legislation in place	62,8%
In 2020	
6 Member States have legislation in place	62,8%
9 Member States have legislation in place	68,5%
18 Member States have legislation in place	84,1%
27 Member States have legislation in place	100,0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

SSTs: Check-in machines

Problem Assessment (2011) and Baseline Scenario (2020)	
Total production value of "Point-of-sale terminals, ATMs and similar machines capable of being connected to a data processing machine or network" PRODCOM code 26201200	222.335.531
Share that can be attributed to SSTs	66%
SSTs value in 2011	146.741.450
Share of production value that can be attributed to ATMs	5%
Market turnover in 2011	7.337.073
CAGR	0.0%
Market turnover in 2020	**7.337.073**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	6
In 2020 (extrapolation)	
As identified in country sample	6
Only baseline scenario: see legislative analysis	9
Extrapolation to EU level	18
Share of GDP for relevant countries	

In 2011	
6 Member States have legislation in place	62,8%
In 2020	
6 Member States have legislation in place	62,8%
9 Member States have legislation in place	68,5%
18 Member States have legislation in place	84,1%
27 Member States have legislation in place	100,0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

7.2. Effects of the problem on consumers

Disabled consumers find barriers in two dimensions of SSTs (including ATMs): on the one hand, the physical setting and surrounding of the machine and on the other, the design and usability of the interface. Senior consumers, disabled and other would benefit by an increase in the accessibility level of SSTs. They would be able to fully operate SSTs in a fast and independent way, enhancing their self-esteem and autonomy. Indeed, ATMs are linked to a key resource in every individual's life – capital – and if they are inaccessible, an important segment of consumers can be excluded from financial services and an equal participation in the economic life . Such terminals can also reduce transaction and staffing costs, and increase customer service and satisfaction . For instance, providing accessible ATMs reduces the costs of banking operations supported by disabled persons that previously depended on assistance by a clerk.

In general, people with a disability and elderly are not seen as a relevant consumer group by the STT operators, and thus, their specific needs are often disregarded. However, since around 80 million people and a third of the population aged over 75 have some disability (and the number is set to increase given the ageing of the European society), the need for accessible STTs is already currently significant and it will be even more so in the near future.

7.3. Assessment of the impacts per policy option

7.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 28: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, SSTs)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements covering Self-service terminals (SST) including ATMs can be expected to be adopted in a range from 9 to 27 Member States based on the current availability of accessibility legislation in the field of the built environment in relation to banks and due to the obligations for the MS under the UNCRPD[8]. The mid-range scenario is 15 countries for ATMs. For check-in machines and ticketing machines accessibility requirements can be expected to be adopted in a range from 9 to 27 Member States, where the mid-range scenario is 18 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the SSTs will be provided across-borders in 2020.It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the countries are likely to have a negative impact on the industry.
Overall score	0	0	
Average score	0	0	

Table 29: Impacts of Policy Option 1 (Baseline Scenario, SSTs)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning ATMs is likely to have a positive impact on the level of accessibility of ATMs. This means that more disabled people are likely to be able to have access to banking services provided through ATMs. It is estimated that there is a cost difference between transactions based on ATMs and those not using ATMS. These costs differences are assumed

[8] Based on an examination of the current situation in nine Member States, technical accessibility legislation has only been identified for a niche market in Italy. No problems in relation to cross-border trade due to these technical accessibility requirements have been identified in the current situation.

Assessment criteria	Rating	Explanation
		to be accrued by people with disabilities. Similarly, benefits from using check-in machine or ticketing machines stem from the cost difference between tickets purchased at ticket offices and tickets purchased at ticketing machines that actually is saved by consumers with disabilities. **Elderly** While it can be expected that the take-up by elderly of ATMs and SSTs in the area of transport will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible SSTs are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility needs among the elderly population is considerably higher than that of the rest of the population the actual number of people that will likely benefit is still considerably high. **General population** The level of accessibility of SSTs is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	The level of accessibility of SSTs for is not likely to have any major environmental impacts. Apart from ATMs based on the assumption that less paper-based processes will result from the increased use of ATMs for banking transactions.
Overall score	0	
Average score	0	

7.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 30: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (SSTs)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓	✓	✓✓	✓✓	✓✓✓	✓✓✓

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
Overall score	2.5	2	5	5	7	5
Average score	1.25	1	2.5	2.5	3.5	2.5

Table 31: Impacts of Policy Options 2, 3 and 4: Rating (SSTs)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓✓	✓✓✓
Environmental impacts	0	0	0

Table 32: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (SSTs)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure the accessibility of the good in terms of the characteristics mentioned above namely user interfaces and functionality. •	It is assumed that: • for ATMs a range of nine to all of those countries (15), and • for check-in and ticketing machines a range of nine to all of those countries (18), that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 15 (in the case of ATMs) and 18 (in the case of ticketing and check-in machines) countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group (based on the assumption that in the banking and transport sector accessible SSTs will be demanded). It is expected that the cross-border trade could increase up to 60% (15 or 18 countries).	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 12 or 9 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.
To increase competition among industry in the area of selected goods and services and in the area of public		Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. nine to 15 or 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 15 or 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been	Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
procurement		been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies.	removed, more companies may enter the market. With 15 or 18 Member States, representing 75.1% or 84.1% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies.	been removed, more companies may enter the market. Under this policy option the Internal Market for SSTs is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies and the market in particular for ATMs is not likely to grow significantly.
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible SSTs in terms of the characteristics mentioned above namely user interfaces and functionality.	The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use SSTs cross-border in countries where accessibility requirements are in place would also benefit, although this number is estimated to be relatively low. The introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced transaction costs. Elderly people travelling would also benefit.	The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.
Environmental impacts	*No explicit requirements.*	Improving accessibility of ATMs could lead to an environmental impact based on the conducting of transactions through ATMs electronically leading to a less paper-based process. The level of accessibility of check-in and ticketing machines is not likely to have any major environmental impacts.		

8. eCommerce

8.1. Base figures

Problem Assessment (2011) and Baseline Scenario (2020)	
Private sector websites market turnover in 2011	251.464.000.000
CAGR	0,0%
Private sector websites market turnover in 2020	251.464.000.000
Estimated share of ecommerce Websites	2,1%
One-off costs of accessibility (CAPEX):	50.128
Ongoing costs of accessibility	1.989
One-off costs of non-accessible websites	33.317
Ongoing costs non-accessible	500
Number of goods/services	
number of websites within Spain	74.699
number of websites within the EU	533.310
Share of turnover stemming from cross-border trade	10%
Share of businesses to which Spanish accessibility legislation applies	
Lower range estimate	50%
Upper range estimate	50%
Current share of accessible websites	
Lower bound	60%
Upper bound	60%
Problem assessment: Number of websites (2011 or latest figure):	
Accessible websites	
Lower range estimate	22.484

Upper range estimate	22.484
Inaccessible websites	
Lower range estimate	14.865
Upper range estimate	14.865
Baseline scenario: Number of websites (forecast 2020):	
Accessible websites	
Lower range estimate	321.053
Upper range estimate	321.053
Inaccessible websites	
Lower range estimate	212.257
Upper range estimate	212.257
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
As identified in country sample	3
Only baseline scenario: see legislative analysis	12
Extrapolation to EU level	27
Share of GDP for relevant countries	
In 2011	
1 Member State has legislation in place: Spain	8,5%
In 2020	
3 Member State has legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5%

8.2. Effects of the problem on consumers

From a consumer perspective, impacts of accessibility on eCommerce would be similar to those already developed in the Private website sub-section above.

8.3. Assessment of the impacts per policy option

8.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 33: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Online Retail)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements covering eCommerce websites can be expected to be adopted in a range from 3 to 27 Member States based on the current availability of accessibility legislation and due to the obligations for the Member States under the UNCRPD The mid-range scenario is 12 countries. The revised Section 508 in the US and the debate on the application of ADA to websites is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites. Nevertheless, some divergences can be expected, thus hampering cross-border trade. These efforts will potentially be fostered also by currently on-going standardisation work at the EU level. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the countries are likely to have a negative impact on the industry. Despite that most countries are expected to follow the revised Section 508 or the web accessibility guidelines from W3C, differences between national legislation can be expected as it has happened extensively in the case of public websites.
Overall score	0	0	
Average score	0	0	

Table 34: Impacts of Policy Option 1 (Baseline Scenario, Online Retail)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning eCommerce websites is likely to have a positive impact on the level of accessibility of online retail services. Disabled persons and elderly will be able to benefit of better choice and lower prices generally offered in eCommerce (as compared to traditional retail). **Elderly** While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible eCommerce websites are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility needs among the elderly population is considerably higher than that of the rest of the population, the actual number of people that will likely benefit is still high. **General population** The level of accessibility of eCommerce websites is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	The level of accessibility of eCommerce websites is not likely to have any major environmental impacts. While the overall consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on researching and buying goods and services online is likely to be limited on a yearly basis.
Overall score	0	
Average score	0	

8.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 35: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Online Retail)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓✓✓(✓)	✓✓✓(✓)	✓✓✓✓	✓✓✓✓	✓✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of	✓✓✓(✓)	✓✓✓(✓)	✓✓✓✓	✓✓✓✓	✓✓✓✓✓	✓✓

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
public procurement						
Overall score	7	7	8	8	10	4
Average score	3.5	3.5	4	4	5	2

Table 36: Impacts of Policy Options 2, 3 and 4: Rating (Online Retail)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	0	✓(✓)	✓✓✓
Environmental impacts	0	0	0

Table 37: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Online Retail)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible eCommerce websites • Accessible information concerning the accessibility of the online retail service	It is assumed that a range of three to all of those countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%.	Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a large consumer group. It is expected that the cross-border trade could increase.	Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market.	Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 12 Member States, representing 85.3% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market.	Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible eCommerce websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites.
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option): • Accessible eCommerce websites • Accessible information concerning the accessibility of the online retail service	If it is assumed that no further countries will adopt legislation due to the recommendation there will be no additional benefit to different social groups compared to the baseline scenario. If however, countries other than those identified in the baseline scenario would introduce new accessibility requirements, then the level of accessibility would increase and consumers would benefit. For example, consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. In addition, the introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced	The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 if the number of countries increases vis-à-vis the number of countries that take-up the recommendation.	The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		prices online.		
Environmental impacts	*No explicit requirements.*	Improving accessibility of eCommerce websites could lead to a considerable share of the population being able to use online retail services and is likely to increase take-up of these online services provided. This may result in more lean processes, less paperwork and potentially less need for transport (e.g. from and to a shop). Overall, however, the relevant environmental impact is difficult to determine and should be judged on a case by case basis. For example, for online retail websites the impact of less transport from and to a shop may be (more than) offset by the transport for delivery of goods ordered online.		

9. Banking Services

9.1. Base figures

Banking services: Websites

Problem Assessment (2011) and Baseline Scenario (2020)	
Private sector websites market turnover in 2011	251,464,000,000
CAGR	0.0%
Private sector websites market turnover in 2020	251,464,000,000
Share of Banking services websites	0,027%
One-off costs of accessible websites (WCAG 2.0)	50.128
Ongoing costs of accessible websites (WCAG 2.0)	1.989
Number of businesses in the EU	6.825
Number of Spanish Businesses	64
One-off costs of non-accessible websites	33.317
Ongoing costs of non-accessible websites	500
Share of Spanish Businesses to which Spanish accessibility legislation applies	
Lower Estimate	90%
Upper Estimate	99%
Number of accessible websites in 2011	
Lower range estimate	10
Upper range estimate	38
Number of inaccessible websites in 2011	
Lower range estimate	19
Upper range estimate	53
Number of accessible websites in 2020	

Lower range estimate	1.229
Upper range estimate	4.109
Number of inaccessible websites in 2020	
Lower range estimate	2.716
Upper range estimate	5.597
Share of turnover stemming from cross-border trade	10%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
EU level	3
Using additional data	12
Share of GDP for relevant countries	
In 2011	
1 Member States has legislation in place	8,5 %
In 2020	
3 Member States have legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5.0%

Banking services: Built environment

Problem Assessment (2011) and Baseline Scenario (2020)	
Average costs for architect services per working hour	70
Number of working days	2
Number of FTEs	1
Number of working hours	8
Share of facilities that need to be replaced / refurbished per year	5,0%
Number of facilities relevant for the case in the problem assessment	215221
Share of architect services that is assumed to be procured cross-border	40,0%
Total Architect Market Turnover in 2011	14.525.640.676
Market share at risk of fragmentation	15%
Total industry turnover at risk of fragmentation in 2011	2.178.846.101
CAGR	0%
Total industry turnover at risk of fragmentation in 2020	2.178.846.101
Number of countries in the sample for which legislation could be identified	
Sample size	15
In 2011	11
EU level (extrapolation)	20
In 2020 (extrapolation)	11
EU level (extrapolation)	20
Share of GDP for relevant countries	
In 2011	
11 Member States have legislation in place	42,0%
20 Member States have legislation in place	73,9%
In 2020	
11 Member States have legislation in place	15,5%

27 Member States have legislation in place	42%
Correction factor	100%
Share of Member States that is expected to apply the eventual EU Recommendation	50%
Number of Member States that is expected to have legislation in place	27
Share of total EU GDP	100%
Correction factor	100,0%

Banking services: ATMs 215221

Problem Assessment (2011) and Baseline Scenario (2020)	
SSTs value in 2011	146,741,450
Share of production value that can be attributed to ATMs	65%
Market turnover in 2011	**95.381.943**
CAGR	0.0%
Market turnover in 2020	**95.381.943**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries for which legislation could be identified	
Sample size	9
In 2011	5

In 2020 (extrapolation)	
As identified in country sample	5
Only baseline scenario: see legislative analysis	10
Extrapolation to EU level	15
Share of GDP for relevant countries	
In 2011	
5 Member States have legislation in place	54.3%
In 2020	
5 Member States have legislation in place	54.3%
10 Member States have legislation in place	73.2%
15 Member States have legislation in place	75,1%
27 Member States have legislation in place	100.0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

9.2. Effects of the problem on consumers

As regards of banking services, SSTs and website have become essential elements in the provision of the service for customers who want to gather personal financial information or banking services. Accessible banking services for individuals with disabilities require accessibility of SSTs, built environment and the online part of the services. Persons with disabilities, as other customers, want their banking and dealing with their financing in a trustful and confidential way. For example, lack of accessibility in ATMs and websites results in disabled person having to share secret pin numbers with others in order to perform their financial transactions. Improving accessibility of banking services will have direct impact on the independence, autonomy and dignity of persons with disabilities.

Similarly than for the hospitality services, accessibility of the banking built environment is a condition sine qua non for persons with disabilities to be able to use the services, that includes

the entering and moving in the bank buildings as well as the place where the Automated Teller Machines are situated.

9.3. Assessment of the impacts per policy option

9.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 38: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Banking Services)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	**The built environment** Technical accessibility requirements are expected to be in place in all 27 Member States in 2020. Problems due to varying accessibility requirements result in problems for architects providing services across borders. Based on available data, it is estimated that 40% of architect services are taking place in a cross-border context. Problems due to variations between national requirements are expected in all of these cases. The differences in accessibility requirements are a challenge for architect service providers; according to anecdotal evidence gathered in the framework of the current study, many architect firms collaborate with local firms in the countries where they provide their services due to these problems, as well as other differences in building regulations. The costs for architects for understanding technical accessibility requirements have been estimated to be equal to 2 to 10 working days. **Websites** Over the next years, accessibility requirements covering online banking websites can be expected to be adopted in a range from 3 to 27 Member States based on the current availability of accessibility legislation and due to the obligations for the Member States under the UNCRPD The mid-range scenario is 12 countries. The revised Section 508 in the US and the debate on the application of ADA to websites is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites. Nevertheless, some divergences can be expected, thus hampering cross-border trade. In the area of the built environment, it is likely that many Member States will implement, maintain or develop their technical accessibility requirements by 2020. These efforts will potentially be fostered by currently on-going standardisation work at the EU level. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			potential of the internal market would not be achieved. **ATMs** Over the next years, accessibility requirements covering ATMs can be expected to be adopted in a range from 9 to 27 Member States based on the current availability of accessibility legislation in the field of the built environment in relation to banks and due to the obligations for the MS under the UNCRPD[9]. The mid-range scenario is 15 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the ATMs will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	**Built environment** The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. **Websites** The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the countries are likely to have a negative impact on the industry. Despite that most countries are expected to follow the revised Section 508 or the accessibility guidelines of W3C, differences between national legislation can be expected as it has been the case for public websites. **ATMs** The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the countries are likely to have a negative impact on the industry.
Overall score	0	0	
Average score	0	0	

[9] Based on an examination of the current situation in nine Member States, technical accessibility legislation has only been identified for a niche market in Italy. No problems in relation to cross-border trade due to these technical accessibility requirements have been identified in the current situation.

Table 39: Impacts of Policy Option 1 (Baseline Scenario, Banking Services)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** *a) Built environment* As noted above, all Member States are expected to have technical accessibility requirements in place in relation to the built environment of bank facilities in 2020. Technical accessibility requirements generally apply to new built environment and major refurbishments. Disabled persons are likely to be able to benefit from progressive improvements in this area by 2020. *b) Websites* The increased number of countries that are expected to adopt accessibility requirements concerning private sector websites is likely to have a positive impact on the level of accessibility of online banking services. Disabled persons and elderly will be able to benefit of better choice and lower prices generally offered in online banking (as compared to traditional retail banking). *c) ATMs* The increased number of countries that are expected to adopt accessibility requirements concerning ATMs is likely to have a positive impact on the level of accessibility of ATMs. This means that more disabled people are likely to be able to have access to banking services provided through ATMs. It is estimated that there is a cost difference between transactions based on ATMs and those not using ATMS. These costs differences are assumed to be accrued by people with disabilities. **Elderly** *a) Built environment* For the built environment, similar impacts as for disabled people are expected. *b) Websites* While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible private are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility needs among the elderly population is considerably higher than that of the rest of the population, the actual number of people that will likely benefit is still considerably high. *c) ATMs* While it can be expected that the take-up by elderly of ATMs will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible ATMs are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly

Assessment criteria	Rating	Explanation
		slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility needs among the elderly population is considerably higher than that of the rest of the population the actual number of people that will likely benefit is still considerably high. **General population** *a) Built environment* The accessibility of the built environment has impacts in particular on families with small children as well as bank clients with temporary functional limitations. Problems and needs of these groups of people in relation to the built environment are likely to be similar to those of disabled persons, depending on their functional limitations. *b) Websites* The level of accessibility of websites is unlikely to have any major impacts on non-disabled persons, except that websites designed to be accessible are easily and better adapted to their use in mobile devices what seems to be the trend among the general population. *c) ATMs* The level of accessibility of ATMs is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	**Built environment** The level of accessibility of the built environment of banking facilities for is not likely to have any major environmental impacts. **Websites** The level of accessibility of online banking websites is not likely to have any major environmental impacts. While the overall consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on online banking services online is likely to be limited on a yearly basis. **ATMs** The level of accessibility of ATMs for is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

9.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 40: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Banking Services)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓
Overall score	3	2	6	6	8	4
Average score	1.5	1	3	3	4	2

Table 41: Impacts of Policy Options 2, 3 and 4: Rating (Banking Services)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓(✓)	✓✓✓
Environmental impacts	0	0	✓(✓)

Table 42: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Banking Services)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible built environment of banking facilities; • Accessible websites for online banking; • Accessible Automated Teller Machines; and • Accessible information concerning the accessibility of banking services.	**Built environment** It is assumed that all countries are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 40%. **Websites** It is assumed that three of the countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%. **ATMs** It is assumed that for ATMs a range of nine to all of those countries (15) that are expected to adopt technical accessibility requirements by 2020 as	**Built environment** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in the 11 countries (i.e. the entire EU) that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. **Websites** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a large consumer group. It is expected that the cross-border trade could	**Built environment** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 16 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. **Websites** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	increase. **ATMs** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 15 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group (based on the assumption that in the banking and transport sector accessible ATMs will be demanded). It is expected that the cross-border trade could increase.	accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade. **ATMs** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.
To increase competition		**Built environment**	**Built environment**	**Built environment**

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
among industry in the area of selected goods and services and in the area of public procurement		The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, in turn have a positive impact on competition in this sector. **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. **ATMs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. nine to 15 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the	The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, spur competition in this sector, as one of the barriers to cross-border provision of services would be removed. **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 12 Member States transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. **ATMs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 15 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 15 Member States transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be low given that the market for ATMs is dominated by a limited	*See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites. **ATMs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for ATMs is effectively based on common accessibility requirements and therefore not only is new

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the impact is expected to be low given that the market for ATMs is dominated by a limited number of global companies.	number of global companies.	market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies and the market in particular for ATMs is not likely to grow significantly.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option): • Accessible built environment of banking facilities; • Accessible websites for online banking; • Accessible Automated Teller Machines; and • Accessible information concerning the accessibility of banking services.	**Built environment** *See the baseline scenario.* **Websites** If it is assumed that no further countries will adopt legislation due to the recommendation there will be no additional benefit to different social groups compared to the baseline scenario. If however, countries other than those identified in the baseline scenario would introduce new accessibility requirements, then the level of accessibility would increase and consumers would benefit. For example, consumers that access their banks cross-border from countries where accessibility requirements are in place would also benefit. In addition, the introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced prices online. **ATMs** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use ATMs cross-border in countries where accessibility requirements are in place would also benefit, although this number is estimated to be relatively low. The introduction of the relevant accessibility	**Built environment** *See the baseline scenario.* **Websites** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 if the number of countries increases vis-à-vis the number of countries that take-up the recommendation. **ATMs** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	**Built environment** *See the baseline scenario.* **Websites** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options. **ATMs** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		requirements will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.		
Environmental impacts	*No explicit requirements.*	**Built environment** None of the policy options is likely to leave a major environmental footprint. **Websites** Improving accessibility of websites could lead to a considerable share of the population being able to use online banking services websites and is likely to increase take-up of these online services provided. This may result in more lean processes, less paperwork and potentially less need for transport (e.g. from and to a bank). Overall, however, the relevant environmental impact is difficult to determine and should be judged on a case by case basis. Online banking can lead to more paperless processes would result from increased use of online banking and less transport to and from the bank is needed. **ATMs** Improving accessibility of ATMs could lead to an environmental impact based on the conducting of transactions through ATMs electronically leading to a less paper-based process. The level of accessibility of check-in and ticketing machines is not likely to have any major environmental impacts.		

10. Transport – Air

10.1. Base figures

Air transport services: Built environment

Problem Assessment (2011) and Baseline Scenario (2020)	
Total Architect Market Turnover in 2011	14.525.640.676
Market share at risk of fragmentation	15%
Total industry turnover at risk of fragmentation in 2011	2.178.846.101
CAGR	0%
Total industry turnover at risk of fragmentation in 2020	2.178.846.101
Average costs for architect services per working hour	70
Number of working days	2
Number of FTEs	1
Number of working hours/day	8
Share of facilities that need to be replaced / refurbished per year	5,0%
Number of facilities relevant for the case in the problem assessment	482
Share of architect services that is assumed to be procured cross-border	40,0%
Number of Member States that is expected to have legislation in place	27
Share of total EU GDP	100%
Share of Member States that is expected to apply the eventual EU Recommendation	50%
Correction factor	100,0%

Air transport services: Check-in machines

Problem Assessment (2011) and Baseline Scenario (2020)	
Total production value of “Point-of-sale terminals, ATMs and similar machines capable of being connected to a data processing machine	146.741.450

or network" PRODCOM code 26201200	
Share of production value that can be attributed to ATMs	5%
Share of production value that can be attributed to the Air transport sector	100%
Market turnover in 2011	7.337.073
CAGR	0.0%
Market turnover in 2020	**7.337.073**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	6
In 2020 (extrapolation)	
As identified in country sample	6
Only baseline scenario: see legislative analysis	9
Extrapolation to EU level	18
Share of GDP for relevant countries	
In 2011	
6 Member States have legislation in place	62,8%
In 2020	
6 Member States have legislation in place	62,8%

9 Member States have legislation in place	68,5%
18 Member States have legislation in place	84,1%
27 Member States have legislation in place	100,0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

Air transport services: Websites

Problem Assessment (2011) and Baseline Scenario (2020)	
Private sector websites market turnover in 2011	251,464,000,000
CAGR	0.0%
Private sector websites market turnover in 2020	251,464,000,000
Share of Air transport services websites	0,003%
One-off costs of accessible websites (WCAG 2.0)	50.128
Ongoing costs of accessible websites (WCAG 2.0)	1.989
Number of businesses in EU	872
Number of Spanish Businesses	71
One-off costs of non-accessible websites	33.317
Ongoing costs of non-accessible websites	500
Share of Spanish Businesses to which Spanish accessibility legislation applies	
Lower Estimate	95%
Upper Estimate	100%
Number of accessible websites in 2011	
Lower range estimate	12

Upper range estimate	43
Number of inaccessible websites in 2011	
Lower range estimate	28
Upper range estimate	59
Number of accessible websites in 2020	
Lower range estimate	157
Upper range estimate	525
Number of inaccessible websites in 2011	
Lower range estimate	347
Upper range estimate	715
Share of turnover stemming from cross-border trade	10%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
EU level	3
Using additional data	12
Share of GDP for relevant countries	
In 2011	
1 Member States has legislation in place	8,5 %
In 2020	
3 Member States have legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility	5.0%

requirements across borders	

10.2. Effects of the problem on consumers

Considering that one main barrier that people with disabilities and elderly people experience is the ability to move outside of their homes, the potential benefit of accessible transport has a direct impact on the possibility for their participation in society and be included in common activities that all citizens do. To enjoy the use of transport services the various elements of the transport chain need to be accessible, namely booking the travel, buying tickets and circulating in the transport infrastructures. Websites including online information and online booking is increasing and are essential sometimes for example; even to be able to access the service given the lack of person managed stations in some cases. Indeed, consumers with disabilities currently face challenges when planning travels and purchasing tickets online or through automatic vending machines. In addition challenges also relate to problems such as, for example, schedules not provided in an accessible format or difficulties to enter stations. Accessible websites will enhance the possibility to travel but also have access to more competitive prices. Just like the Internet and smart mobile communication devices, SSTs have become an essential interface for customers who want to gather information on specific transport services, buy and validate tickets or check-in to their journey, SSTs in the area of air transportation typically include self-service check-in terminals at airports.

10.3. Assessment of the impacts per policy option

10.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 43: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Air Transport)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	**The built environment** Technical accessibility requirements are expected to be in place in all the 27 Member States in 2020. Problems due to varying accessibility requirements result in problems for architects providing services across borders. Based on available data, it is estimated that 40% of architect services are taking place in a cross-border context. Problems due to variations between national requirements are expected in all of these cases. The differences in accessibility requirements are a challenge for architect service providers; according to anecdotal evidence gathered in the framework of the current study, many architect firms collaborate with local firms in the countries where they provide their services due to these problems, as well as other differences in building regulations. The costs for architects for understanding

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			technical accessibility requirements have been estimated to be equal to 2 to 10 working days. **Websites** Over the next years, accessibility requirements covering websites can be expected to be adopted in a range from 3 to 27 Member States based on the current availability of accessibility legislation in the field of copyrights and due to the obligations for the MS under the UNCRPD. The mid-range scenario is 12 countries. The revised Section 508 in the US and the recent obligations for accessible websites under the Air Carriers Access Act is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites. Nevertheless, some divergences can be expected, thus hampering cross-border trade. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved. **SSTs** Over the next years, accessibility requirements covering check-in machines can be expected to be adopted in a range from 9 to 27 Member States based on the current availability of accessibility legislation in the field of the built environment and due to the obligations for the MS under the UNCRPD and inspired in eth recent obligations in the US under the Air Carriers Access Act. The mid-range scenario is 18 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the SSTs will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. It is not expected that there will be any major new market entrants in the built environment sector by 2020 due to the maturity of the market and the market structure. Similarly, for the SSTs sector which is dominated by global companies and not projected to grow significantly. As concerns the situation in the websites sector, differences between legislation in the 12 countries that are expected to have legislation in place are likely to have a negative impact on the industry. Despite that most

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			countries are expected to follow the revised Section 508, differences between national legislation can be expected as it was the case in relation with public websites, thus impeding competition.
Overall score	0	0	
Average score	0	0	

Table 44: Impacts of Policy Option 1 (Baseline Scenario, Air Transport)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** Airports have some degree of accessibility and assistance is provided to disabled persons in need. An increase on accessibility is expected to decrease the level of assistance required by disabled persons. The increased number of countries that are expected to adopt accessibility requirements concerning websites is likely to have a positive impact on the level of accessibility of the websites. This means that more disabled people are likely to be able to book air tickets online. It is assumed that the price of air tickets may be on average between 5 and 10% cheaper than booking directly with the airline or via a travel agency. Hence, greater accessibility of websites will result in cost reductions for disabled persons. As concerns the potential impact on the absorption of air travel by disabled consumers, there may be a small positive impact due to increased travel if tickets can be bought at a better price. The benefits from using check-in machine stem from the cost related to time savings and reduced personnel. **Elderly** Airports generally have some degree of accessibility le and assistance is provided to disabled persons in need. An increase on accessibility is expected to decrease the level of assistance required by disabled persons. While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible websites in relation to air services are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. Accessible checking machines will be easy to use by elderly travellers. **General population** The level of accessibility of websites is unlikely to have any major impacts on non-disabled persons except that they would be easily used on mobile devices.
Environmental impacts	0	The level of accessibility of airports is not expected to have any major environmental impacts.

Assessment criteria	Rating	Explanation
		The same is relevant for websites; the level of accessibility of websites for booking air services online is not likely to have any major environmental impacts. While the overall consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on researching and booking air travel online is likely to be limited on a yearly basis. Environmental impacts due to a change in the absorption rates of air travel are also expected to be minor. The level of accessibility of check-in machines for is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

10.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 45: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Air Transport)

Policy Objectives (Assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓	✓✓	✓✓✓✓	✓✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓	✓	✓	✓	✓✓	✓✓
Overall score	2.5	2	3	3	6	5
Average score	1.25	1	1.5	1.5	3	2.5

Table 46: Impacts of Policy Options 2, 3 and 4: Rating (Air Transport)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓(✓)	✓✓✓
Environmental impacts	0	0	0

Table 47: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Air Transport)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible information concerning the accessibility of the service • Accessible websites for booking air travel • Accessible check in machines In addition, common technical requirements for the built environment would be adopted	**Built environment** It is assumed that a range of half to all of those countries (27) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 40%. **Websites** It is assumed that a range of three to all of those countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%. **SSTs** It is assumed that for check-in machines a range of	**Built environment** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in the 27 countries (i.e. the entire EU) that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. It is expected that the cross-border trade could increase. **Websites** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods	**Built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade. **SSTs** For check-in machines business in those 9 countries that are not expected to have adopted accessibility requirements by 2020 would face

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		nine to all of those countries (18) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	may miss out on a large consumer group. It is expected that the cross-border trade could increase. **SSTs** For check-in machines business in and 18 countries that are expected to have accessibility requirements in place by 2020 would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group (based on the assumption that in the air transport sector accessible SSTs will be demanded). It is expected that the cross-border trade could increase up.	additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.
To increase competition among industry in the area of selected goods and services and in the area of public		**Built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, in turn have a positive impact on competition in this sector.	**Built environment** The impact on new market entrants is likely to be limited but yet positive. The positive impact on cross-border trade may, however, spur competition in this sector, as one of the barriers to cross-border provision of services would be removed.	**Built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites** Positive impacts on competition are expected in

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
procurement		**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. nine to 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the	**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 12 Member States, representing 85.3% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 18 Member States, representing 84.1% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be limited given that the market for SSTs is dominated by a small number of global companies.	those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for SSTs is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies and the market is not likely to grow

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies.		significantly.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Information concerning the accessibility of the service; • Websites for booking air travel; • Accessible check in machines • Accessible airports	**Built environment** In view of that assistance is already provided to persons in need, impacts are related to increase of independence and comfort by person with disabilities. **Websites** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. If requirements would not be introduced in any further countries, then the situation is expected to remain the same as in the baseline scenario. The introduction of the any new accessibility requirements in further countries will lead to that a higher number of disabled consumers may benefit from reduced prices online. **SSTs** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use SSTs cross-border in countries where accessibility requirements are in place would also benefit. The introduction of relevant accessibility	**Built environment** *See PO2* **Websites and SSTs** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	**Built environment** *See PO2* **Websites** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options. **SSTs** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		requirements in any further countries will lead to that a higher number of disabled consumers may benefit from easy check in procedures in an independent manner.		
Environmental impacts	*No explicit requirements.*	None of the policy options is likely to leave a major environmental footprint. Action in this area is not expected to have a major impact on the take up of air transport or of Internet / computer uptake and use or check-in machines.		

11. Transport – Rail

11.1. Base figures

Rail transport services: Websites

Problem Assessment (2011) and Baseline Scenario (2020)	
Private sector websites market turnover in 2011	251,464,000,000
CAGR	0.0%
Private sector websites market turnover in 2020	251,464,000,000
Share of Rail transport services websites	0.002%
One-off costs of accessible websites (WCAG 2.0)	50.128
Ongoing costs of accessible websites (WCAG 2.0)	1.989
Number of businesses in EU	536
Number of Spanish Businesses	32
One-off costs of non-accessible websites	33.317
Ongoing costs of non-accessible websites	500
Share of Spanish Businesses to which Spanish accessibility legislation applies	
Lower Estimate	90%
Upper Estimate	95%
Number of accessible websites in 2011	
Lower range estimate	5
Upper range estimate	18
Number of inaccessible websites in 2011	
Lower range estimate	1
Upper range estimate	25
Number of accessible websites in 2020	

Lower range estimate	96
Upper range estimate	323
Number of inaccessible websites in 2020	
Lower range estimate	213
Upper range estimate	440
Share of turnover stemming from cross-border trade	10%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
EU level	3
Using additional data	12
Share of GDP for relevant countries	
In 2011	
1 Member States has legislation in place	8,5 %
In 2020	
3 Member States have legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5.0%

Rail transport services: Ticketing machines

Problem Assessment (2011) and Baseline Scenario (2020)

Total production value of “Point-of-sale terminals, ATMs and similar machines capable of being connected to a data processing machine or network" PRODCOM code 26201200	146.741.450
Share of production value that can be attributed to ATMs	30%
Share of production value that can be attributed to the Rail transport sector	45%
Market turnover in 2011	19.810.096
CAGR	0.0%
Market turnover in 2020	**19.810.096**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	6
In 2020 (extrapolation)	
As identified in country sample	6
Only baseline scenario: see legislative analysis	9
Extrapolation to EU level	18
Share of GDP for relevant countries	
In 2011	
6 Member States have legislation in place	62,8%

In 2020	
6 Member States have legislation in place	62,8%
9 Member States have legislation in place	68,5%
18 Member States have legislation in place	84,1%
27 Member States have legislation in place	100,0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

11.2. Effects of the problem on consumers

Considering that one main barrier that people with disabilities and elderly people experience is the ability to move outside of their homes, the potential benefit of accessible transport has a direct impact on the possibility for their participation in society and be included in common activities that all citizens do. To enjoy the use of transport services the various elements of the transport chain need to be accessible, namely booking the travel, buying tickets and circulating in the transport infrastructures. Websites including online information and online booking is increasing and are essential sometimes for example; even to be able to access the service given the lack of person managed stations in some cases. Indeed, consumers with disabilities currently face challenges when planning travels and purchasing tickets online or through automatic vending machines. In addition challenges also relate to problems such as, for example, schedules not provided in an accessible format or difficulties to enter stations. Accessible websites will enhance the possibility to travel but also have access to more competitive prices. Just like the Internet and smart mobile communication devices, SSTs have become an essential interface for customers who want to gather information on specific transport services, buy and validate tickets or check-in to their journey, SSTs in the area of rail transportation typically include self-service check-in terminals at rail stations.

11.3. Assessment of the impacts per policy option

11.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 48: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Rail Transport)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	**Websites** Over the next years, accessibility requirements covering websites can be expected to be adopted in a range from 3 to 27 Member States based on the current availability of accessibility legislation in the field of copyrights and due to the obligations for the MS under the UNCRPD. The mid-range scenario is 12 countries. The revised Section 508 in the US and the discussion on the applicability of ADA to websites is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites. Nevertheless, some divergences can be expected, thus hampering cross-border trade as it is the case in public websites. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved. **SSTs** Over the next years, accessibility requirements covering ticketing machines can be expected to be adopted in a range from 9 to 27 Member States based on current availability of accessibility legislation referring to SST and due to the obligations for the MS under the UNCRPD. The mid-range scenario is 18 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the SSTs will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the Internal Market.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. As concerns the situation in the websites sector, differences between legislation in the 12 countries that are expected to have legislation in place are likely to have a negative impact on the industry. Despite that most countries are expected to follow the revised Section 508 standards or the guidelines from W3C, differences between national legislation can be expected as it was the

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			case in public websites, thus impeding competition. Concerning ticketing machines the legislation 18 countries would have a negative impact on the industry, however, the market is highly concentrated and not much new market entry is expected.
Overall score	0	0	
Average score	0	0	

Table 49: Impacts of Policy Option 1 (Baseline Scenario, Rail Transport)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning websites is likely to have a positive impact on their level of accessibility. This means that more disabled people are likely to be able to book rail ticket online and consult time tables. It is assumed that the price of rail tickets may be on average between 5 and 10% cheaper than booking directly with the rail service provider or via a travel agency. Hence, greater accessibility of websites will result in cost reductions for disabled persons. As concerns the potential impact on the absorption of rail travel by disabled consumers, there may be a small positive impact due to increased travel if tickets can be bought at a better price. The benefits from using ticketing machines stem from the cost difference between tickets purchased at ticket offices and tickets purchased at ticketing machines that actually is saved by consumers with disabilities. **Elderly** While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible websites in relation to rail services are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility among the elderly population is considerably higher than that of the rest of the population the actual number of people that will likely benefit is still considerably high This also holds for the use of ticketing machines. **General population** The level of accessibility of websites is unlikely to have any major impacts on non-disabled persons except for the easily access in mobile devices. The level of accessibility of SSTs is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	The level of accessibility of websites for booking rail services online is not likely to have any major environmental impacts. While the overall

Assessment criteria	Rating	Explanation
		consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on researching and booking rail travel online is likely to be limited on a yearly basis. Environmental impacts due to a change in the absorption rates of rail travel are also expected to be minor. A small positive impact could result in those cases disabled persons choose to travel by train instead of individually. The level of accessibility of SSTs for is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

11.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 50: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Rail Transport)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓	✓✓	✓✓✓✓	✓✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓	✓	✓	✓	✓✓	✓✓
Overall score	2.5	2	3	3	6	5
Average score	1.25	1	1.5	1.5	3	2.5

Table 51: Impacts of Policy Options 2, 3 and 4: Rating (Rail Transport)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓(✓)	✓✓✓
Environmental impacts	0	0	0

Table 52: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Rail Transport)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible information concerning the accessibility of the service • Accessible websites for booking rail travel • Accessible ticketing machines	**Websites** It is assumed that a range of three to all of those countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%. **SSTs** It is assumed that a range of nine to all of those countries (18) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	**Websites** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a large consumer group. It is expected that the cross-border trade could increase. **SSTs** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 18 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements.	**Websites** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade of 20%. **SSTs** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
			This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group (based on the assumption that in the rail transport sector accessible SSTs will be demanded). It is expected that the cross-border trade could increase.	However, at the same time, business in those 9 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.
To increase competition among industry in the area of selected goods and services and in the area of public procurement		**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. **SSTs** Positive impacts on competition could be expected	**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 12 Member States, representing 15.5% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 18 countries. Given that cross-border trade is expected to increase and	**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites. **SSTs** Positive impacts on competition could be

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		in those countries that are covered by the common accessibility requirements, i.e. nine to 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the impact is expected to be limited given that the market for SSTs is dominated by a small number of global companies.	the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 18 Member States, representing 84.1% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be limited given that the market for SSTs is dominated by a few large players.	expected in all countries that are now covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for SSTs is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be limited given that the market for SSTs is dominated by a small number of global companies and the market is not likely to grow significantly.
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Information concerning the accessibility of the service; • Websites for booking rail travel; • Accessible ticketing machines	**Websites** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. If requirements would not be introduced in any further countries than at present, the situation would remain the same as in the baseline scenario. To the degree that new accessibility requirements would be introduced in further countries, a higher	**Websites and SSTs** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	**Websites and SSTs** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		number of disabled consumers may benefit from reduced prices online. **SSTs** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use SSTs cross-border in countries where accessibility requirements are in place would also benefit. Similar to what is the case for websites, the introduction of relevant accessibility requirements in any further countries will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.		
Environmental impacts	*No explicit requirements.*	None of the policy options is likely to leave a major environmental footprint. Action in this area is not expected to have a major impact on the take up of rail services or of Internet / computer uptake and use.		

12. Transport - Bus

12.1. Base figures

Bus transport services: Websites

Problem Assessment (2011) and Baseline Scenario (2020)	
Private sector websites market turnover in 2011	251,464,000,000
CAGR	0.0%
Private sector websites market turnover in 2020	251,464,000,000
Share of Bus transport services websites	0.3%
One-off costs of accessible websites (WCAG 2.0)	50.128
Ongoing costs of accessible websites (WCAG 2.0)	1.989
Number of businesses in the EU	65.000
Number of Spanish Businesses	7.475
One-off costs of non-accessible websites	33.317
Ongoing costs of non-accessible websites	500
Share of Spanish Businesses to which Spanish accessibility legislation applies	
Lower Estimate	1%
Upper Estimate	10%
Number of accessible websites in 2011	
Lower range estimate	13
Upper range estimate	450
Number of inaccessible websites in 2011	
Lower range estimate	1
Upper range estimate	734
Number of accessible websites in 2020	

Lower range estimate	11.700
Upper range estimate	39.130
Number of inaccessible websites in 2020	
Lower range estimate	25.870
Upper range estimate	53.300
Share of turnover stemming from cross-border trade	10%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
EU level	3
Using additional data	12
Share of GDP for relevant countries	
In 2011	
1 Member States has legislation in place	8,5 %
In 2020	
3 Member States have legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5.0%

Bus transport services: Built environment

Problem Assessment (2011) and Baseline Scenario (2020)	
Total Architect Market Turnover in 2011	14.525.640.676
Market share at risk of fragmentation	15%
Total industry turnover at risk of fragmentation in 2011	2.178.846.101
CAGR	0%
Total industry turnover at risk of fragmentation in 2020	2.178.846.101
Average costs for architect services per working hour	70
Number of working days	2
Number of FTEs	1
Number of working hours/day	8
Share of facilities that need to be replaced / refurbished per year	5,0%
Number of facilities relevant for the case in the problem assessment	82500
Share of architect services that is assumed to be procured cross-border	40,0%
Number of Member States that is expected to have legislation in place	27
Share of total EU GDP	100%
Share of Member States that is expected to apply the eventual EU Recommendation	50%
Correction factor	100,0%

Bus transport services: Ticketing machines

Problem Assessment (2011) and Baseline Scenario (2020)	
Total production value of “Point-of-sale terminals, ATMs and similar machines capable of being connected to a data processing machine or network" PRODCOM code 26201200	146.741.450
Share of production value that can be attributed	30%

to Ticketing Machines	
Share of production value that can be attributed to the Bus transport sector	45%
Market turnover in 2011	19.810.096
CAGR	0.0%
Market turnover in 2020	**19.810.096**
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	6
In 2020 (extrapolation)	
As identified in country sample	6
Only baseline scenario: see legislative analysis	9
Extrapolation to EU level	18
Share of GDP for relevant countries	
In 2011	
6 Member States have legislation in place	62,8%
In 2020	
6 Member States have legislation in place	62,8%
9 Member States have legislation in place	68,5%
18 Member States have legislation in place	84,1%

27 Member States have legislation in place	100,0%
Correction factor	100.0%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1.0%

12.2. Effects of the problem on consumers

Considering that one main barrier that people with disabilities and elderly people experience is the ability to move outside of their homes, the potential benefit of accessible transport has a direct impact on the possibility for their participation in society and be included in common activities that all citizens do. To enjoy the use of transport services the various elements of the transport chain need to be accessible, namely booking the travel, buying tickets and circulating in the transport infrastructures. Websites including online information and online booking is increasing and are essential sometimes for example; even to be able to access the service given the lack of person managed stations in some cases. Indeed, consumers with disabilities currently face challenges when planning travels and purchasing tickets online or through automatic vending machines. In addition challenges also relate to problems such as, for example, schedules not provided in an accessible format or difficulties to enter stations. Accessible websites will enhance the possibility to travel but also have access to more competitive prices. Just like the Internet and smart mobile communication devices, SSTs have become an essential interface for customers who want to gather information on specific transport services, buy and validate tickets or check-in to their journey, SSTs in the area of bus transportation typically include self-service check-in terminals at bus stations.

12.3. Assessment of the impacts per policy option

12.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 53: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Bus Transport)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	**The built environment** Technical accessibility requirements are expected to be in place in all the 27 Member States in 2020. Problems due to varying accessibility requirements result in problems for architects providing services across borders. Based on available data, it is estimated that 40% of architect

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			services are taking place in a cross-border context. Problems due to variations between national requirements are expected in all of these cases. The differences in accessibility requirements are a challenge for architect service providers. The costs for architects for understanding technical accessibility requirements have been estimated to be equal to 2 to 10 working days. **Websites** Over the next years, accessibility requirements covering websites can be expected to be adopted in a range from 3 to 27 Member States based on the current availability of accessibility legislation in the field of copyrights and due to the obligations for the MS under the UNCRPD. The mid-range scenario is 12 countries. The revised Section 508 in the US and the discussion of coverage of web sites under ADA is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites. Nevertheless, some divergences can be expected as it is the case for public web sites, thus hampering cross-border trade. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved. **SSTs** Over the next years, accessibility requirements covering ticketing machines can be expected to be adopted in a range from 9 to 27 Member States current availability of accessibility legislation in the field of the built environment and due to the obligations for the MS under the UNCRPD. The mid-range scenario is 18 countries. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the SSTs will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the Internal Market.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. It is not expected that there will be major new market entrants in the built environment sector by 2020 due to the maturity of the market and the market structure. As concerns the situation in the websites sector, differences between legislation in the 12 countries that

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			are expected to have legislation in place are likely to have a negative impact on the industry. Despite that most countries are expected to follow the revised Section 508, or the guidelines of W3C differences between national legislation can be expected, thus impeding competition. Concerning ticketing machines the legislation 18 countries would have a negative impact on the industry, however, the market is highly concentrated.
Overall score	0	0	
Average score	0	0	

Table 54: Impacts of Policy Option 1 (Baseline Scenario, Bus Transport)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** As noted above, all Member States are expected to have technical accessibility requirements in place in relation to the built environment in the field of bus transport in 2020. Technical accessibility requirements generally apply to new built environment and major refurbishments. Disabled persons are likely to be able to benefit from progressive improvements in this area by 2020 and be more able to use bus transport. The increased number of countries that are expected to adopt accessibility requirements concerning websites is likely to have a positive impact on their level of accessibility. This means that more disabled people are likely to be able to book bus tickets online. It is assumed that the price of bus tickets may be on average between 5 and 10% cheaper than booking directly with the bus company or via a travel agency. Hence, greater accessibility of websites will result in cost reductions for disabled persons. As concerns the potential impact on the absorption of bus travel by disabled consumers, there may be a small positive impact due to increased travel if tickets can be bought at a better price. The benefits from using ticketing machines stem from the cost difference between tickets purchased at ticket offices and tickets purchased at ticketing machines that actually is saved by consumers with disabilities. **Elderly** For the built environment, similar impacts as for disabled people are expected. While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible websites in relation to bus services are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility among the elderly population is considerably higher than that of the rest of the

Assessment criteria	Rating	Explanation
		population the actual number of people that will likely benefit is still considerably high This also holds for the use of ticketing machines. **General population** The accessibility of the built environment has impacts in particular on families with small children as well as tourists with temporary functional limitations. Problems and needs of these groups of people in relation to the built environment are likely to be similar to those of disabled persons, depending on their functional limitations. The level of accessibility of websites is unlikely to have any major impacts on non-disabled persons except from their easy use on mobile devices. The level of accessibility of SSTs is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	The level of accessibility of bus stations can have an environmental impact in terms of replacement of individual travel with public transport (positive impact) or increased travel by disabled people (minor negative environmental impact). The level of accessibility of websites for booking bus services online is not likely to have any major environmental impacts. While the overall consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on researching and booking bus travel online is likely to be limited on a yearly basis. Environmental impacts due to a change in the absorption rates of bus travel are also expected to be minor. The level of accessibility of SSTs for is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

12.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 55: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Bus Transport)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓	✓✓	✓✓✓✓	✓✓✓
To increase competition among industry in the area of selected goods	✓	✓	✓	✓	✓✓	✓✓

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
and services and in the area of public procurement						
Overall score	2.5	1	3	3	6	5
Average score	1.25	1	1.5	1.5	3	2.5

Table 56: Impacts of Policy Options 2, 3 and 4: Rating (Bus Transport)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓(✓)	✓✓✓
Environmental impacts	0	0	0

Table 57: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Bus Transport)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible information concerning the accessibility of the service • Accessible websites for booking bus travel • Accessible ticketing machines In addition, common technical requirements for the built environment would be adopted	**Built environment** It is assumed that a range of half to all of those countries (27) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 40%. **Websites** It is assumed that a range of three to all of those countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%. **SSTs** It is assumed that a range of nine to all of those countries (18) that are expected to adopt technical	**Built environment** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in the 27 countries (i.e. the entire EU) that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. It is expected that the cross-border trade could increase. **Websites** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. It is expected that the cross-border trade could	**Built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade. **SSTs** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	increase. **SSTs** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 18 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. It is expected that the cross-border trade could increase.	principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 18 or 9 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.
To increase competition among industry in the area of selected goods and services and in the area of public procurement		**Built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, in turn have a positive impact on competition in this sector. **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has	**Built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, spur competition in this sector, as one of the barriers to cross-border provision of services would be removed. **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements	**Built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. nine to 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global companies.	across Member States has been removed, more companies may enter the market. With 12 Member States, representing 85.3% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 18 Member States, representing 84.1% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be limited given that the market for SSTs is dominated by a few large players.	accessible websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for SSTs is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be limited given that the market for SSTs is dominated by a small number of global companies and the market is not likely to grow significantly until 2020.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Information concerning the accessibility of the service; • Websites for booking bus travel; • Accessible ticketing machines • Accessible bus stations	**Built environment** *See the baseline scenario.* **Websites** The benefits would be limited to those countries where accessibility requirements are in place. If no further countries would adopt accessibility requirements, the situation would remain the same as in the baseline scenario. In case further countries would introduce accessibility requirements than in the current situation, the introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced prices online as well as easier to access information on the accessibility of the service. Consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. **SSTs** The benefits would be limited to those countries where accessibility requirements are in place (see websites above). The potential introduction of relevant accessibility requirements in further countries would lead to that a higher number of disabled consumers may benefit from reduced transaction costs and being	**Built environment** *See the baseline scenario.* **Websites and SSTs** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	**Built environment** *See the baseline scenario.* **Websites and SSTs** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		able to travel more independent. Consumers that use SSTs cross-border in countries where accessibility requirements are in place would also benefit, although this number is estimated to be relatively low.		
Environmental impacts	*No explicit requirements.*	None of the policy options is likely to leave a major environmental footprint. Action in this area is not expected to have a major impact on the take up of bus transport or of Internet / computer uptake and use.		

13. Transport – Maritime

13.1. Base figures

13.1.1. Websites

Problem Assessment (2011) and Baseline Scenario (2020)	
Private sector websites market turnover in 2011	251.464.000.000
CAGR	0,0%
Private sector websites market turnover in 2020	251.464.000.000
Share of Maritime transport services websites	0.01%
One-off costs of accessible websites	50.128
Ongoing costs of accessible websites	1.989
One-off costs of non-accessible websites	33.317
Ongoing costs non-accessible	500
Number of goods/services	
Number of websites within Spain	218
Number of websites in the EU	2.498
Share of turnover stemming from cross-border trade	10%
Share of Spanish businesses to which Spanish accessibility legislation applies	
Lower range estimate	5%
Upper range estimate	25%
Problem assessment: Number of websites (2011 or latest figure):	
Accessible websites	
Lower range estimate	2

Upper range estimate	33
Inaccessible websites	
Lower range estimate	185
Upper range estimate	216
Baseline scenario: Number of websites (forecast 2020):	
Accessible websites	
Lower range estimate	450
Upper range estimate	1.504
Inaccessible websites	
Lower range estimate	994
Upper range estimate	2.048
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
As identified in country sample	3
Only baseline scenario: see legislative analysis	12
Extrapolation to EU level	27
Share of GDP for relevant countries	
In 2011	
1 Member State has legislation in place: Spain	8,5%
In 2020	
3 Member State has legislation in place	15,5%
12 Member States have legislation in place	85,3%

27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5%

13.1.2. Built environment

Problem Assessment (2011) and Baseline Scenario (2020)	
Total Architect Market Turnover in 2011	14.525.640.676
Market share at risk of fragmentation	15%
Total industry turnover at risk of fragmentation in 2011	2.178.846.101
CAGR	0%
Total industry turnover at risk of fragmentation in 2020	2.178.846.101
Average costs for architect services per working hour	70
Number of working days	2
Number of FTEs	1
Number of working hours/day	8
Share of facilities that need to be replaced / refurbished per year	5,0%
Number of facilities relevant for the case in the problem assessment	338
Share of architect services that is assumed to be procured cross-border	40,0%
Number of Member States that is expected to have legislation in place	27
Share of total EU GDP	100%
Share of Member States that is expected to apply the eventual EU Recommendation	50%
Correction factor	100,0%

13.1.3. Ticketing machines

Problem Assessment (2011) and Baseline Scenario (2020)	
Total production value of "Point-of-sale terminals, ATMs and similar machines capable of being connected to a data processing machine or network" PRODCOM code 26201200	146.741.450
Share that can be attributed to SSTs	30%
SSTs value in 2011	44.022.435
Share of production value that can be attributed to ATMs	10%
Market turnover in 2011	4.402.244
CAGR	0.0%
Market turnover in 2020	4.402.244
Share of development costs	5%
Share of accessibility costs	1%
Share of ongoing costs	0%
Share of turnover stemming from cross-border trade	50%
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	6
In 2020 (extrapolation)	
As identified in country sample	6
Only baseline scenario: see legislative analysis	9
Extrapolation to EU level	18
Share of GDP for relevant countries	

In 2011	
6 Member States have legislation in place	66,7%
In 2020	
6 Member States have legislation in place	62,8%
9 Member States have legislation in place	68,5%
18 Member States have legislation in place	84,1%
27 Member States have legislation in place	100,0%
Correction factor	1%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	100 %

13.2. Effects of the problem on consumers

Considering that one main barrier that people with disabilities and elderly people experience is the ability to move outside of their homes, the potential benefit of accessible transport has a direct impact on the possibility for their participation in society and be included in common activities that all citizens do. To enjoy the use of transport services the various elements of the transport chain need to be accessible, namely booking the travel, buying tickets and circulating in the transport infrastructures. Websites including online information and online booking is increasing and are essential sometimes for example; even to be able to access the service given the lack of person managed stations in some cases. Indeed, consumers with disabilities currently face challenges when planning travels and purchasing tickets online or through automatic vending machines. In addition challenges also relate to problems such as, for example, schedules not provided in an accessible format or difficulties to enter stations. Accessible websites will enhance the possibility to travel but also have access to more competitive prices. Just like the Internet and smart mobile communication devices, SSTs have become an essential interface for customers who want to gather information on specific transport services, buy and validate tickets or check-in to their journey, SSTs in the area of maritime transportation typically include self-service check-in terminals.

13.3. Assessment of the impacts per Policy option

13.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 58: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Maritime Transport)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	**The built environment** Technical accessibility requirements are expected to be in place in all the 27 Member States in 2020. Problems due to varying accessibility requirements result in problems for architects providing services across borders. Based on available data, it is estimated that 40% of architect services are taking place in a cross-border context. Problems due to variations between national requirements are expected in all of these cases. The differences in accessibility requirements are a challenge for architect service providers. The costs for architects for understanding technical accessibility requirements have been estimated to be equal to 2 to 10 working days. **Websites** Over the next years, accessibility requirements covering websites can be expected to be adopted in a range from 3 to 27 Member States based on the current availability of accessibility legislation in the field of copyrights and due to the obligations for the MS under the UNCRPD. The mid-range scenario is 12 countries. The revised Section 508 in the US and the discussion on the coverage of websites under ADA is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites. Nevertheless, some divergences can be expected, thus hampering cross-border trade. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved. **SSTs** Over the next years, accessibility requirements covering ticketing machines can be expected to be adopted in a range from 9 to 27 Member States current availability of accessibility legislation in the field of the built environment in relation to the maritime sector and due to the obligations for the MS under the UNCRPD[10]. The mid-range scenario is 18 countries.

[10] Based on an examination of the current situation in nine Member States, technical accessibility legislation has only been identified for a niche market in Italy. No problems in relation to cross-

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 50% of the SSTs will be provided across-borders in 2020. It is expected that the differences between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the Internal Market.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. It is not expected that there will be any major new market entrants in the built environment sector by 2020 due to the maturity of the market and the market structure. As concerns the situation in the websites sector, differences between legislation in the 12 countries that are expected to have legislation in place are likely to have a negative impact on the industry. Despite that most countries are expected to follow the revised Section 508 or the guidelines of W3C, differences between national legislation can be expected, thus impeding competition. With regard to ticketing machines the legislation 18 countries would have a negative impact on the industry, however, the market is highly concentrated and not much new market entry is expected.
Overall score	0	0	
Average score	0	0	

Table 59: Impacts of Policy Option 1 (Baseline Scenario, Maritime Transport)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** As noted above, all Member States are expected to have technical accessibility requirements in place in relation to the built environment in the field of maritime transport in 2020. Technical accessibility requirements generally apply to new built environment and major refurbishments. Disabled persons are likely to be able to benefit from progressive improvements in this area by 2020. The increased number of countries that are expected to adopt accessibility requirements concerning websites is likely to have a positive impact on the level of accessibility of the websites. This means that more disabled people are likely to be able to book boat tickets online. It is assumed that the price of boat tickets may be on average between 5 and 10% cheaper than

border trade due to these technical accessibility requirements have been identified in the current situation.

Assessment criteria	Rating	Explanation
		booking directly with the company or via a travel agency. Hence, greater accessibility of websites will result in cost reductions for disabled persons. As concerns the potential impact on the absorption of boat travel by disabled consumers, there may be a small positive impact due to increased travel if tickets can be bought at a better price. The benefits from using ticketing machines stem from the cost difference between tickets purchased at ticket offices and tickets purchased at ticketing machines that actually is saved by consumers with disabilities. **Elderly** For the built environment, similar impacts as for disabled people are expected. While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible websites in relation to boat services are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. However, keeping in mind that the prevalence of accessibility among the elderly population is considerably higher than that of the rest of the population the actual number of people that will likely benefit is still considerably high. This also holds for the use of ticketing machines. **General population** The accessibility of the built environment has impacts in particular on families with small children as well as tourists with temporary functional limitations. Problems and needs of these groups of people in relation to the built environment are likely to be similar to those of disabled persons, depending on their functional limitations. The level of accessibility of websites is unlikely to have any major impacts on non-disabled persons except their easy use in mobile devices.
Environmental impacts	0	The level of accessibility of maritime ports is not expected to have any environmental impacts. The same is relevant for websites; the level of accessibility of websites for booking boat services online is not likely to have any major environmental impacts. While the overall consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on researching and booking boat travel online is likely to be limited on a yearly basis. The level of accessibility of SSTs for is not likely to have any major environmental impacts.
Overall score	0	
Average score	0	

13.3.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 60: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Maritime Transport)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓(✓)	✓	✓✓	✓✓	✓✓✓✓	✓✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓	✓	✓	✓	✓✓	✓✓
Overall score	2.5	2	3	3	6	5
Average score	1.25	1	1.5	1.5	3	2.5

Table 61: Impacts of Policy Options 2, 3 and 4: Rating (Maritime Transport)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓(✓)	✓✓✓
Environmental impacts	0	0	0

Table 62: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Maritime Transport)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible information concerning the accessibility of the service • Accessible websites for booking boat travel • Accessible ticketing machines In addition, common technical requirements for the built environment would be adopted	**Built environment** It is assumed that a range of half to all of those countries (27) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 40%. **Websites** It is assumed that a range of three to all of those countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%. **SSTs** It is assumed that a range of nine to all of those	**Built environment** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in the 27 countries (i.e. the entire EU) that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. It is expected that the cross-border trade could increase up. **Websites** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods	**Built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade. **SSTs** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		countries (18) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 50%.	may miss out on a large consumer group. It is expected that the cross-border trade could increase up to 15% (12 countries). **SSTs** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 18 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible goods may miss out on a larger consumer group (based on the assumption that in the maritime transport sector accessible SSTs will be demanded). It is expected that the cross-border trade could increase up.	national accessibility requirements. However, at the same time, business in those 15 or 9 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.
To increase competition among industry in the area of selected goods and services and in the area of public		**Built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, in turn have a positive impact on competition in this sector.	**Built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, spur competition in this sector, as one of the barriers to cross-border provision of	**Built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).* **Websites**

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
procurement		**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. nine to 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. However, the	services would be removed. **Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 12 Member States, representing x% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, i.e. 18 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 18 Member States, representing 84.1% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. However, the impact is expected to be low given that the market for SSTs is dominated by a few large players.	Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites. **SSTs** Positive impacts on competition could be expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for SSTs is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3). However, the impact is expected to be low given that the market for SSTs is dominated by a limited number of global

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		impact is expected to be limited given that the market for SSTs is dominated by a small number of global companies.		companies and the market is not likely to grow significantly.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Information concerning the accessibility of the service; • Websites for booking boat travel; • Accessible ticketing machines • Accessible ports	**Built environment** *See the baseline scenario.* **Websites** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. The introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced prices online. **SSTs** The benefits would be limited to those countries where accessibility requirements are in place. Consumers that use SSTs cross-border in countries where accessibility requirements are in place would also benefit, although this number is estimated to be relatively low. Similar to what is the case for websites, the introduction of relevant accessibility requirements in any further countries will lead to that a higher number of disabled consumers may benefit from reduced transaction costs.	**Built environment** *See the baseline scenario.* **Websites and SSTs** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	**Built environment** *See the baseline scenario.* **Websites** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options. **SSTs**
Environmental impacts	*No explicit requirements.*	None of the policy options is likely to leave a major environmental footprint. Action in this area is not expected to have a major impact on the take up of boat		

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
		transport or of Internet / computer uptake and use.		

Hospitality Services

13.4. Base figures

13.4.1. Websites

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	251.464.000.000
CAGR	0,0%
Market turnover in 2020	251.464.000.000
One-off costs of accessibility (CAPEX):	50.128
Ongoing costs of accessibility	1.989
One-off costs of non-accessible websites	33.317
Ongoing costs non-accessible	500
Number of goods/services	
number of websites within Spain	21.000
number of websites within the EU	260.000
Share of turnover stemming from cross-border trade	10%
Share of Spanish businesses to which accessibility legislation applies	
Lower range estimate	50%
Upper range estimate	50%
Problem assessment: Number of websites (2011 or latest figure):	
Accessible websites	
Lower range estimate	1.890
Upper range estimate	6.321
Inaccessible websites	
Lower range estimate	4.179
Upper range estimate	8.610

Baseline scenario: Number of websites (forecast 2020):	
Accessible websites	
Lower range estimate	46.800
Upper range estimate	156.520
Inaccessible websites	
Lower range estimate	103.480
Upper range estimate	213.200
Number of countries in the sample for which legislation could be identified	
Sample size	9
In 2011	1
In 2020 (extrapolation)	
As identified in country sample	3
Only baseline scenario: see legislative analysis	12
Extrapolation to EU level	27
Share of GDP for relevant countries	
In 2011	
1 Member State has legislation in place: Spain	8,5%
In 2020	
3 Member State has legislation in place	15,5%
12 Member States have legislation in place	85,3%
27 Member States have legislation in place	100,0%
Correction factor	30%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	5%

13.4.2. Built environment

Problem Assessment (2011) and Baseline Scenario (2020)	
Total Architect Market Turnover in 2011	14.525.640.676
Market share at risk of fragmentation	15%
Total industry turnover at risk of fragmentation in 2011	2.178.846.101
CAGR	0%
Total industry turnover at risk of fragmentation in 2020	2.178.846.101
Average costs for architect services per working hour	70
Number of working days	2
Number of FTEs	1
Number of working hours/day	8
Share of facilities that need to be replaced / refurbished per year	5,0%
Number of facilities relevant for the case in the problem assessment	279910
Share of architect services that is assumed to be procured cross-border	40,0%
Number of Member States that is expected to have legislation in place	27
Share of total EU GDP	100%
Share of Member States that is expected to apply the eventual EU Recommendation	50%
Correction factor	100,0%

13.5. Effects of the problem on consumers

Challenges currently encountered by disabled consumers relate e.g. to the insufficient availability of (comparable) information concerning the accessibility of hospitality services, as well as problems in relation to the actual accessibility of the built environment and websites where hospitality services can be booked. Indeed, any disabled traveller, either from an EU Member State or from overseas, who wishes to travel to an (other) EU faces to the lack of similar or coordinated access standards across Europe. The choice of suitable holiday destinations is limited firstly by the difficulty of obtaining reliable information about accessibility, prior to travel, and subsequently by the highly variable quality of transport, venues and services, in terms of their accessibility.

For instance, many accessibility certification schemes and labels are only based on self-assessments by the hospitality service providers without any third party testing[11] and are based on different criteria. As a consequence, consumers often have no assurance that labelled hospitality facilities are actually accessible. Moreover some providers of hospitality services have wrongly labelled their facilities – generally because of a lack of technical skills to perform a correct conformity assessment. As a result, disabled customers relying on such accessibility labels run a risk of unintended booking non-accessible services which could potentially even endangering their security.

Lastly, many accessibility certification schemes and labels focus only on accessibility aspects of the built environment and do not include accessibility of services. Yet, disabled consumers often require accessibility of both the physical facilities and the related services[12].

13.6. Assessment of the impacts per policy option

13.6.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 63: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Hospitality Services)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements covering websites can be expected to be adopted by 12 Member States based on the current availability of accessibility legislation in the field of copyrights and due to the obligations for the MS under the UNCRPD. In the built environment, technical accessibility requirements are expected to be adopted in all the 27 Member States. The revised Section 508 in the US is likely to be used as an inspiration by EU Member States adopting legislation in relation to websites as well as the on-going debate of the applicability of ADA to websites. Nevertheless, some divergences can be expected, thus hampering cross-border trade. In the area of the built environment, it is likely that many Member States will implement, maintain or develop their technical accessibility requirements for hospitality services and facilities by 2020. These efforts will potentially be fostered by currently on-going standardisation work at the EU level. As to the magnitude of the impacts of the varying accessibility requirements, it is assumed that 10% of the services provided by web professionals will take place cross-border in 2020. It is expected that the differences

[11] e.g. the German DEHOGA accessibility scheme.

[12] BMWi (2008), p. 34., http://www.bmwi.de/English/Redaktion/Pdf/economic-impulses-of-accessible-tourism-for-all-526,property=pdf,bereich=bmwi,sprache=en,rwb=true.pdf

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
			between national technical accessibility requirements has a negative impact on cross-border trade and that the full potential of the internal market would not be achieved. Turning to the built environment sector, problems due to varying accessibility requirements result in problems for architects providing services across borders. Based on available data, it is estimated that 40% of architect services are taking place in a cross-border context. Problems due to variations between national requirements are expected in all of these cases. The differences in accessibility requirements are a challenge for architect service providers; according to anecdotal evidence gathered in the framework of the current study, many architect firms collaborate with local firms in the countries where they provide their services due to these problems, as well as other differences in building regulations. The costs for architects for understanding technical accessibility requirements have been estimated to be equal to 2 to 10 working days. Overall, the costs have been estimated to be between 4.5 EURm and 62.7 EURm for the architect industry. The costs associated with efforts made in order to understand accessibility legislation in place and to adapt the services accordingly is estimated to be between approx. 0.01% and 0.17% of the turnover in this sector in 2020.
To increase competition among industry in the area of selected goods and services and in the area of public procurement	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. It is not expected that there will be any major new market entrants in the built environment sector by 2020 due to the maturity of the market and the market structure. As concerns the situation in the websites sector, differences between legislation in the countries are likely to have a negative impact on the industry. Despite that most countries are expected to follow the revised Section 508, differences between national legislation can be expected as it has been the case in relation to public websites.
Overall score	0	0	
Average score	0	0	

Table 64: Impacts of Policy Option 1 (Baseline Scenario, Hospitality Services)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning websites is likely to have a positive impact on their level of accessibility. This means that more disabled people are likely to be able to book accommodation online. It is assumed that the price of accommodation may be on average between 5 and 10% cheaper than booking directly with the hospitality service provider or via a travel agency.

Assessment criteria	Rating	Explanation
		It can be noted that building regulations that impose accessibility requirements generally refer to new buildings and major refurbishments. Therefore, older buildings may not be accessible. Furthermore, the current varying certification and information concerning the actual accessibility of facilities creates problems for consumers, since the certification schemes vary between the Member States. **Elderly** While it can be expected that the absorption rate by elderly of ICT and Internet products will increase by 2020, it is still expected that it will not be at the same level as younger consumers. Hence, while the types of benefits that result from accessible websites in relation to hospitality services are likely to be similar to those of disabled people, it is expected that the anticipated increase in the level of accessibility will benefit elderly slightly less than disabled consumers. Problems and needs for elderly in relation to the accessibility of hospitality facilities are likely to be similar to those of disabled persons, depending on their functional limitations. **General population** The level of accessibility of websites is unlikely to have any major impacts on non-disabled persons except from their easiness to be used in mobile devices. The accessibility of the built environment has impacts in particular on families with small children as well as tourists with temporary functional limitations. Problems and needs of these groups of people in relation to the built environment are likely to be similar to those of disabled persons, depending on their functional limitations.
Environmental impacts	0	The level of accessibility of websites for booking hospitality services online is not likely to have any major environmental impacts. While the overall consumption of Internet and computers will have an impact on the use of electricity, the number of hours spent on researching and booking hospitality services online is likely to be limited on a yearly basis. The level of accessibility of the built environment is expected limited environmental impacts.
Overall score	0	
Average score	0	

13.6.2. Policy Options 2, 3 and 4 – Impact Assessments

Table 65: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Hospitality Services)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	✓✓✓(✓)	✓✓✓(✓)	✓✓✓✓	✓✓✓✓	✓✓✓✓✓	✓✓
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓✓✓(✓)	✓✓✓(✓)	✓✓✓✓	✓✓✓✓	✓✓✓✓✓	✓✓
Overall score	7	7	8	8	10	4
Average score	3.5	3.5	4	4	5	2

Table 66: Impacts of Policy Options 2, 3 and 4: Rating (Hospitality Services)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	(✓)	✓(✓)	✓✓✓
Environmental impacts	0	0	0

Table 67: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Hospitality Services)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible websites • Accessible hospitality facilities	**Websites** It is assumed that a range of three to all of those countries (12) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This may in turn have a positive impact on cross-border trade. In the baseline scenario, cross-border trade has been fixed at 10%. **The built environment** It is assumed that a range of half to all of those countries (27) that are expected to adopt technical accessibility requirements by 2020 as identified in the baseline scenario will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. Trade has been fixed at 40%.	**Websites** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in those 12 countries that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would mean that local businesses that are active in countries where accessibility requirements have not been adopted may face lower costs than companies that are based in countries where accessibility requirements are in place. This said, the companies that do not provide accessible websites may miss out on a large consumer group. It is expected that the cross-border trade could increase. **The built environment** Under this policy option common accessibility requirements and the mutual recognition principle would be applicable in the 27 countries (i.e. the entire EU) that are expected to have accessibility requirements in place by 2020. This would result in a reduction of those costs for business that are due to variations between national accessibility	**Websites** Under this policy option common requirements would have EU wide coverage. This would, in combination with the mutual recognition principle, result in an elimination of costs for business that are due to variations between national accessibility requirements. However, at the same time, business in those 15 countries that are not expected to have adopted accessibility requirements by 2020 would face additional costs for ensuring accessibility (to the degree that they are not already doing so on a voluntary basis). This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade. **The built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).*

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
			requirements. It is expected that the cross-border trade could increase.	
To increase competition among industry in the area of selected goods and services and in the area of public procurement		**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. three to 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market. **The built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, in turn have a positive impact on competition in this sector.	**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 12 countries. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. With 12 Member States, representing 85.3% of EU GDP, transposing this Directive it is expected that new market entry will increase competition due to lower costs and an effective increase of the market. **The built environment** The impact on new market entrants is likely to be limited. The positive impact on cross-border trade may, however, spur competition in this sector, as one of the barriers to cross-border provision of services would be removed.	**Websites** Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, across the EU. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market for accessible websites is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs (as in policy option 3) but also due to a larger market overall internal market for accessible websites. **The built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).*

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Websites for booking accommodation abroad; • Accessible hospitality facilities	**Websites** The benefits would be limited to those countries where accessibility requirements are in place. If no further countries would adopt accessibility requirements, the situation would remain the same as in the baseline scenario. In case further countries would introduce accessibility requirements than in the current situation, the introduction of the relevant accessibility requirements will lead to that a higher number of disabled consumers may benefit from reduced prices online. Consumers that buy cross-border from countries where accessibility requirements are in place would also benefit. **The built environment** The main impact is likely to refer to the availability of information on the level of accessibility for consumers.	**Websites and the built environment** The types of impacts will be similar to those described for PO2, but the scale of the impacts is likely to be larger than PO2 in line with the expected increased number of countries that would have the same requirements in place.	**Websites** The types of impacts will be similar to those described for PO2 and PO3, but the scale of the impacts is likely to be larger than both options. **The built environment** *See PO3 (the impact would be the same, since the policy options would have the same coverage).*
Environmental impacts	*No explicit requirements.*	None of the policy options is likely to leave a major environmental footprint. Action in this area is expected to have a limited but positive impact on the take up of hospitality services across borders (which would result in environmental impacts due to increased travel e.g. by plane, bus, car or boat) or of Internet / computer uptake and use (which would result in environmental impacts due to changes in the consumption of electricity) but rather on the price of those services for consumers.		

14. Public Procurement

14.1. Base figures

Problem Assessment (2011) and Baseline Scenario (2020)	
Market turnover in 2011	2.406.980.000.000
CAGR	0,0%
Market turnover in 2020	2.406.980.000.000
Share of publicly procured goods that can be linked to accessibility	62,4%
Total turnover of publicly procured goods / services linked to accessibility	1.501.426.398.151
Current share of public authorities including accessibility/design-for-all requirements in the award criteria	6,4%
Share of costs of accessibility for businesses with regard to public tenders (development costs included)	1,0%
Share of ongoing costs	0%
Share of Cross-border trade	8,5%
Number of countries for which legislation could be identified	
In 2011 (Sample size: 9)	1
In 2020 (extrapolation to EU level)	27
Share of GDP for relevant countries	
In 2011	
1 Member State has legislation in place	13,8%
In 2020	

27 Member States have legislation in place	100%
Correction factor	100%
Share of Additional accessibility costs due to understanding different accessibility requirements across borders	1%

14.2. Effects of the problem on consumers

Public procurement is a business-to-business market. Hence, consumers are expected not to directly face barriers with regard to publicly procured goods and services. Indirect benefits for consumers can, however, be expected, for example, linked to more accessible public goods/services provided as a result of accessible public procurement such as the built environment (in relation to transport and government buildings), self-service terminals (in relation to transport) and websites (concerning public websites including those of public transport companies). Accessible goods and services are also essential for the employees of public administrations. Having accessibility built in the goods and services that public authorities purchase reduces the level of assistive solutions that need to be provided by public authorities leading to savings.

14.3. Assessment of the impacts per policy option

14.3.1. Policy Option 1: Baseline Scenario – Impact Assessment

Table 68: Effectiveness and Efficiency of Policy Option 1 (Baseline Scenario, Public Procurement)

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	0	0	Over the next years, accessibility requirements covering public procurement can be expected to be adopted by all 27 EU Member States due to the obligations for the MS under the UNCRPD. The revised Public Procurement Directives making accessibility compulsory are likely to be used as an inspiration by EU Member States adopting legislation containing accessibility requirements to be used in public procurement. Several Member States have already done so like Italy for example. Some divergences can be expected, thus hampering cross-border trade. Current efforts will potentially be fostered by currently on-going standardisation work at the EU level.
To increase competition among industry in the area of selected goods and services and in the area of	0	0	The expected variations between national technical accessibility requirements are likely to make it difficult for new market entrants, in particular, to engage in cross-border trade. Differences between legislation in the

Policy Objectives (Assessment criteria)	Rating		Explanation
	Effectiveness	Efficiency	
public procurement			countries are likely to have a negative impact on the industry.
Overall score	0	0	
Average score	0	0	

Table 69: Impacts of Policy Option 1 (Baseline Scenario, Public Procurement)

Assessment criteria	Rating	Explanation
Social Impacts (impacts on different groups)	0	**Disabled persons** The increased number of countries that are expected to adopt accessibility requirements concerning public procurement is likely to have a positive impact on the level of accessibility of goods and services that are used by the public, e.g. built environment, Information kiosk, web sites, and public transport. This means that more disabled people are likely to be able to have access to build environment, ICT, and transportation. Disabled persons and elderly will be able to benefit of better choice. **Elderly** Elderly are expected to benefit from accessible public procurement in the same way as persons with disabilities do. **General population** The level of accessibility of public procurement is unlikely to have any major impacts on non-disabled persons.
Environmental impacts	0	No major environmental impacts can be associated with the accessibility of public procurement.
Overall score	0	
Average score	0	

14.3.2. Policy Options 2, 3 and 4 – Impact Assessment

Table 70: Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating (Public Procurement)

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
To improve cross-border trade in the area of selected goods and	✓	✓	✓✓	✓✓	✓✓	✓✓

Policy Objectives (assessment criteria)	PO 2 Recommendation		PO 3 Directive (partial coverage)		PO 4 Directive (full coverage)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
services and in the area of public procurement						
To increase competition among industry in the area of selected goods and services and in the area of public procurement	✓	✓	✓✓	✓✓	✓✓	✓✓
Overall score	2	2	4	4	4	4
Average score	1	1	2	2	2	2

Table 71: Impacts of Policy Options 2, 3 and 4: Rating (Public Procurement)

Assessment criteria	PO 2 Recommendation	PO 3 Directive (partial coverage)	PO 4 Directive (full coverage)
Social Impacts (impacts on different groups)	✓	✓✓✓	✓✓✓✓
Environmental impacts	0	0	0

Table 72: Assessment of Impacts of Policy Options 2, 3 and 4: Explanation of Ratings (Public Procurement)

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (in this case: full coverage)	PO 4 Directive (full coverage)
Effectiveness and Efficiency of Policy Options 2, 3 and 4: Rating				
To improve cross-border trade in the area of selected goods and services and in the area of public procurement	Companies that are active on the EU market would have to ensure / provide the following: • Accessible information concerning the accessibility of the good / services • Accessible goods / services that are subject to the actual public procurement process	It is assumed that either 14 (half of the) EU Member States or 27 EU Member States that adopt technical accessibility requirements by 2020 will follow the Recommendation. Costs related to diverging national accessibility requirements are expected to decrease accordingly. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. In the baseline scenario, cross-border trade has been fixed at 8.5%.	Under this policy option common accessibility requirements would also be applicable in all 27 EU Member States. This would result in a reduction of those costs for business that are due to variations between national accessibility requirements. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. Similar to PO2, it is expected that the cross-border trade could increase.	Under this policy option common requirements would also have EU wide coverage. This would result in an elimination of costs for business that are due to variations between national accessibility requirements. This would in turn lead to a level playing field for companies, which is expected to have a positive impact on the possibilities for cross-border trade. The policy option is expected to have a positive impact on cross-border trade.

Policy Objectives / Assessment criteria	Broad types of impacts expected to result from the technical requirements	PO 2 Recommendation	PO 3 Directive (in this case: full coverage)	PO 4 Directive (full coverage)
To increase competition among industry in the area of selected goods and services and in the area of public procurement		Positive impacts on competition are expected in those countries that are covered by the common accessibility requirements, i.e. 14 EU Member States. Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. The extent to which new market entry can be expected to spur competition is linked to amount of countries that follow the Recommendation, i.e. the more Member States adopt the technical requirements proposed in the Recommendation the more likely it is that new market entrants compete on the internal market.	Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Their accessible goods and services can be offered to public authorities across borders without having to adapt requirements. Companies can concentrate in competing with their peers to sell to public authorities the most accessible goods and services. New market entry will increase competition due to lower costs and an effective increase of the market.	Given that cross-border trade is expected to increase and the costs for understanding different requirements across Member States has been removed, more companies may enter the market. Under this policy option the Internal Market is effectively based on common accessibility requirements and therefore not only is new market entry likely based on lower costs as in policy option 3 but also due to a larger market overall internal market for accessible public procurement.
Impact of the Policy Options on social groups and the environment				
Social Impacts (impacts on different groups)	Disabled consumers would be ensured (in line with the coverage of the policy option) accessible: • Information concerning the accessibility of the good / service; • Accessible goods / services that are subject to the actual public procurement process	It is assumed that 14 EU Member States will adopt legislation due efforts under the UNCRPD and the Public Procurement Directive. However, costs/benefits for consumers cannot be calculated due to the diverse nature of the public procurement and the variety of industries involved.	The types of impacts will be similar to those described for PO2 but the scale of the impact is expected to be higher as it is expected that 27 EU Member States adopt accessibility requirements. Impacts can, however, not be quantified.	The types of impacts will be similar to those described for PO3. The scale of the impact is expected to be similar.
Environmental impacts	*No explicit requirements.*	No major environmental impacts can be associated with the accessibility of public procurement.		

ANNEX 8: PUBLIC PROCUREMENT INCLUDING PUBLIC AND TOTAL DEMAND BY PRODUCT IN 2005 (ALL PRODUCTS)

The following list of goods and services provide an overview of the key relevant goods and services for accessibility[13].

Public and total demand by product in 2005 (all products)

Short Name of Product	Priority Products relevant for accessibility
Products of agriculture	No
Products of forestry	No
Fish and other fishing products	No
Coal and lignite; peat	No
Crude petroleum/natural gas	No
Uranium and thorium ores	No
Metal ores	No
Other mining products	No
Food products and beverages	Yes – labelling
Tobacco products	No
Textiles	Yes – labelling
Wearing apparel; furs	No
Leather and leather products	No
Wood and products of wood	No
Pulp, paper and paper products	No
Printed matter/recorded media	Yes
Coke, refined petroleum prod	No
Chemicals/chemical products	Yes- labelling

[13] FINAL REPORT CROSS-BORDER PROCUREMENT ABOVE EU THRESHOLDS http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/cross-border-procurement_en.pdf

Rubber and plastic products	No
Other non-metallic min. prod	No
Basic metals	No
Fabricated metal products	No
Machinery and equipment n.e.c.	Yes
Office machinery/computers	Yes
Electrical machinery/apparatus	Yes
TV/communication equip.	Yes
Medical etc instruments	Yes
Motor vehicles/ trailers	Yes
Other transport equipment	Yes
Furniture/other manufact. Goods	Yes
Secondary raw materials	No
Electrical energy/gas/steam	No
Collected and purified water	No
Construction work	Yes
Trade/ maintenance/repair	Yes
Wholesale trade	No
Retail trade services	Yes
Hotel and restaurant services	Yes
Land transport	Yes
Water transport services	Yes
Air transport services	Yes
Auxiliary transport services	Yes
Post/Telecommunication	Yes
Financial intermediation	Yes

Insurance/pension funding	Yes
Auxiliary fin. intermediation	Yes
Real estate services	Yes
Renting services of machinery	Yes
Computer and related services	Yes
Research and development	Yes
Other business services	No
Public administration	Yes
Education services	Yes
Health and social work services	Yes
Sewage/refuse disposal serv.	No
Membership organisation serv.	No
Recreational, cultural services	Yes
Other services	-
Priv. households with empl. pers	Yes
TOTAL	59
TOTAL - ACCESSIBILITY RELEVANT PRODUCTS	33

The accessibility relevant goods and services in public procurement

The relevance of public procured goods, as laid down in the proposed rules on public procurement, is the intention that the goods and the services would be used by persons.

Furthermore, not all goods and services which are intended for people are equally accessibility relevant. Guided by the common practices and using the possibility of exception in duly justified cases, the contracting authorities will naturally make their own selection criterion. All raw materials and other large and undefined categories of products were therefore in principle excluded from the list as they are not directly used by people, even if such categories may potentially include some accessibility relevant goods and services – ex. wood and products of wood, fabricated metal products. On the contrary, the list contains corresponding categories, which are more specific and have a more obvious accessibility relevance hence being identified as a priority. Such categories include furniture (relevant for wood products) or machineries (relevant for fabricated metal products). Two rather general

categories were nonetheless included in the list of accessibility relevant goods and services because of their specific nature. Chemical products were kept on the list because of the importance of labelling of those products for safety of persons who may use them. Textiles were also kept in the list.

Finally, it must be pointed out that the above selection is approximate and only identifies priorities. It was done for the purpose of this report and in particular to estimate the size and value of the relevant markets. The national contracting entities are not bound by the above list and they will evaluate the situation acting within the framework of the EU rules on public procurement and on case by case basis. Only 1/5 of total public expenditure on goods and services is covered by the EU Public Procurement Directives. Indeed, EU rules on public procurement[14] only concern transactions which value reach high thresholds (5 000 000 EUR for works contracts, 400 000 EUR for supplies contracts and from 200 000 to 130 000 EUR for certain services and design contracts[15]). The same thresholds are foreseen in the relevant provisions of the proposed Public Procurement Directives.

Consequently the fact that a category is not used for the counting cannot imply its exclusion from the obligation under the Directive.

While the table for public demand subject to public procurement includes in total 59 products, 33 of them are relevant for accessibility. Accessibility relevant products correspond therefore to about 52% of all procurement products and to 63% of all procurement products in terms of value of contracts.

Once more it is important to note that this concerns goods and services that are procured by contracting entities, for example some of the public procurement bids covered by the Utilities Directive concern the supply of water or gas- such supply contracts whose accessibility relevant is less than for other goods and services like for example transport, ICT, or constructions work[16]. However, other for contracts covered by the public procurement Directives accessibility is a priority hence accessibility shall be in principle taken into account by the contracting entities when drafting technical specifications.

In fact, as shown in the table, the priority accessibility relevant goods and services which are covered by the EU rules on public procurement would, similarly as all other goods and services, typically concern the areas which are most relevant for the socio-economic integration of persons with disabilities into societies, i.e. the areas of built environment, ICT and transport (without however being limited to those areas). Accordingly, typical accessible goods and services covered by the EU rules on public procurement will include for instance contracts for construction of public buildings and built environment in general, all transport relevant contracts including the means of transportation, the relevant built environment (train-stations) as well as accessible methods of purchasing tickets (websites and ticketing machines). In the area of ICT, the rules will cover public purchases of computers (software and hardware), other devices or services enabling accessible transfer of information, (services

[14] Commission Regulation No 1251/2011 of 30 November 2011 amending Directives 2004/17/EC, 2004/18/EC and 2009/81/EC of the European Parliament and of the Council in respect of their application thresholds for the procedures for the awards of contract.

[15] http://ec.europa.eu/internal_market/publicprocurement/rules/current/

[16] The proposed EU rules on public procurement specify that: "for all procurement the subject of which is intended for use by persons, whether general public or staff of the contracting authority, [the] technical specifications shall, except in duly justified cases, be drawn up so as to take into account accessibility criteria for people with disabilities or design for all users".

enabling contacts with public authorities emergency services and the relevant equipment, public on-line publications) as well as telephones or mobile phones.

Entities concerned:

Entities concerned: there are about **250 000 government departments**, agencies, public bodies and other public entities involved in the award and management of public contracts.

ANNEX 9: IMPACT ON FUNDAMENTAL RIGHTS

The Charter of Fundamental Rights of the European Union ('the Charter') became legally binding following the entry into force of the Lisbon Treaty. All legislative proposals of the Commission are subject to a systematic check to ensure their compliance with the Charter. This annex evaluates in detail the impact of the Commission proposal suggested in this Impact Assessment on the relevant fundamental rights embodied in the Charter. They include: the freedom to conduct a business (article 16), the right to integration of persons with disabilities (article 26), and the freedom of movement and residence (article 45).

On the whole, the Commission proposal would have a positive impact on the rights provided for in the Charter particularly with regard to their access by persons with disabilities. However, the scale of the positive impact on fundamental rights may vary. While regarding some fundamental rights the impact of the proposal would only be positive, as far as other rights are concerned the impact would be mixed although in balance the proposal would not have an overall negative impact on any of the abovementioned rights.

I – A Positive Impact

An initiative which would facilitate the functioning of the internal market concerning accessible goods and services would have a positive impact on several rights recognised for in the Charter. Regarding persons with functional limitations, including persons with disabilities, an EU initiative would have a beneficial impact and directly or indirectly facilitate the exercise of the following rights: the right to human dignity (article 1 of the Charter), the right to integrity of the person (article 3). Accessibility will have a positive impact on access to employment of persons with disabilities) the rights of the elderly (article 25), the right to integration of persons with disabilities (article 26), and the freedom of movement and of residence (article 45). The two latter articles are examined in detail.

— *Article 26 Integration of persons with disabilities*

Article 26 provides that: «The Union recognises and respects the right of persons with disabilities to benefit from measures designed to ensure their independence, social and occupational integration and participation in the life of the community. »

According to the «Explanations relating to the Charter of Fundamental Rights»[17], the principle set out in this Article of the EU Charter is based on Article 15 of the European Social Charter of the Council of Europe and also draws on point 26 of the Community Charter of the Fundamental Social Rights of Workers. The latter provides that:

> «All disabled persons, whatever the origin and nature of their disablement, must be entitled to additional concrete measures aimed at improving their social and professional integration. These measures must concern, in particular, according to the capacities of the beneficiaries, vocational training, ergonomics, **accessibility**, mobility, means of transport and housing.»

It is also noteworthy that Article 15(3) of the revised Social Charter of 1996 provides that:

> «With a view to ensuring to persons with disabilities, irrespective of age and the nature and origin of their disabilities, the effective exercise of the right to independence, social integration and participation in the life of the community, the

[17] OJ C 303 of 14/12/2007, p.17.

> Parties undertake, in particular: (…) to promote their full social integration and participation in the life of the community in particular through **measures**, including technical aids, **aiming to overcome barriers to communication and mobility and enabling access to transport, housing, cultural activities and leisure**.»

It follows that the Commission proposal, in as much as it would result in the increase of accessibility of [the removal and prevention of barriers to the access to] goods and services available to persons with disabilities, would simultaneously also embody the right provided in Article 26 of the Charter, since it would facilitate the «independence», «social integration» and «participation in the life of the community» of persons with disabilities.

Furthermore given the strong correlation between disability and ageing it would positively contribute to the rights of elderly persons in particular the proposal will have a positive effect on their independence and participation in social and cultural rights in line with Article 25.

— Article 45 on the freedom of movement and residence

The objective of the suggested Commission proposal is not the freedom of movement of persons at such, but the facilitation of the free movement of accessible goods and services in the internal market. Therefore, its proposed legal basis is Article 114 TFEU. However, the Commission proposal would also have an indirect positive impact on the freedom of movement and residence of EU citizens and of the entitled nationals of third countries. The harmonisation of accessibility requirements of goods and services across all Member States will not only benefit economic operators. It will also benefit citizens as consumers in cross border situations and thus make easy their movement. For example, if a person with a visual impairment can have better access to a website to buy flight tickets for cross border trips, the practical possibilities for her or him to effectively exercise the freedom of movement in the European Union are increased to the same extent.

II - A Mixed Impact

— Article 16 on the freedom to conduct a business

This Article recognises «[t]he freedom to conduct a business in accordance with Union law and national laws and practices (…).»

First and foremost, by increasing the potential of the internal market through the elimination of obstacles to trade, the initiative would facilitate the exercise of this right in cross borders situations.

However, in some cases an EU initiative which would facilitate the functioning of the internal market concerning accessible goods and services could also entail a limited restriction to the exercise of that freedom. In some Member States the initiative could result in the adoption of new rules, which would be added to those already existing at national level. However, the restrictions resulting from these new rules would be justified and proportional. Their main justification is the fact that they would result in an increase of the potential for intra-EU trade, which the economic operators themselves would benefit from. In addition, from a fundamental rights perspective, the new rules are also justified with a view to promoting other fundamental rights, such as those abovementioned.

In line with Article 52 of the Charter, in particular its paragraph 1, the new rules respect the principle of proportionality, since they are limited to what is necessary to meet the objective of facilitating the functioning of the internal market. The application of the new accessibility requirements is subject to the condition that they don't entail a disproportionate burden to the economic operators concerned. Moreover, these requirements would enter into force in a

progressive manner, which gives plenty of time for economic operators to adjust gradually to the investments necessary to benefit from an enlarged internal market.

Finally the Charter refers in article 53 on the "level of protection" to other international agreements to which the Union or all the Member States are party. In this context is important to mention that the EU and the majority of its Member States are already parties to the UN Convention on the Rights of Persons with disabilities. The purpose of the Convention is to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities. This proposal will facilitate the implementation of the obligations on accessibility in the UNCRPD facilitating a uniform level of protection across the EU and a common interpretation.

ANNEX 10: LIST OF ACCESSIBILITY RELEVANT EU ACTS

The present list lays down accessibility relevant EU acts. Its objective is to show a global and complete picture of accessibility relevant acts adopted and proposed at the EU level[18]. The list shows the current legal context in the area of accessibility and indicates possible added value of the envisaged new EU initiative. Such initiative would not amend the existing EU rules in the area of accessibility (i.e. it would be without prejudice to the existing provisions). It may however complete some of them.

The EU acts are divided into two main sections. Section I encloses EU acts that refer to accessibility in general terms – i.e. without providing for technical accessibility requirements/specifications. Section II includes EU acts that require accessibility and provide for technical accessibility specifications. Such distinction is important.

Besides, the list indicates that many of the already adopted EU acts referring to accessibility concern the well-functioning of the internal market and are based on the internal market legal basis. These are in particular those EU acts that refer to accessibility of particular goods and services directly (ex. lifts, packaging of medicines, construction products, buses, certain universal services such as telecommunication services and networks, broadcasting services) or indirectly (ex.: public procurement).

I. EU acts referring to accessibility without providing for technical accessibility requirements

This Section lists EU acts that refer to accessibility without laying down their own technical specifications. The list is divided into two subsections. The first presents acts that refer to goods and services indirectly (they are not specified and the list of the relevant goods and services is not closed). The second list includes all those acts that refer to accessibility of goods and services directly (they are specified).

1. Accessibility as a characteristic not related to particular goods and services: EU rules on public procurement and European Structural Funds

Public Procurement

According to the currently binding rules: "whenever possible" technical specifications set out in the contract documentation should take into account "accessibility criteria for people with disabilities or design for all users". The Commission proposals to revise this legislation go a step further. The draft Directives provide that, when the subject of procurement is intended for use by persons, the technical specifications shall "be drawn up so as to take into account accessibility criteria for people with disabilities or design for all users." This would be the new general rule; exceptions would be possible only "in duly justified cases." Moreover, according to the new proposals, when contracting authorities decide to award contracts on the basis of the most economically advantageous tender, the latter shall be identified based upon criteria which include, inter alia, accessibility and design for all users.

[18] Originally, the list was inspired by an Appendix to the Council decision 2010/48/EC of 26 November 2009 concerning the conclusion, by the European Community of the UN Convention on the Rights of Persons with Disabilities. The Appendix shows the EU competences in the area of disability, including accessibility. The present list is updated and lays down only those EU acts that refer to accessibility of certain goods and services directly (ex.: lifts) or indirectly (by referring to selection criteria ex. in public procurement). The list should be complete. Various accessibility relevant EU policies are nonetheless at constant development and thus this list should not be considered as final.

- Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 on coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors – the "Classical Directive"
- Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts – the "Utilities Directive"
- Proposal for a Directive replacing Directive 2004/17 - Proposal for a Directive of the European Parliament and of the Council on procurement by entities operating in the water, energy, transport and postal services sectors (SEC(2011) 1585}{SEC(2011) 1586
- Proposal for a Directive replacing "the Classical Directive" – Directive 2004/18- Proposal for a Directive of the European Parliament and of the Council on public procurement {SEC(2011) 1585 final}{SEC(2011) 1586 final}

Structural Funds

The currently binding EU Structural Funds refer to accessibility for disabled person as one of the criteria to be observed in defining operations co-financed by the Funds and to be taken into account during the various stages of implementation. It provides that "accessibility for disabled persons" shall be taken into account both in the selection of operations co-financed by the Funds and during the various stages of their implementation. In 2011, the Commission proposed to revise that Regulation, by requiring that accessibility shall be taken into account as regards the content of each operational programme, the activities of the monitoring committee, and the annual implementation reports to be submitted by Member States to the Commission. Annex IV of that proposal also establishes that, as general ex-ante conditionality, there must be a mechanism ensuring an effective implementation of the UN Convention on the rights of persons with disabilities.

- Council Regulation No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999;
- Proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund covered by the Common Strategic Framework and laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1083/2006 (COM/2011/0615 final - 2011/0276 (COD))

2. Provisions related to needs of persons with disabilities

Information and Communication Technologies

The EU approaches accessibility in the area of telecommunication mostly from the perspective of a universal service. Most of the EU provisions in this area have an enabling character: i.e. they lay down obligations or guidelines on the national regulatory authorities enabling them to address the needs of persons with disabilities. Only the Universal Service Directive lays down concrete obligation on the Member States. It concerns the application of universal service and the emergency services such as "112 number" and "116 number".

- **Framework Directive -** Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic

communications networks and services (Framework Directive) (OJ L 108, 24.4.2002, p. 33), as amended by Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 (OJ L 337, 18.12.2009, p. 37) and Regulation 544/2009 of the European Parliament and of the Council of 18 June 2009 (OJ L 167 29.6.2009, p.12)

The Framework Directive lays down obligations on the national regulatory authorities to address the needs of disabled users. It states that the national regulatory authorities shall promote competition in the provision of electronic communications networks, electronic communications services and associated facilities and services by inter alia: ensuring that users, including disabled users, elderly users, and users with special social needs derive maximum benefit in terms of choice, price, and quality.

- **Universal services Directive -** Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) (OJ L 108, 24.4.2002, p.51) as amended by Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009 (OJ L 337, 18.12.2009, p. 11)

The Directive refers to accessibility and affordability of specified universal services to disabled end-users, such as publicly available electronic communication services, directory enquiry services and directories provided by undertakings designated with universal service obligations, as well as ensuring equivalence in access and choice for disabled end-users provided by any undertakings providing publicly available electronic communications services. Several its provisions have an enabling character. However, the provisions related to universal service and emergency services impose an obligation on the Member States that disabled end-users have the access to emergency services equivalent to that enjoyed by other end-users.

- ***AVMS Directive* -** Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services (Audio-visual Media Services Directive) (OJ L 95, 15.4.2010, p.1)

Audio-visual Media Services Directive states that Member States shall encourage media service providers under their jurisdiction to ensure that their services are gradually made accessible to people with a visual or hearing disability.

- Proposal for a Directive on Web-Accessibility – Proposal for a Directive of the European Parliament and of the Council on the accessibility of public sector bodies´ websites COM (2012) 721 final

The proposal lays down accessibility requirements for a set of public sector bodies´ websites offering essential services to citizens. The proposal establishes accessibility requirements for the websites concerned. The proposal includes a presumption of conformity clause with harmonised European standards, meaning that websites concerned that meet the respective standards are presumed to be in conformity with the accessibility requirements set out in the proposal. The requirements are in line with the Success Criteria and Compliance Requirements of the Web Content Accessibility Guidelines (WCAG) 2.0 Level AA.

Passengers' rights

The EU acts in the area of passenger's' rights regulate the protection of, and assistance to, disabled persons and persons with reduced mobility at the EU level while travelling by different modes of transportation. These acts do not relate to accessibility of goods and services.

- Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91 (OJ L 46, 17.2.2004, p. 1)
- Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air (OJ L 204, 26.7.2006, p. 1)
- Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on rail passengers' rights and obligations (OJ L 315, 3.12.2007, p. 14)
- Regulation No 1177/2010 of 24 November 2010 of the European Parliament and of the Council concerning the rights of passengers when travelling by sea and inland waterway and amending Regulation (EC) No 2006/2004 (OJ L 334, 17.12.2010, p.1)
- Regulation No 181/2011 of the European Parliament and of the Council of 16 February 2011 concerning the rights of passengers in bus and coach transport and amending Regulation (EC) No 2006/2004 (OJ L 55, 28.2.2011, p. 1)

Construction products

- Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 lying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC (OJ L 88, 4.4.2011, p. 5).

The Regulation does not lay down an obligation to make products accessible. Annex to the Regulation refers to accessibility as one of basic requirements that may be taken into account when elaborating relevant standards.

Radio equipment and telecommunications

- RTD Directive - Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (OJ L 91, 7.4.1999, p. 10)

The Directive enables the Commission to decide that certain apparatus shall be constructed that it supports certain features in order to facilitate its use by users with disabilities. The Commission has not made a use of this provision yet.

Transport

- Directive 2008/57/EC of 17 June 2008 on the interoperability of the rail system within the Community (Recast) (OJ L 191, 18.7.2008, p.1)

The Directive lays down general accessibility requirements related to the train infrastructure and the rolling stock.

- Proposal for a Regulation on Union guidelines for the development of the trans-European transport network {SEC(2011) 1212}{SEC(2011) 1213}

According to the Regulation, development of the infrastructure of the trans-European transport network shall pursue the objectives of accessibility for elderly people, persons with

reduced mobility and disabled passengers. In particular, the transport infrastructure shall allow seamless mobility and accessibility for all users.

II. EU acts requiring accessibility of certain goods and services and providing for their technical accessibility requirements/specifications

This Section lists EU acts that refer to accessibility of particular products and lay down their technical specifications. These provisions are detailed enough to be directly applicable by economic operators. The new EU initiative would not be applicable to those acts.

Packaging of medicines

- Directive 2004/27/EC of the European Parliament and of the Council of 31 March 2004 amending Directive 2001/83/EC on the Community code relating to medicinal products for human use (OJ L 136, 30.4.2004, p. 34).

The Directive requires that the name of medicinal products is expressed in Braille format on the packaging. The marketing authorisation holder shall also ensure that the package information leaflet is made available on request from patient's organisations in formats appropriate for the blind and partially-sighted.

Lifts

- Directive 95/16/EC of the European Parliament and of the Council of 29 June 1995 on the approximation of the laws of the Member States relating to lifts (OJ L 213, 7.9.1995, p. 1), as amended by Directive 2006/42/EC of the European Parliament and of the Council on machinery, and amending Directive 95/16/EC (OJ L 157, 9.6.2006, p. 24)

The accessibility of lifts constitutes one of the essential health and safety requirements. Accessibility is also included in the relevant standard proving conformance with the Directive.

Transport

- Regulation (EC) No 661/2009 of the European Parliament and of the Council of 13 July 2009 concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 200, 31.7.2009, p. 1)

The Regulation requires accessibility for people with reduced mobility for certain classes of vehicles.

- Directive 2009/45/EC of 6 May 2009 on safety rules and standards for passenger ships (Recast) (OJ L 163, 25.6.2009, p. 1)

The Directive requires that Member States ensure safe access to persons with reduced mobility to passenger ships. Precise guidelines are laid down in the relevant annex.

- Commission Decision 2008/164/EC of 21 December 2007 concerning the technical specification of interoperability relating to ‘persons with reduced mobility’ in the trans-European conventional and high-speed rail system (OJ L 64, 7.3.2008, p. 72)

The Decision on the interoperability of the high-speed rail system lay down detailed technical specification related to accessibility of the relevant train infrastructure and of the rolling stock including train equipment.

ANNEX 11: SMALL AND MEDIUM ENTERPRISES, INCLUDING MICRO-ENTERPRISES: CONSULTATIONS AND ANALYSIS OF IMPACTS (SMES TEST)

1. Introduction

In order to minimise the regulatory burden on very small companies to the absolute minimum, the Commission outlined in November 2011 its new policy on "Minimizing regulatory burden for SMEs - Adapting EU regulation to the needs of micro-enterprises"[19]. The implementation of this policy on micro-enterprises is detailed in operational guidelines[20]. According to this new policy, the Commission's preparation of all future legislative proposals is based on the premise that in particular micro-enterprises[21] should *a priori* be excluded from the scope of the proposed legislation unless the necessity and proportionality of their being covered can be demonstrated. Where micro-enterprises must be covered by legislative proposals for public policy reasons recourse to adapted solutions and lighter regimes will be sought concerning all forms of regulatory burden including, in particular, regarding administrative requirements. The demonstration of the proportionality of covering micro-enterprises and the assessment of possible adapted solutions should be included in the Impact Assessment, thus adding a specific micro-enterprises dimension to the 'SME test'.

In line with this Commission policy, it has been decided to include micro-enterprises in the scope of application of the policy action under consideration. The analysis below focusses therefore on SMEs, including micro-enterprises.

Due to their size and scarce resources, micro, small and medium-sized enterprises (SMEs)[22] can be affected by the costs of regulations more than their bigger competitors. At the same time, the benefits of regulations tend to be more evenly distributed over companies of different sizes. SMEs may have limited scope for benefiting from economies of scale. SMEs in general find it more difficult to access capital and as a result the cost of capital for them is often higher than for larger businesses. SMEs play a key role in shaping Europe's economy, accounting for 99 % of enterprises, of which 92 % are micro-enterprises. They provide more than two thirds of private sector employment and play a key role in economic growth. Generally, on average, where a big company spends one euro per employee to comply with a regulatory duty a medium-sized enterprise might have to spend around four euros and a small business up to ten euros.[23] Depending on the relevance of the initiative for SMEs and in particular micro-enterprises, appropriate consultation to ensure input on the needs and interests of SMEs, in particular micro-enterprises alongside large enterprises, should be used.[24]

[19] COM(2011)803

[20] Ref. Ares(2012)557005 - 07/05/2012

[21] Enterprises with less than 10 employees and a turnover or balance sheet total equal to or less than €2 million.

[22] The definition of an SME covers all enterprises with less than 250 employees and equal to or less than either €50 million turnover or €43 million balance sheet total. Micro-enterprises are the smallest category of SME, with less than ten employees and a turnover or balance sheet total equal to or less than €2 million.

[23] Report from the Expert Group on "Models to Reduce the Disproportionate Regulatory burden on SMEs", May 2007.

[24] Annex 8.4(1) of the Impact Assessment Guidelines contains specific suggestions on how to consult SME representatives.

2. Consultation of small and medium-sized enterprises

The SME Panel was conducted through Enterprise Europe Network between end of April and end of July 2012. 180 companies responded to this survey on accessibility, which focused on mainstream accessible goods and services used by most people, not the so-called assistive devices[25]. The aim of this survey was to gain a better understanding of the most important sectors and to identify problematic issues from the industry's perspective, which may arise as a result of current legal fragmentation concerning the regulation of accessibility of goods and services and market issues. Of particular importance is the market supply of goods and services for which accessibility is included in the design stage to take into account the needs of the widest variety of users (i.e. Design for All/Universal Design).

The summary of the analysis is presented along the following topics:

- General information about the companies;
- How accessibility is considered in the organisation;
- Obstacles to producing and providing accessible goods and services;
- Estimates of the costs and benefits derived from providing accessible goods and services; and
- Possible EU measures to encourage companies to provide more accessible goods and services.

General information about the companies

The 180 companies which responded to the survey are established in 14 of the Member States. They operate in one or more of the Member States, covering them all, and some also trade beyond EU borders. 42% of the respondents are micro companies (1-9 employees), 29% are small companies (10-49 employees), 17% are medium companies (50-249 employees), 10% are large companies (more than 250 employees) and 2% did not specify their size.

The main economic sectors in which companies surveyed operate are "Manufacturing" and "Professional, scientific and technical activities". There is also a significant presence of companies falling under the sectors of "Information and communication", "Wholesale and retail trade; repair of motor vehicles and motorcycles", and "Construction".

More than half of the respondents sell goods or services to public authorities and four out of five of these companies have stated that accessibility requirements are sometimes or frequently included in tender specifications.

Approximately two in three companies surveyed declared they are familiar with the concept of accessibility as outlined in the introduction to the survey. There is some correlation between the size of the companies surveyed and their familiarity with the concept of accessibility, since that familiarity is higher in medium-sized or large companies than it is in small or micro ones. Medium-sized enterprises have a greater familiarity with the concept of accessibility than large ones, although the differences are not significant.

About half of the companies surveyed (88 of 180) provide customers accessible goods and services. There is also a clear correlation between the provision of accessible goods and services and familiarity with the concept of accessibility. The majority of the organisations

[25] i.e. special devices used to replace, compensate for, or improve the functional abilities of people with disabilities like mobility and visual/hearing aids, orthotics/prosthetics, speech devices, medical supplies, environmental controls, and respiratory devices.

that provide accessible goods and services operate in the sectors of "built environment" or "information and communication", but also companies providing transportation of goods and services, legal advisory services, accessibility consultancy and training, consultancy and auditing services.

How accessibility is considered in the organisation

For the 88 respondents that provide accessible goods and services, the most important reason for doing so is corporate social responsibility / corporate image of the company. The importance of this reason has been evaluated with an average of 4.7 on a scale of 1 to 6, where 1 means that it is not an important reason to provide accessible goods and services and 6 is a very important reason. Other reasons deemed important are compliance with legislation, the fact that accessibility features are a good way of reaching more clients and that accessibility involves no significant additional costs (with mean values of 4.6, 4.0 and 3.6 respectively).

In general, companies surveyed give less importance to the profitability of providing accessible goods and services, and the fact that accessibility allows participation in additional public procurement tenders (mean values of 3.4 and 3.2).

Companies that do not provide accessible goods and services (or those that do not know if they do so) considered that the most important factor that could cause additional cost to them if they did provide accessible goods and services is the time spent to understand the requirements, standards and legislation about accessibility in their country. This factor has been rated with 4.2 on a scale of 1 to 6.

Other factors deemed important are the additional time and costs necessary to study the market and to estimate the necessary investments (rated to 3.8), the time spent understanding requirements, standards and legislation in other Members States when trading cross-borders and the additional cost of designing accessible goods or services (both rated to 3.7), additional manufacturing costs (3.6), training staff about accessibility (3.5) and costs relating to getting legal expertise on accessibility legislation when trading in other Member State (3.4). Additional costs related to distribution and training of staff on the diverse accessibility requirements in other Member States and those arising from marketing and advertising in the country of origin or third countries have a somewhat smaller, but still significant ranking (between 3.3 and 2.9 average rating on the 1 to 6 scale used).

Companies that do not provide accessible goods and services tend to give more weight to the factors that may cause costs in the provision of accessible goods and services than companies that provide this kind of goods and services. The only factor of cost that is seen less important by companies that do not provide accessible goods and services in comparison with those that do is training staff about accessibility.

Obstacles to producing and providing accessible goods and services

Three in four companies that provide accessible goods and services declared never having to deal with accessibility standards of other countries that were different from those applied in the country they are based, although it should be noted that many of them do not export goods and services to other Member States. Out of all the companies that provide accessible goods and services, 15% reported having to deal with it. Considering only exporting companies that provide accessible goods and services, the percentage of those who have had to deal often or very often with accessibility rules different from the ones in their main location rises to 30%.

Actual or potential obstacles to the provision of accessible goods and services to the surveyed companies seen as most important are lack of information and guidelines on accessibility (scored 3.8 on a scale of 1 to 6 where 1 means 'not important' 6 means 'very important'), lack of knowledge of accessibility, and complexity of the legislation (both scored 3.7). Also considered as major obstacles are the complexity of standards and the weak aggregate demand for goods and services accessible (both with a value of 3.6 on the scale proposed), complexity of information and guidelines and lack of knowledge about the size of investment required (both factors scored 3.5) and the unwillingness of customers to pay more for accessible goods and services (3.4).

With a score somewhat lower, but not negligible, are rated other factors such as the lack of standards and legislation, the established strong position of some competitors in the market and the differences in the accessibility requirements within countries and between EU Member States (all these factors scored 3.2), and uncertainties about short-term performance of the investments required (3.1).

Estimates of the costs and benefits derived from providing accessible goods and services

Respondent’s perceptions on the effect that providing accessible goods and services has on the number of customers are mostly positive. While 25% consider that the effect was significant or very significant, and 28% that the effect was positive but slight, 21% noted that in general, accessibility has not impacted significantly on the number of customers, and 23% said, more categorical, not having experienced any increase in their clientele derived from improving the accessibility of its goods and services.

Perceptions of companies are somewhat less positive when referring to the effect that improvements in the accessibility of their goods and services have had on their financial benefits. The proportion of those who believe that these effects were significant or very significant is still 20%, and of those that consider the effects have been slight were 18%. On the contrary, those that believe that in general its benefits have not been impacted were 34%. Those who think that the improvement of accessibility has not had any effect at all on its results were 23%. As one would expect, an increase in customers correlated to a certain extent with an increase in financial benefit.

In conclusion, 55% of companies that provide accessible goods and services have increased their clientele as a result of improving the accessibility of their goods and services, and 39% have experienced increases in their financial benefits for this reason.

The proportion that represents accessible goods and services on the total of the supply of goods and services provided by the companies who responded to the survey varies greatly, and so is the proportion of total revenues related to accessible goods and services. Although there is a correlation, it is not possible to establish a direct link between the share of

accessible goods and services and their revenues. Overall the proportion of total revenues related to the provision of accessible goods and services is perceived as lower than the proportion that represents accessible goods and services on total offer of the company.

Providing accessible goods and services may pose specific costs. The main factors considered by the respondents that may cause costs when providing accessible goods and services are training staff about accessibility and the time spent understanding requirements, standards and legislation in their own Member State (both with an average rating of 3.7 on a 1 to 6 scale where 1 means 'not important' 6 means 'very important'). Also cited as relatively important were the additional design costs (3.5), the time spent understanding requirements/standards/legislation in other Member States when trading cross-border (3.3), the additional manufacturing costs (3.3), the training of staff about diverse accessibility requirements including legislation in other Member States (3.3), and the cost for getting legal expertise on accessibility legislation when trading in other Member States (3.0). Other factors such as additional costs for marketing and advertising or in the delivery of goods and services are considered less important.

The estimated extra production cost directly attributable to the provision of accessible goods and services compared to those who do not provide them also has a very wide range of variation, although almost half of surveyed companies that provide accessible goods and services consider these extra costs below 5% or non-existent.

For 77% of the companies that provide accessible goods and services (including the ones previously mentioned) the extra production costs attributable to the provision of goods and services that are accessible represents a maximum of 30% of their costs. The remaining 17% of companies have stated that their extra costs are equal to or greater than 31%, however, these costs are offset by the income received, as they all have experienced increases in the number of customers and profits resulting from the provision of goods and services accessible to over 31%. Compared to all the surveyed companies and to all companies that provide accessible goods and services, these companies facing high extra production costs are larger, sell more to public authorities and frequently found more accessibility requirements for goods and services included in the tender specifications.

Perceptions of the companies surveyed show some confidence in the market potential for accessible goods and services. Almost 50% agree with the statement "For my company, the group of persons with disabilities and older persons offer an interesting market potential". A very close degree of agreement was raised in the statement “It is profitable for my company to invest in accessible goods and services as there is a reasonable level of demand and customers are willing to pay". However, there is slight less optimism about the chances of selling more goods and services to people with disabilities and elderly people if these were more accessible for them (still 33% of the companies agree with the statement).

Confidence in the positive effect that would result from having common European standards related to accessibility requirements is also moderate. The statements "Common rules with regards to accessibility requirements make it easier for companies to sell to public authorities in other Member States" and "For my company having common rules in Europe on accessibility will make it easier to operate in another Member State" have obtained an agreement rate of 55% and 50%, respectively.

The level of agreement with statements about market potential of accessibility and effect from having common European standards on accessibility disaggregated by provision or not of accessible goods and services is the following: In general, companies that provide accessible goods and services are more optimistic about the market potential of these goods or services,

and have a greater confidence in the positive effects that would result from having common European standards on accessibility.

Possible EU measures to encourage companies to provide more accessible goods and services

Among the potential measures that the EU could take to encourage companies to produce more accessible goods and services, the respondents valued as most useful the financial support (subsidies, tax incentives and R&D grants), the EU funding of a training programme for the industry on how to implement and monitor accessibility requirements and the adoption of common standards setting out accessibility requirements (instead of letting each Member State have national rules on accessibility). The usefulness of these measures has been agreed by the companies, respectively, with 84%, 76% and 74%.

In addition, other measures considered useful by the majority of respondents include EU support to self-regulation by industry (67%), the adoption of EU legislation to make the purchasing of accessible goods and services compulsory in public procurement (65%) and the adoption of EU rules containing general obligations for manufacturers and service providers to provide accessible goods and services (65%).

3. Analysis of impacts on small and medium-sized enterprises (SME test)

3.1. **Impact of the options on SMEs**

The divergences in the national accessibility requirements in the current situation generate higher costs for all types of economic operators, but for SMEs they represent relatively heavier costs than for large economic operators. An SME will have smaller resources to obtain expertise in the applicable legislation or technical standards than a large economic operator as well as it will be less equipped to perform tests and conduct controls and risk analysis for its goods and services. If these divergences in national accessibility requirements will be eliminated it can be expected that they would produce positive effects on all types of economic operators, but with respect to SMEs, these effects may be more accentuated, *i.e.* have relatively higher positive benefits. A common clear set of accessibility requirements will become more easily accessible to a higher number of SMEs. The cost savings resulting from the enhanced legal clarity would make it possible for a number of SMEs to become able to follow and respect all accessibility requirements.

On the other hand, the costs for SMEs to comply with the applicable accessibility requirements, even if harmonised at EU level, may be more burdensome for SMEs, as they may have fewer financial and human resources to ensure compliance compared to big economic operators.

However, having common clear rules in Europe will facilitate the entering of SMEs in new markets in other Member States without the need of worrying about the compliance of their products and having to spend further resources on technical and legal advice.

Comparing potential benefits with potential costs, policy action in this area would result in a positive balance for both SMEs and other economic operators concerned.

3.2. **Differentiated treatment of SMEs and other economic operators**

Applying a differentiated treatment for instance with respect to the level of compliance with accessibility requirements or with respect to reporting obligations in order to further reduce the relative imbalance which the applicable accessibility legislation has on the SMEs does not

appear to produce the desired outcomes for SMEs. The impacts of such option would be similar to the abolition of harmonised accessibility requirements, *i.e.* legal problems, internal market difficulties, discrimination issues, market distortions etc. Moreover, the differentiated treatment of SMEs and other economic operators would be – as far as accessibility requirements are concerned – inapplicable in practice because it would require Member States to differentiate in their enforcement between SMEs and other companies.

This differentiated treatment of SMEs would result in creation of two production and marketing chains: one for goods and services produced by 'big' companies and one for SMEs. This would bring a number of negative results for SMEs: consumers might at the end prefer fully accessible goods and services, therefore the competitiveness of SMEs would suffer in general. At the same time, it would negatively impact SMEs producing fully accessible goods and services, since goods and services made and sold by SMEs in general would get in the perception of consumers the label of being not fully accessible and it would be very difficult for SMEs producing high quality and fully accessible goods and services to convince the consumers about the opposite.

Last but not least, "an SME exemption or a lighter regime" from accessibility rules would paradoxically provide incentive for economic operators to ignore accessibility rules and to market goods and services which would not be accessible.

3.3 **Mitigating measures**

As part of the contribution to the creation of growth and jobs, the reduction of regulatory burden, in particular in relation to SMEs, is being continuously considered when reviewing and preparing new legislation.

In this particular case, the provision that fundamental alterations to the good and/or service do not need to be made, means that SMEs (and other economic operators) would not have to deviate from their product. Furthermore, the compliance with the requirements should only be made to the extent that it will not impose a disproportionate burden to the economic operator concerned. These provisions could be regarded as particular mitigating measures in order to alleviate burdens resulting from the EU harmonisation of accessibility requirements for micro, small and medium-sized enterprises. Costs of compliance will be further reduced in case of the development of European standards which would give presumption of conformity with the harmonised accessibility requirements as standards will provide detailed guidance regarding what to implement and even how. This could be also seen as a mitigating measure, since such standards would considerably reduce compliance costs, in particular for micro, small and medium-sized enterprises.

4. SME test summary

Consultation with SME representatives	SMEs were specifically consulted through the SME Panel during the months of April – July 2012.
Preliminary assessment of business likely to be affected	According to the findings of the consultation, SMEs are among the economic operators affected by the problems identified.
Measures of impact on SMEs	If the envisaged options are applied indistinctly to all economic operators irrespective of their size, it can be expected

	that they would produce the same positive effects on all types of economic operators. With respect to SMEs, these effects may be more accentuated since the costs savings resulting from the enhanced legal clarity would make it possible for certain SMEs to become able to follow and respect all accessibility requirements. As regards the negative impacts, it did not appear in the impact assessment that the overall impact of this policy action would bring about significant costs increases to SMEs as well as to other economic operators.
Assessment of alternative options and mitigating measures	There was no indication of the need for SMEs specific measures in order to ensure compliance with the principle of proportionality. In particular due to the practical problems that would likely result from applying a differentiated treatment to SMEs and other economic operators as far as accessibility requirements are concerned. However, the application of certain measures, such as the application of the rules of "fundamental alteration" and of "disproportionate burden", together with the use of European standards, could be regarded as mitigation measures.