One Corridor – One Strategy

Joint Regional Development for the North-South Corridor

ROTTERDAM

CODE24

CORRIDOR
DEVELOPMENT

GENOA

Identification of hindrances, bottlenecks and important location factors for logistic companies along the corridor Rotterdam-Genoa

Results of an Internet survey 2012

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Abstract

The project 'CODE24' intends the interconnection of economic development, spatial, transport and ecological planning along the trans-European railway axis (TEN-T) no. 24 from Rotterdam to Genoa. Corridor 24 covers a number of the most important economic regions in Europe. The major European north-south transport axis across the Netherlands, Germany, Switzerland and Italy is linking the North Sea port of Rotterdam and the Mediterranean port of Genoa. Its catchment area comprises 70 million inhabitants and operates 50% (700 million tons/year) of the north-south rail freight. The opening of the Lötschberg Tunnel in 2007 and the Gotthard Tunnel (expected in 2017) and the parallel expansion of the feeders will further improve the importance of Corridor 24. Nevertheless, some major bottlenecks and a lack of trans-regional coordination still threaten the potential of the axis, limiting its economic and spatial development. CODE24 aims at a coordinated transnational strategy to support the improvement and the development of the corridor. The overall objective is to accelerate and jointly develop the transport capacity of the entire corridor by ensuring optimal economic benefits and spatial integration while reducing negative impacts on the environment at local and regional level. By focussing on regional aspects in the corridor area and joint development strategies, the project will strengthen the position of regional actors and stakeholders. It will provide planning tools and tailor made solutions to remove major bottlenecks and enable pro-active stakeholder participation. This encompasses both: the development of the railway system as well as a sustainable spatial development. CODE24 was approved under the Strategic Initiatives Framework of the INTERREG IVB NWE programme.

The questionnaire "location factors and bottlenecks from the point of view of the logistic sector" was an opportunity for logistic companies to show their perspective and to inform decision makers, what kind of problems in infrastructure, availability of logistic space, etc. they see and which influence their company the most. Furthermore the information about bottlenecks along the corridor Rotterdam - Genoa will be used to publish recommendations in regard to the construction of infrastructure and the location development.

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1　Survey methodology

Methodology and concept of the survey were developed by Claudia Eichhorn[1], Thomas Kaspar[2], Hansjörg Drewello and Ulrich Grubert[3]. The methodology has been discussed in expert workshops during work package 3 meetings on

- July, 11th 2011 in Kehl
- September, 22nd in Turin
- October, 28th in Kehl
- December, 13th in Zürich
- January, 13th 2012 in Kehl

During this phase the concept of the questionnaire has been refined several times by the experts of the project group and the project partners in WP3.

1.1　Survey concept

The main goal of the questionnaire "location factors and bottlenecks from the point of view of the logistic sector" is to identify bottlenecks and hindrances along the corridor. Which transport relations are affected by these bottlenecks? Which modes of transport are affected? How often do these bottlenecks occur?

The second part of the questionnaire is to compare regions along the corridor Rotterdam – Genoa by identifying important locational factors for logistic companies. The third part of the survey is a statistical analysis about the company's origin in the corridor, turnover and employees.

Last but not least the internet questionnaire was also an instrument to generate publicity/communication for advertising the project CODE24. Referring to the supporting partners like Chambers of Commerce and Logistic Associations over 6000 companies and institutions have been contacted by letter, e-mail, different newsletters and press articles in magazines or homepages.

1.1.1　Conceptual phase

The conceptual phase of the internet survey began in July 2011 during the WP3 meeting in Kehl. The project partners discussed the data which would be needed to identify bottlenecks and hindrances along the Corridor 24. The University of Applied Science Kehl, TransCare AG and Planung Transport Verkehr AG (PTV AG) agreed on improving the concept. The first hypothesis and design were being made and discussed during July/August 2011 in the project group. A draft version can be found as annexe 6.1 (editing time 30min). After

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[1] PTV AG, Karlsruhe
[2] TransCare AG
[3] Both University of Applied Science Kehl

discussion with representatives of the Union of European Chambers of Commerce and Industry as a supporter and distributor of the questionnaire towards the regional Chambers of Commerce the decision was made that the questionnaire should not be longer than 10mins editing time. The limitation to 10mins led to a new design and concept of the survey due to an expected increase in the quote of return. The concept changed from a mode of transport based bottleneck idea towards a transport relation oriented bottleneck questionnaire. Respondents mustn't answer all questions for all modes of transport. They could answer problems on their specific transport relations and then define the mode of transport they are using. The result is a decrease in time needed to answer the questionnaire and more geographical information where exactly the bottlenecks are located. A comparison of locational factors between the regions was added in this second version (see Annexe 2 only in German).

The project partners have discussed different internet based platforms to support the survey in five different languages. The platform https://www.soscisurvey.de/ seems to be most useable since it supports the parallel creation of internet surveys in different languages with a translation tool and an easy to use User Interface which supports html and php code to optimize the design (see figure below).
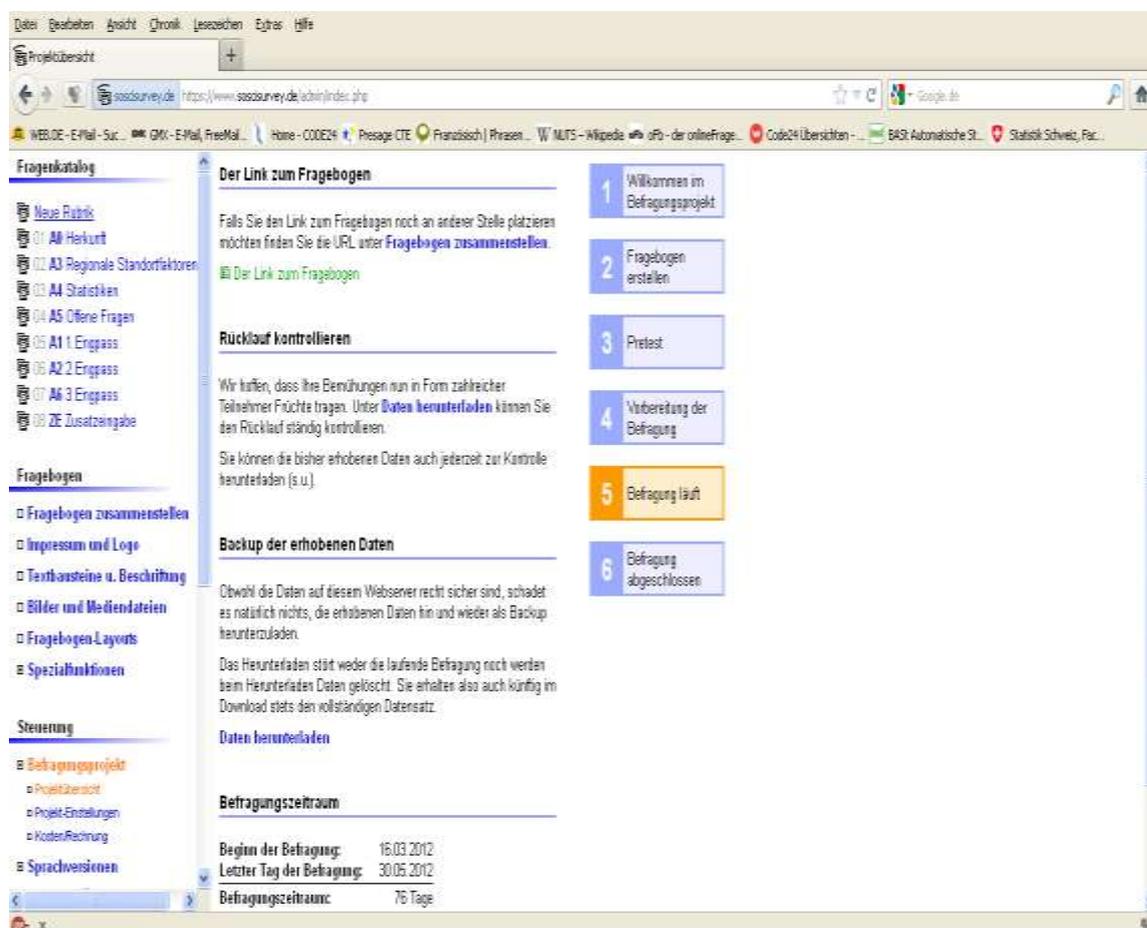
Fig. 1: www.soscisurvey.de

1.1.2 Translation

The translation of the questionnaire took place in January / February 2012 and has been done by following project partners in the stated language:

English:

- Port of Rotterdam, European & International Affairs
- University of Applied Science Kehl

French:

- University of Applied Science Kehl
- Port of Strasbourg

German:

- Planung Transport Verkehr AG
- TransCare AG
- University of Applied Science Kehl

Italian:

- SiTI (IstitutoSuperiore sui Sistemi per l'Innovazione)
- Uniontrasporti
- Genoa Port Authority

Dutch:

- Port of Rotterdam, European & International Affairs

The translation of each language has been adjusted by several local partners to guarantee the best possible result for the questionnaire. To make sure that the meaning of the questions was not changed due to the translation a constant exchange of information was needed between the project leader and the local partners. The verification of the translation was also one focus of the pre-test in January / February 2012 (s. 2.14 pre-test). For the translation process an Excel File with all questions and items in all five languages was used. This file has been sent to several partners to verify the translated items and questions. After the translation the implementation of the questions into the online platform started.

1.1.3   Implementation

After the conceptual phase and the translation process the questionnaire was implemented to the online survey platform www.soscisurvey.de. The advantages of www.soscisurvey.de are shown in this short overview:

- Support of Multilanguage surveys
- Translation tool integrated (not used)
- Free use for scientific surveys
- Supports over 15 different question types
- Stable servers
- Support of pre-tests
- Good support via Forums and Community
- Easy handling – no time wasted in programming
- Customizable survey interface via html code
- Collection of quote of return statistics, clicks, abruption, etc.
- Data can be downloaded as Excel, SPSS, GNU R and SQL files.

The implementation took place in January 2012. Directly after the implementation the correction was done by the project partners (s. translation).

Fig. 2: Translation tool – Item translation from German to English
(Source: www.soscisurvey.de)

During the implementation phase the questionnaire has been adjusted to the online platform. Some questions have been designed as "nested questions"[4]. The online platform itself does not support this kind of questions. These questions were splitted into single item questions and combined with one question for the respondent via the php code. For example: Where is this bottleneck located? Items: From to Destination, are two questions combined into one. This has been done via following php code: "question ('A110','combine=A111', 'spacing=20'); //Combines question A110,A111".

After having designed all the questions and implemented the items, translations, etc. the questions could be placed into the questionnaire via a drag & drop system or by php code.
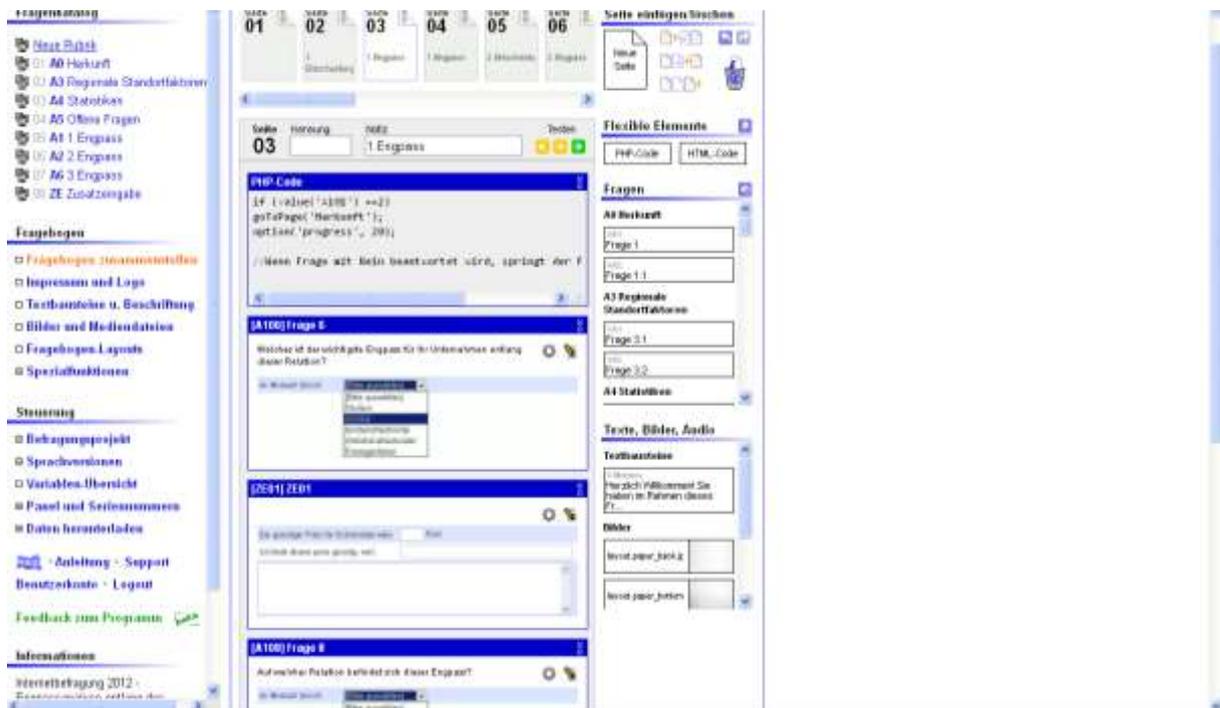
Fig. 3: Questionnaire drag& drop system with php code (Source: www.soscisurvey.de)

The pages of soscisurvey can be renamed, linked, skipped, etc. For example the question "Please tell us if you see any improvement opportunity or bottlenecks along the corridor Rotterdam – Genoa" leads to two different pages. While "yes" leads to the next page, in this case three, the answer "no" leads to page 11 and the respondent can fill in his origin because he can't or doesn't want to answer the questions about bottlenecks. Three of these optional decisions have been implemented into the questionnaire, making it possible for the respondent to vary the length of the questionnaire in his own.

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[4]Similar to nested sentence.

1.1.4   Pre-test

The pre-test of the internet survey started after the translation and implementation end of January / beginning of February 2012 and was being held in Germany, Italy and the Netherlands. The main focus of the pre-test was to test the questionnaire design and the understanding of each translation in the different languages. A short overview about the objectives of the pre-test: Content of the questionnaire / Quality and quantity of the questions / Verification of the items (possible answers) / Verification of the understanding of the questions – Interpretation of the question through the respondent / Verification of the translation – The meaning of the questions need to be the same in all languages / Verification of the length of the questionnaire.

During the pre-test the internet platform offers description fields for every single question. The respondents were chosen by our regional project partners who helped us carrying out this pre-test in the different countries.

Company	Country
Wincanton Intermodal GmbH & Co. KG	Germany
Spedition Merkel-Wetzel GmbH	Germany
Spedition Klumpp+Müller	Germany
SWS Speditions-GmbH	Germany
Hupac	Netherlands
ERS	Netherlands
SeaconLogistics	Netherlands
BroekmanLogistics	Netherlands
Port of Rotterdam	Netherlands
Port of Genova	Italy
TNT GLOBAL EXPRESS	Italy
SDA	Italy
SiTI - IstitutoSuperiore sui SistemiTerritoriali per l'Innovazione	Italy
Uniontrasporti	Italy

Table 1: Pre-test partners

The results of the pre-test have been discussed with the project partners and if possible implemented by the project leader team into the survey.

1.1.5   Survey

The internet survey started at March, 19th 2012 in Italy, Netherlands, Germany and Switzerland. The survey period has been planned to end on April, 30th but this date was postponed until May, 30th and enlarged to the French region of Alsace which became a new

partner in the project at that time. Following the supporting institutions (CCIs and Logistic associations) about 6000 companies have been contacted.

2   Statistical methodology

2.1   Frequency of answer

The frequency of answer method provides several informations about the respondents. The maximum and minimum answered questions can be defined by this method and other for example cumulative methods can be used. The frequency of answer methods will be used by nearly all questions to get a first statistical overview of the responses and to further decide whether to go into detail with other methods or not (f.e. frequency of answer methods provides only 2 answers for the postal code 77694 Kehl a further detailed information might then not be useful).

2.2   Cross-tabulation

The contingency table or so called cross-tabulation allows the presentation of 2 characteristics (items). The relation between the items is an "and" or "as well as" combination. With this method absolute and relative frequency of answers can be displayed (f.e: Cross-tabulation of question A001 + A106. In which country is your branch office and what's the most important bottleneck. The result will be a specific bottleneck listing from the perspective of each participating country).

2.3   Arithmetic mean and median

"In mathematics and statistics, the **arithmetic mean**, or simply the mean or average when the context is clear, is the central tendency of a collection of numbers taken as the sum of the numbers divided by the size of the collection. The collection is often the sample space of an experiment. The term "arithmetic mean" is preferred in mathematics and statistics because it helps distinguish it from other means such as the geometric and harmonic mean.

In addition to mathematics and statistics, the arithmetic mean is used frequently in fields such as economics, sociology and history, though it is used in almost every academic field to some extent. For example, per capita GDP gives an approximation of the arithmetic average income of a nation's population.

While the arithmetic mean is often used to report central tendencies, it is not a robust statistic, meaning that it is greatly influenced by outliers. Notably, for skewed distributions, the arithmetic mean may not accord with one's notion of "middle", and robust statistics such as the median may be a better description of central tendency.

"In statistics and probability theory, **median** is described as the numerical value separating the higher half of a sample, a population, or a probability distribution, from the lower half. The median of a finite list of numbers can be found by arranging all the observations from lowest value to highest value and picking the middle one. If there is an even number of observations, then there is no single middle value; the median is then usually defined to be the mean of the two middle values."[5]

2.4 GIS

A geographical information system is no statistical method itself but it is vital to display statistical information to a territorial reference. For the purposes of this project ArcGIS 10 from ESRI will be used. Main objective is to display the regional disparities into the Corridor Info System which can be found at http://code24.ethz.ch/. The combination of statistics and the presentation into a GIS will result in an additional value for the project, resulting in maps for specific regions where for example bottlenecks occur more often or were locational factors are rather bad compared to other regions along the Corridor Rotterdam – Genoa.

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[5] Weisstein, Eric W., "Statistical Median" from MathWorld.
http://www.stat.psu.edu/old_resources/ClassNotes/ljs_07/sld008.htm Simon, Laura J.; "Descriptive statistics", Statistical Education Resource Kit, Pennsylvania State Department of Statistics

3 Analysis

In the following chapter the results of the internet survey will be analysed and presented via tables, maps and charts.

3.1 Statistics of respondent companies

The first four questions were introduced to the survey to be able to categorize the companies by statistical factors like origin of the company, number of employees and annual turnover. If needed an analysis by size categories of the companies could be introduced as well.

3.1.1 Location

187 persons have participated in the internet survey. The number of locations of branch offices in the different countries is Germany 107, Switzerland 28, Netherlands and Italy both 20, France 8 and Belgium 4. It is important to notice that the questionnaire has not been carried out in Belgium. The high amount of German respondents is in direct link to the amount of companies contacted. The quote of return in Germany is about the same as in the other countries as well.

Where is your branche office located? (n=187)

Belgium	Germany	France	Italy	Netherlands	Switzerland	Total
4	107	8	20	20	28	187
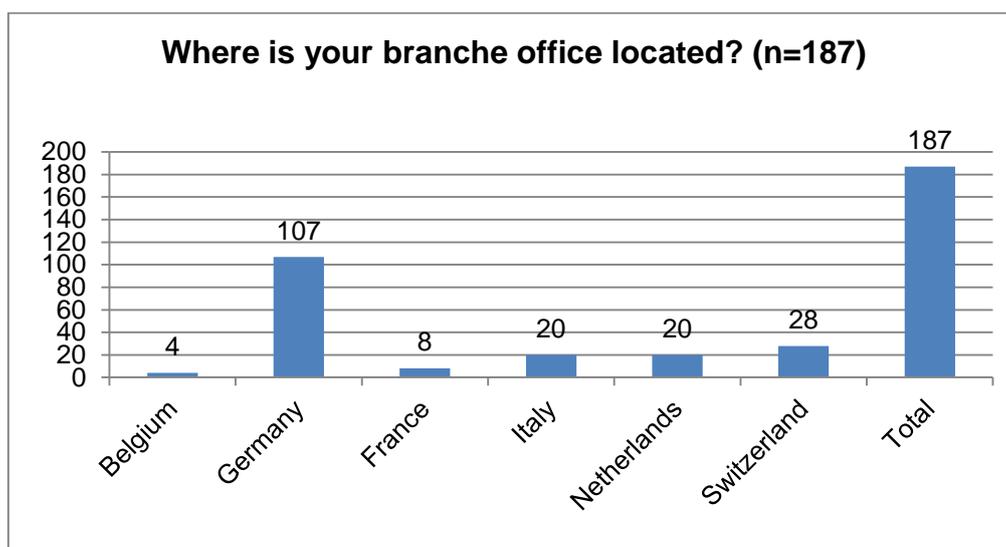
Table 2: Location of branch office

As shown in the map below most of the participants come from several agglomeration areas in the specific countries. For the Netherlands the urban area is Rotterdam, for Germany it is Aachen, Duisburg-Essen, Cologne, Frankfurt, Mannheim and Karlsruhe-Freiburg. In Switzerland the only noticeable urban area with agglomerated respondents is Basel and for Italy it is Torino. Analysing the assignment of the people along the Corridor 24 respondents come from all along the corridor.

Map 1: Origin of the survey participants (Source: ArcGIS – Own survey)

3.1.2   Number of employees

In Germany 32 of the respondents worked for companies with 51 to 250 employees and 31 for companies with more than 250 employees. This result is different to all other countries where most of the respondents came from smaller companies with 1 to 10 or 11 to 50 employees. In total there were 47 companies with 1 to 10 employees, 48 with 11 to 50 employees, 42 with 51 to 250 employees and 38 companies with over 250 employees who answered this question.
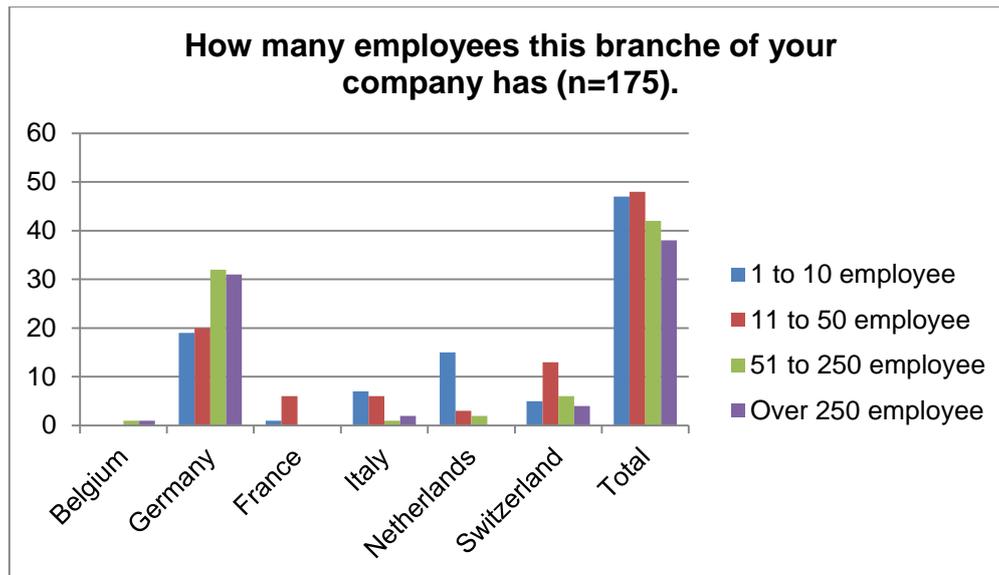
Table 3: Amount of employees

3.1.3   Turnover 2010

The size of respondent companies is illustrated by the number of employees and the annual turnover of the company. The definition of small and medium-sized enterprises (SMEs) has been recommended by the European Commission in 2003.[6] 47 companies are in this sense micro companies with fewer than 10 employees and a turnover lower than 2 million € per year. 51 companies are small ones with 50 or less employees and a turnover of fewer than 10 million €. As medium enterprises we can define 36 with a turnover of under 50 million € and a total amount of employee between 51 and 250. 33 enterprises with a turnover of over 50 million € and over 250 employee can't be classified as small or medium-sized enterprises. The total amount of respondents of this question was 167.

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[6]European Commission (2003-05-06). "Recommendation 2003/361/EC: SME Definition". Retrieved 2012-09-28

Please tell us the annual turnover of your branch in 2010 (n=167).
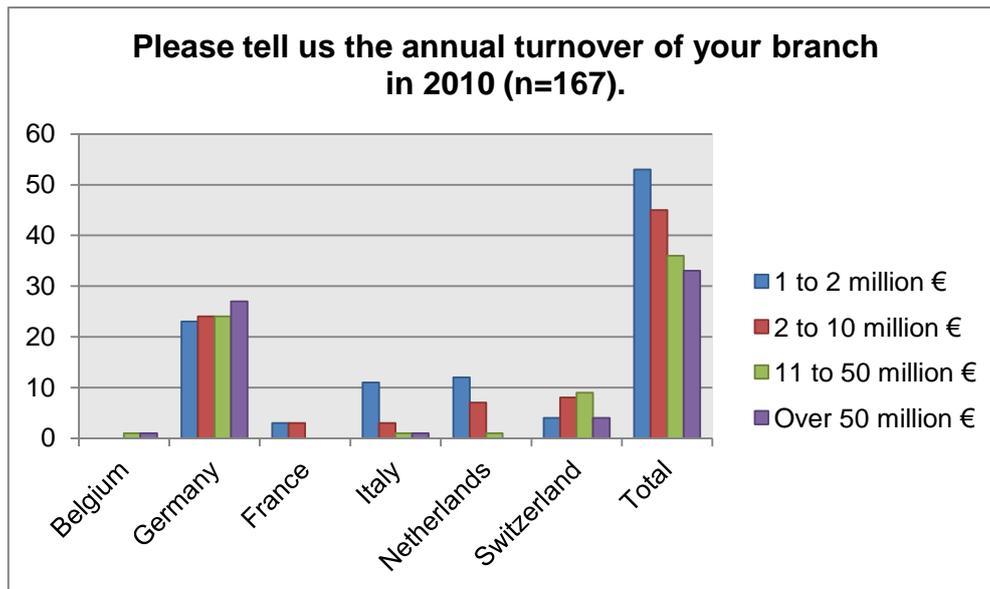
Table 4: Annual turnover 2010

3.1.4   Categories of activity

The companies could be classified into eight different classes, referring to the NACE Code list. Since the logistics sector is a very dynamic sector it's not unusual that one company is offering different services resulting in more than one category. Totally 268 classes were chosen from 165 companies. Most of the companies are working as transport service provider and forwarding companies. The forwarding company is accepting goods for international shipment and arranges the transport. The company itself usually does not have a fleet of trucks, trains, ships or aircraft. Forwarders contract with a carrier to move the goods. The transport service provider on the other hand actually owns a fleet of vehicles and is moving the good from A to B. He is also offering different other services like packaging and warehousing for his customers.

With 47 answers the option miscellaneous was chosen quite often. Companies accumulated under the miscellaneous option are from the goods producing industry that are also transporting goods, institutions who are working with the logistics sector and regional institutes.

28 respondents are coming from contract logistics, 18 are courier / express and parcel services, 15 are inland barge companies and 14 are terminal operators. 9 companies are railway undertakings. The differences between the chosen options in the participating countries can be seen in the table below.

**Classify your company...
(Multiple answers possible)**
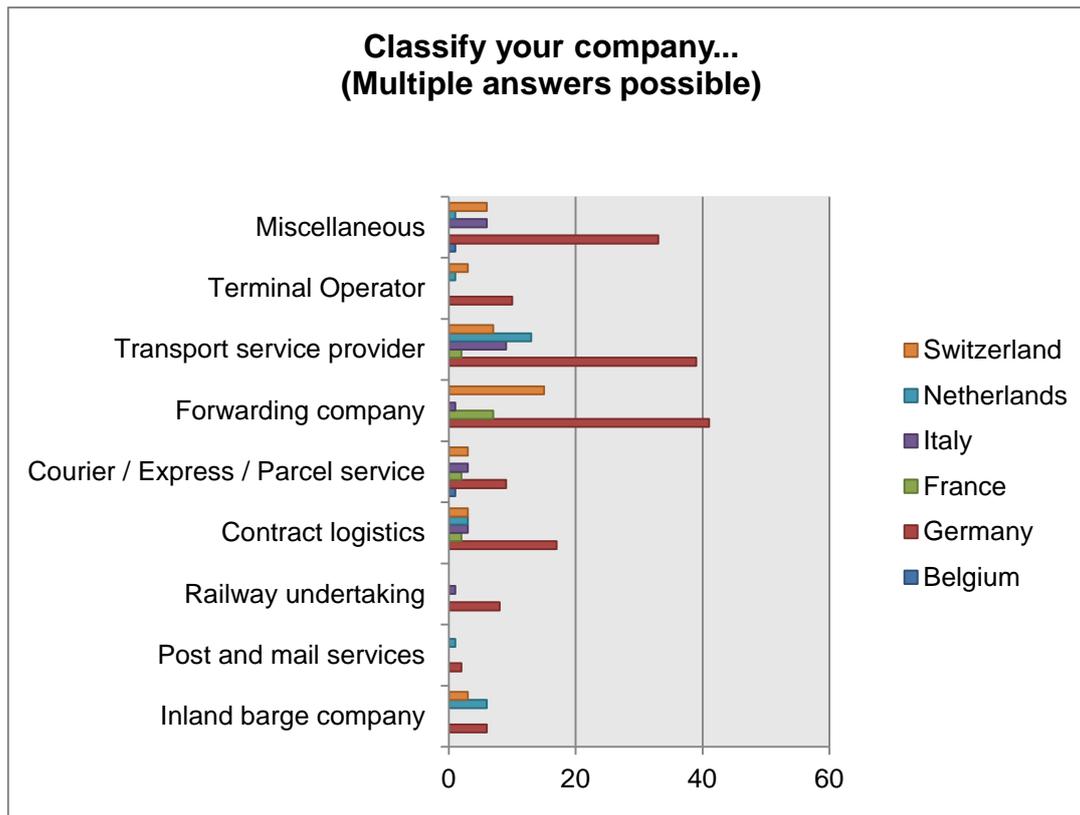
Table 5: Classify your company

3.2 Locational factors

3.2.1 Quality of location factors at the location of the company

The participants were asked how they would estimate 17 different location factors for their logistic location. The following location factors have been sorted by their total value for the respondents. The lower the number, the better the rating is. The scale was: (very good, good, bad, very bad, don't know), so the best achievable result would be 1,00 and the worst 4,00. Since France and Belgium got a low response rate, the following analysis will only focus on Germany, Netherland, Italy and Switzerland. The location factors have been rated as followed:

Territorial proximity to your customers (1,75), Cooperation with other logistic companies (2,09), Infrastructure - inland water navigation (2,06), The regions attractiveness for qualified labour (2,18), Infrastructure - connections terminals towards ship (2,26), Cooperation with public authorities (2,27), Information about logistic offerings and transport services, Quality of specialised personnel, Infrastructure - road network (2,33), Quantity of specialized personnel (2,45), Availability of logistic space, Labour costs(2,73), Local tax burden, Price level for

energy and water, Price level of industrial real estate for office-, storage-, and logistic estate (2,86).

Looking at the results it is interesting to see that the infrastructure is not the top rated factor. The companies seem to be satisfied with the top five factors which are mainly about the proximity towards the customers, cooperation with other logistic companies and public authorities, the regions attractiveness and last but not least the infrastructure in inland water navigation and the terminals towards it. Single results may differ from the total f.e. the regions attractiveness for qualified labour in Italy (2,71) is rated a lot worse than in the rest of the participating countries (2,05, without Italy)

The location factors which are rated the worse are availability of logistic space (2,71), Labour costs (2,73), Local tax burden (2,76), Price level for energy and water (2,82), Price level of industrial real estate for office-, storage-, and logistic estate (2,86). This result is not very surprising since these factors influence the costs of transport directly and enterprises always prefer paying lower taxes and prices to increase their profit.
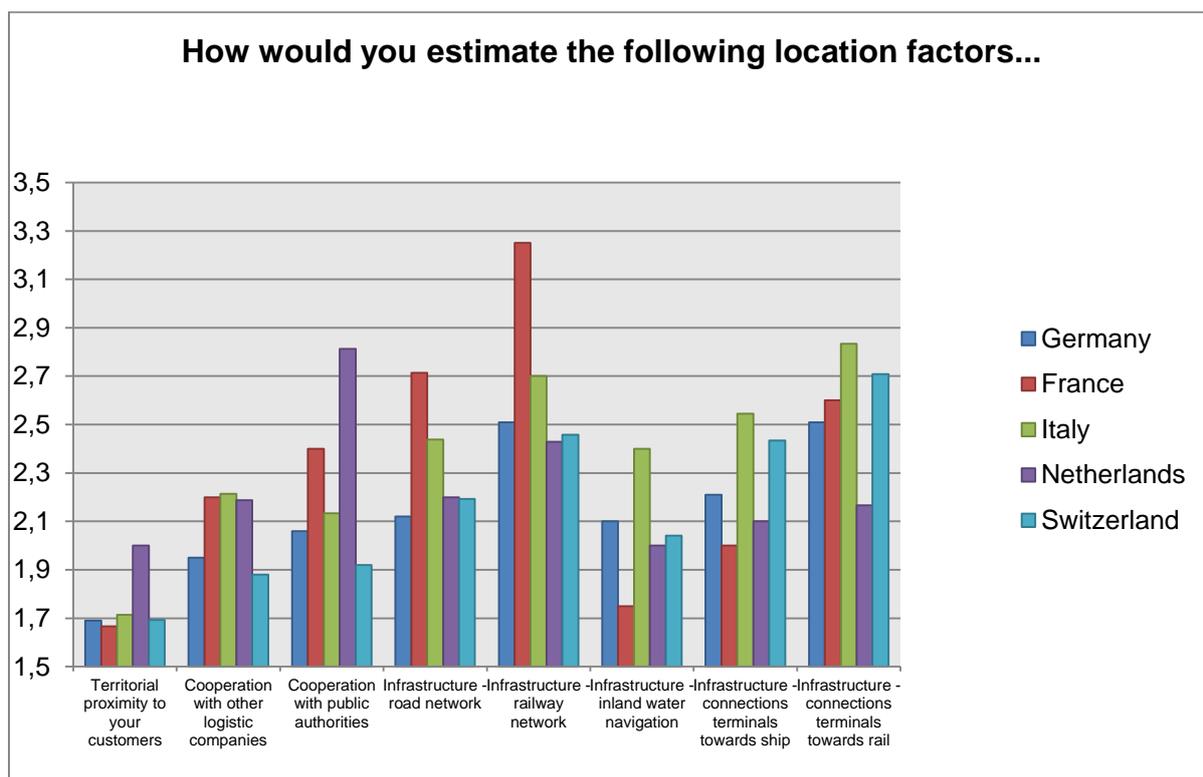
Table 6: Estimation of location factors - Part I

The top three rated factors by Country are:

Germany:

1. Territorial proximity to your customers (1,69)
2. Cooperation with other logistic companies (1,95)
3. The regions attractiveness for qualified labour (1,97)

Netherland:

1. Territorial proximity to your customers (2,00)
2. Infrastructure - inland water navigation (2,00)
3. Quality of specialised personnel (2,07)

Italy:

1. Territorial proximity to your customers (1,71)
2. Cooperation with public authorities (2,13)
3. Cooperation with other logistic companies (2,21)

Switzerland:

1. The regions attractiveness for qualified labour (1,62)
2. Territorial proximity to your customers (1,69)
3. Information about logistic offerings and transport services (1,84)

The regional results are good indicator for the quality of a region and the reasons why companies prefer operating out of that country. Territorial proximity to customers is always mentioned as the main reason. But the factors following the customer proximity show the real quality of the specific country out of the perspective of the logistics company. In the Netherlands infrastructure of inland water navigation is an advantage for companies whereas existence of qualified labour is advantageous for companies in Germany and Switzerland.

How would you estimate the following location factors...

Legend: Germany, France, Italy, Netherlands, Switzerland
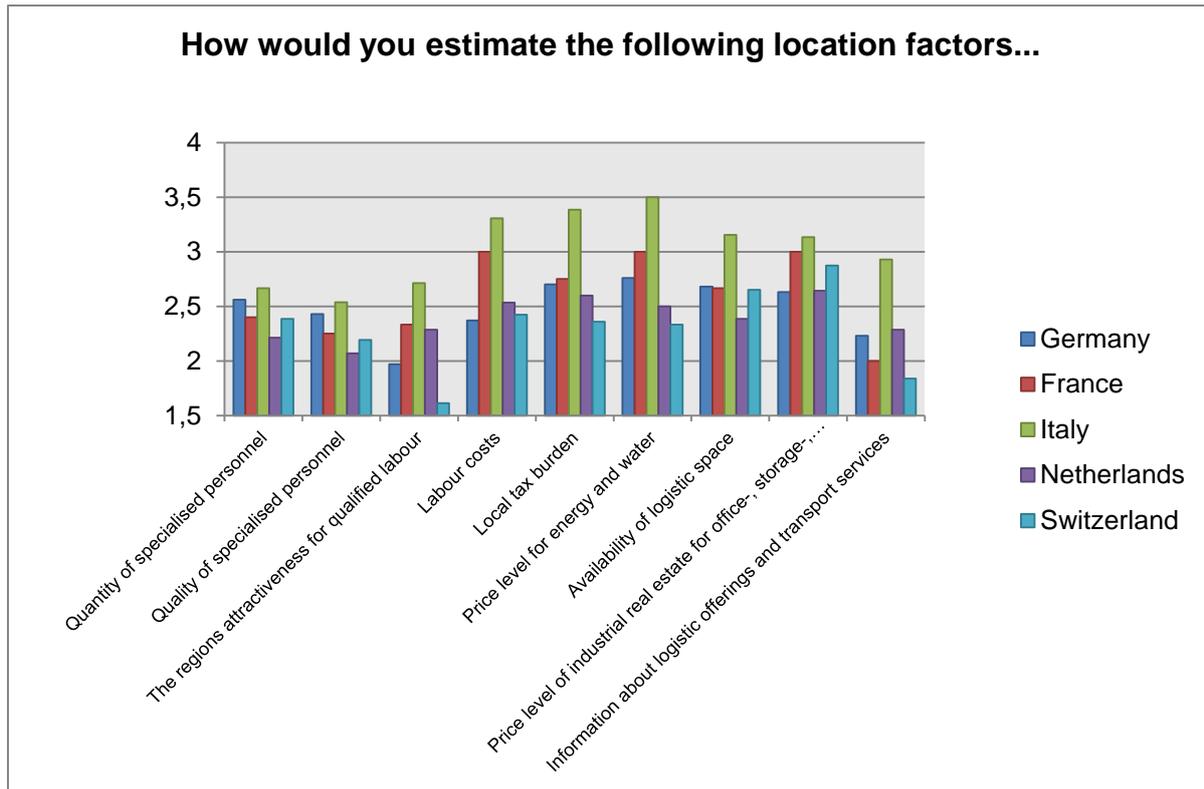
Table 7: Estimation of location factors - Part II

3.2.2   Importance of location factors to companies activites

After rating the location factors at their location the participants were asked to rate the factors by importance for their enterprise. The main reason of this question is to see where exactly is potential to help the companies in there need for infrastructure or other location factors. The combination of question five and six will bring interesting results as of which location factor is rated positive or negative and which of them is important for the companies of the logistics sector.

The scale was: (Very important, important, less important, unimportant, don't know) so the best achievable result would be 1,00 and the worst 4,00. Since France and Belgium got a low response rate, the following analysis will only focus on Germany, Netherland, Italy and Switzerland. The location factors have been rated as followed:

Location factor	Rated
Infrastructure - road network	1,42
Labour costs	1,58
Local tax burden	1,67
Territorial proximity to your customers	1,73
Quality of specialised personnel	1,78
The regions attractiveness for qualified labour	1,88
Quantity of specialised personnel	1,89
Information about logistic offerings and transport services	1,92
Price level for energy and water	1,93
Cooperation with other logistic companies	1,97
Availability of logistic space	1,97
Price level of industrial real estate for office-, storage-, and logistic estate	1,98
Cooperation with public authorities	1,99
Infrastructure - connections terminals towards rail	2,12
Infrastructure - connections terminals towards ship	2,17
Infrastructure - railway network	2,19
Infrastructure - inland water navigation	2,29

Table 8: Average location factors

In general the rating of importance is a bit higher than the estimation of location factors. This reflects that none of these factors is unimportant to the companies. The by far most important location factor for the companies is Infrastructure - road.

How IMPORTANT are these location factors for your logistic company?
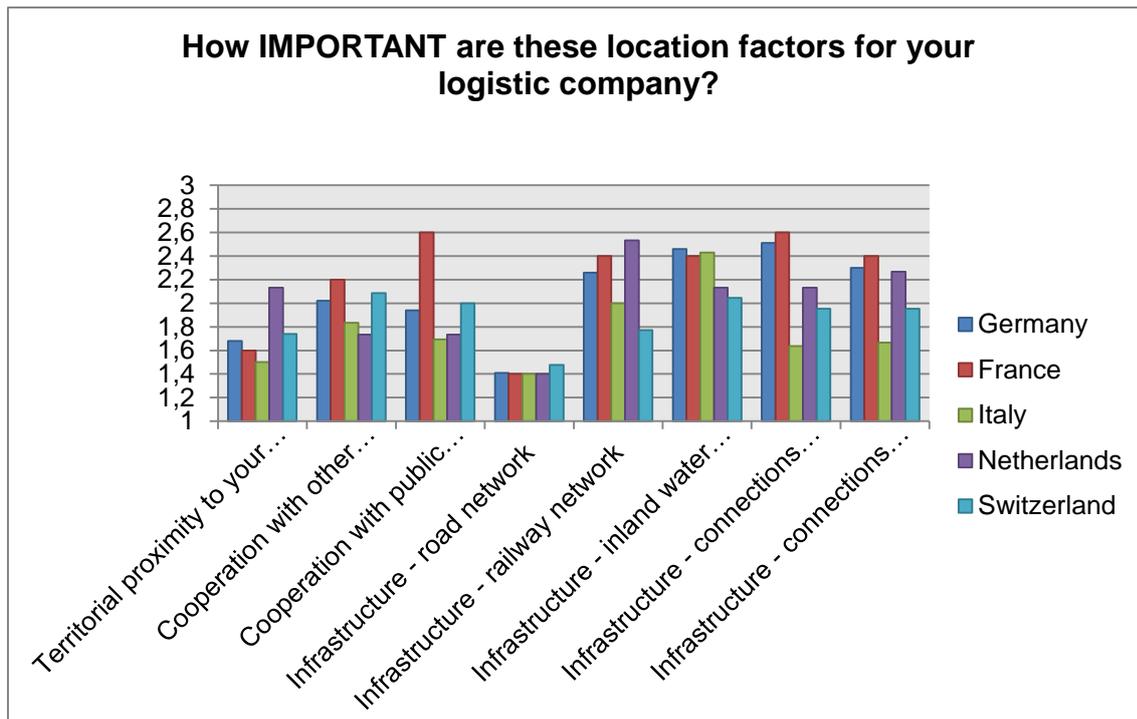
Table 9: Importance of location factors for the company - Part I

Most important factors by Country:

Germany:

1. Infrastructure - road network (1,41)
2. Quality of specialised personnel (1,56)
3. Territorial proximity to your customers (1,68)

Netherland:

1. Infrastructure - road network (1,40)
2. Quality of specialised personnel (1,53)
3. Local tax burden (1,53)

Italy:

1. Infrastructure - road network (1,40)
2. Territorial proximity to your customers (1,50)
3. Local tax burden (1,62)
4. Price level for energy and water (1,62)

Switzerland:

1. Quality of specialised personnel (1,48)
2. Infrastructure - road network (1,48)
3. The regions attractiveness for qualified labour (1,65)

How IMPORTANT are these location factors for your logistic company?
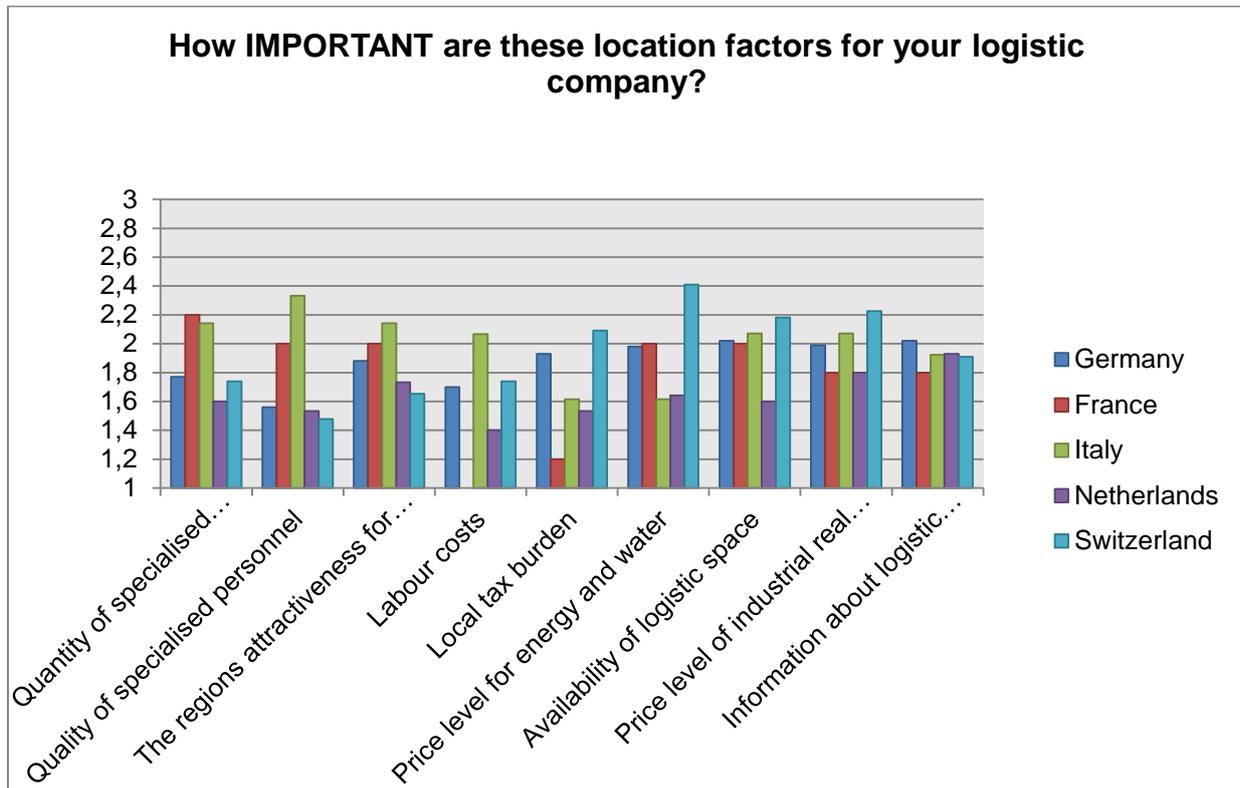
Table 10: Importance of location factors for the company - Part II

Looking at the most important location factors it is obvious that two of the factors are very important because they were top rated by most of the participating companies:

1. Quality of specialised personnel
2. Infrastructure - road network

Only in Italy the quality of specialised personnel seems not to be as important as in the other countries. With a rating of 2,33 it is in fact one of the most unimportant location factors in Italy. The 3rd factor varies, regarding the factors of every country.

3.2.3   Difference between quality and importance of these factors
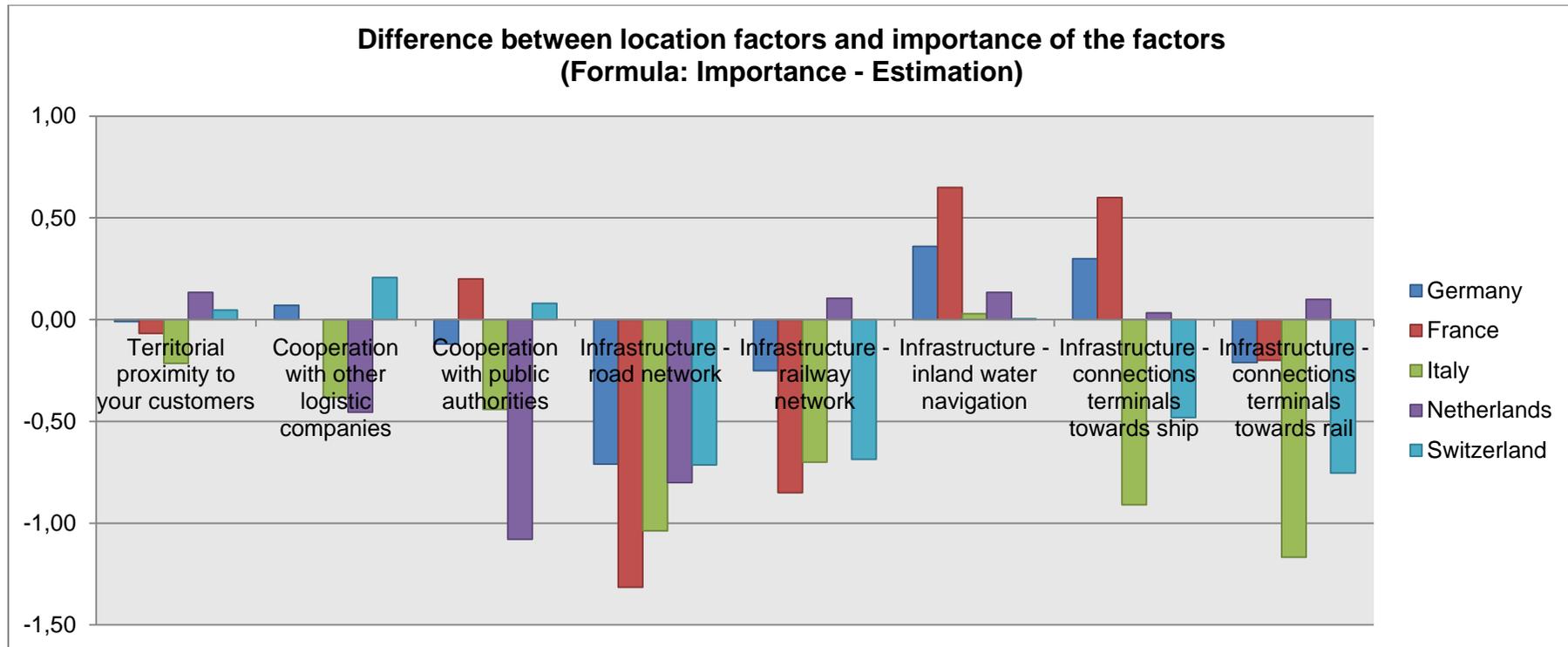
Table 11: Difference between quality and importance of these factors - Part I

The following two tables show the difference between location factors and importance of the factors. The result should give an overview of the location factors rated by the companies and their estimation whether they are in a good condition or if there is a need for intervention. Since the questions "location factors" and "importance of location factors" could both be rated with very good/important 1,00 and the worst/unimportant 4,00, the balance in this case would be a zero. If the result is negative, the current condition is not as good as it should be, compared to the importance

of the location factor. If the result is positive, the condition of the location factor is better than its importance to the companies. When looking at the tables, it is obvious that from the point of view of logistic companies only a few location factors are in a good or only slightly negative condition compared to their importance. In particular: Infrastructure - inland water navigation, Territorial proximity to your customers, Cooperation with other logistic companies, the regions attractiveness for qualified labour and (except Italy) the Information about logistic offerings and transport services.
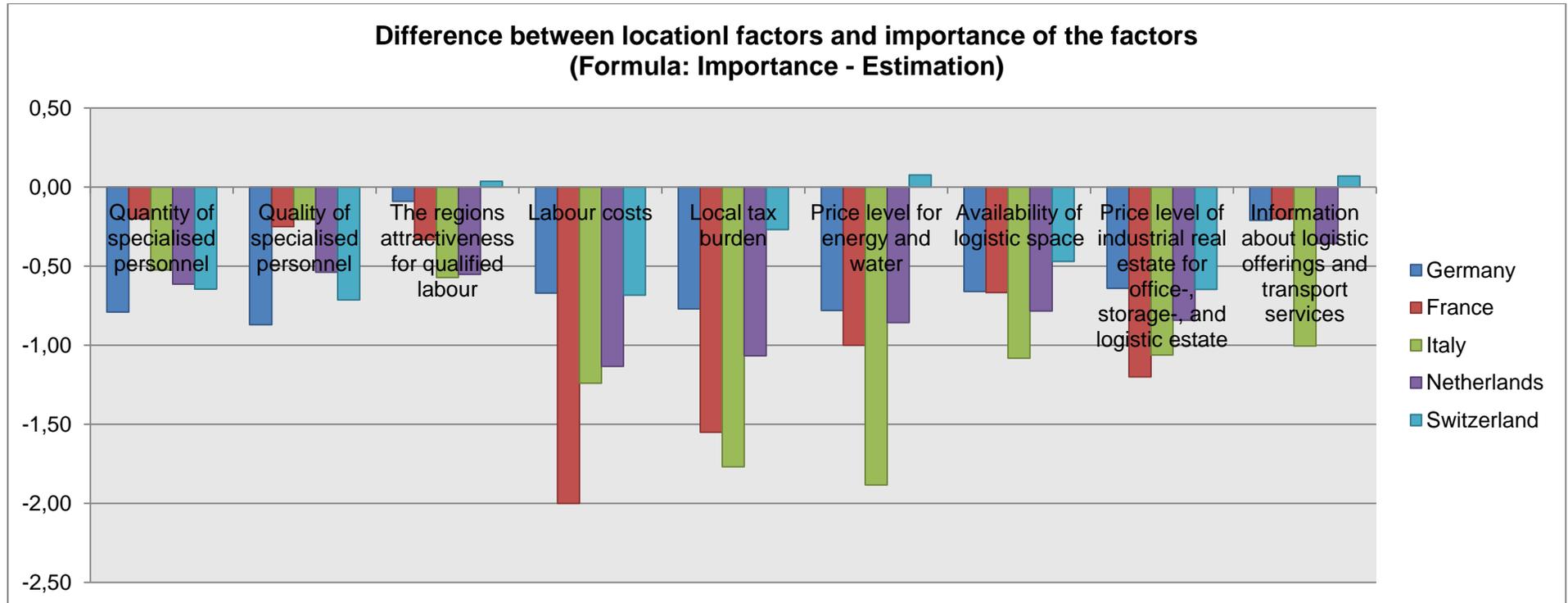
Table 12: Difference between quality and importance of these factors - Part II

As a result of this survey the following location factors are rated as insufficient by the companies (average between all countries): Local tax burden (-0,82), Labour costs (-0,79), Infrastructure - road network (-0,76), Price level for energy and water (-0,74), Price level of industrial real estate for office-, storage-, and logistic estate (-0,72), Quality of specialised personnel (-0,70). Comparing the results of the countries with each other and adding them to a total, the Switzerland (-5,55) is the country with the lowest deficit between estimation and importance of the location factor: Germany (-6,05), France (-0,38), Netherlands, (-8,58) and Italy (-14,17).

4   Bottlenecks along the transport Corridor

In the following part of the internet survey the participants could identify three different bottlenecks along the corridor. Furthermore the participants could indicate the location of these bottlenecks. Germany (71) is the Country with the by far most mentioned bottlenecks along the corridor followed by the Switzerland (37), Netherlands (13) and Italy (12). Since France and also Belgium got a low rate of participants and respondents this analysis will not respond to their answers and focus on the other countries.
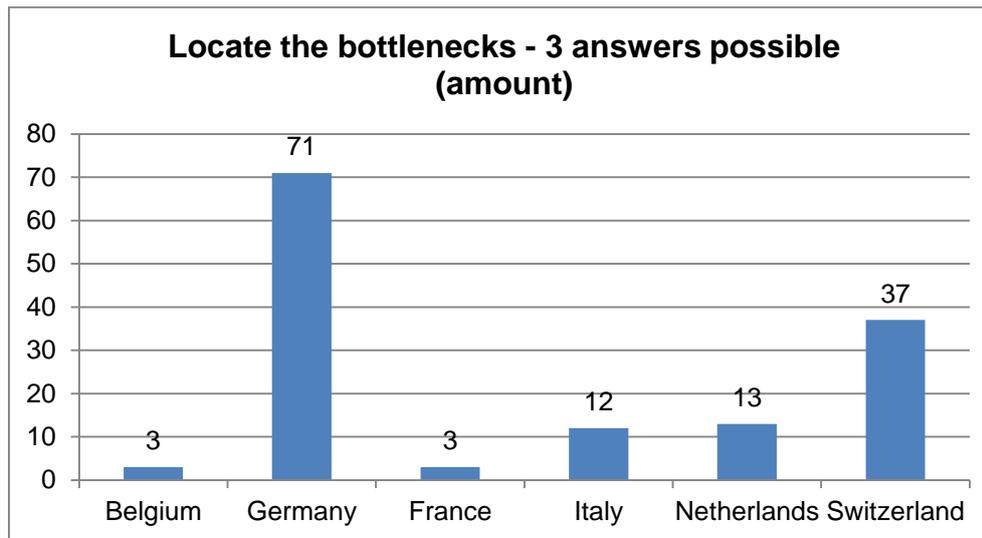
Table 13: Location of bottlenecks by country

An interesting cross-table is the origin of the respondent and location of the bottleneck by country. Of course most of the respondents identify bottlenecks in their own country but some of them also specify cross-border bottlenecks or locations in other countries. Companies from Germany are locating the 2nd most bottlenecks in Switzerland, while only 3 German respondents see options to improve the transport in Italy.

		ORIGIN OF RESPONDANT				
		Germany	Italy	Netherlands	Switzerland	Total
LOCATION OF BOTTLENECK	Germany	61	-	1	9	71
	Italy	2	6	1	3	12
	Netherlands	-	-	9	4	13
	Switzerland	10	5	-	22	37
	Total	73	11	11	38	

Table 14: Cross-table Origin of respondent and location of bottleneck

The Italian respondents locate hindrances in Italy and in Switzerland, while the Dutch respondents mainly see hindrances in their own country and only one problem in Germany and Italy. The Swiss respondents are criticising the most, compared to the number of respondents in total. First of all they would improve a lot in Switzerland, followed by Germany, Italy and the Netherlands.
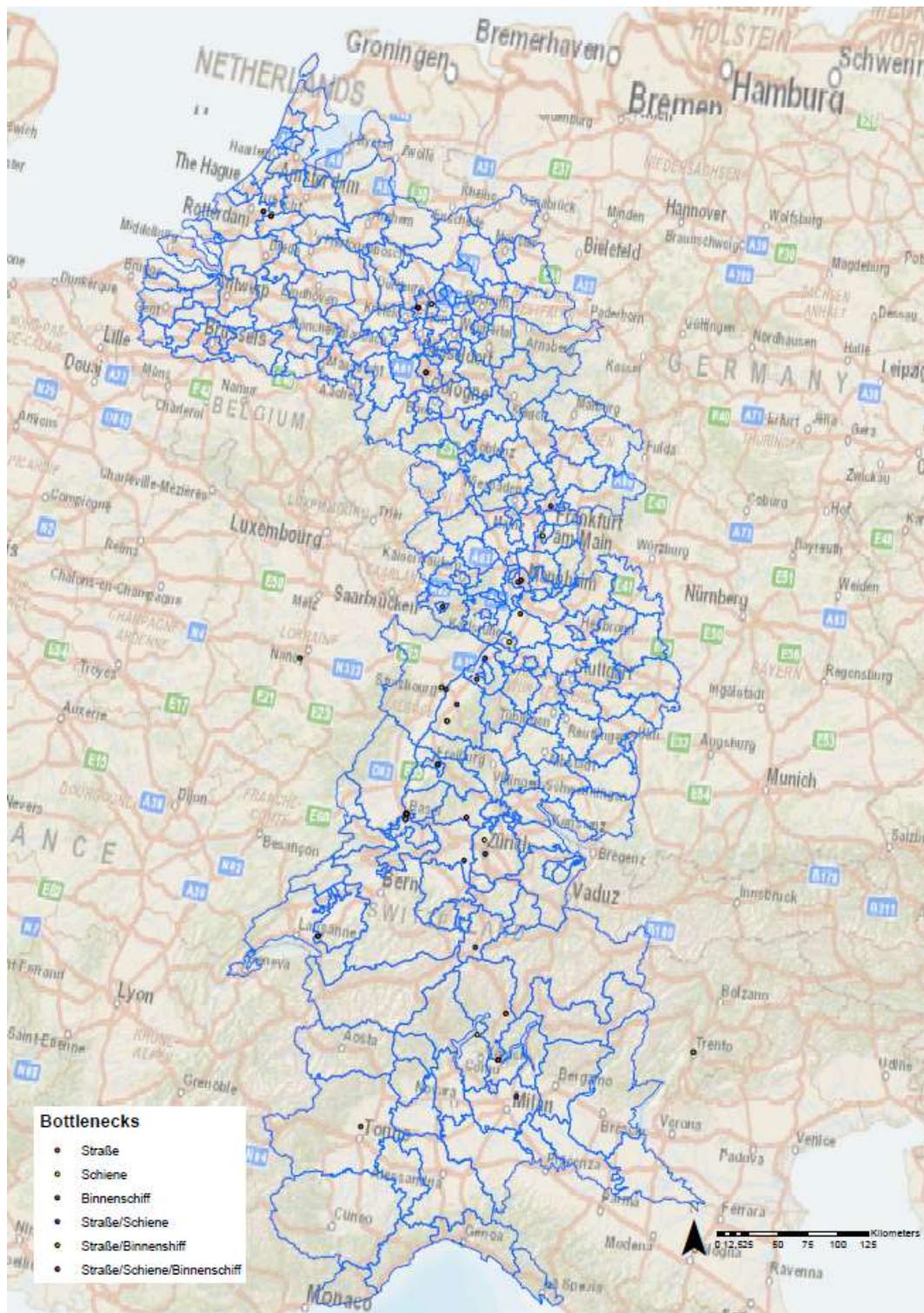
Map 2: Bottlenecks along the Corridor

The decreasing number of participants in the end of the survey, makes the comparison of the presented numbers a bit difficult. The most important and interesting information is the table about Bottlenecks by Postal Code and Mode of Transport for each country. In the following chapter countries will analysed separately to get a better overview of the most mentioned

bottlenecks. Since there is a huge number of bottlenecks in the category "miscellaneous", which are either very specific or held very general they will are listed here:

Bottleneck	Country
A8 & A6	Germany
Development of Mosel Watergates (very slow)	Germany
Basel - Karlsruhe	Germany/Switzerland
A15	Netherlands
Difficulty to bring together ALL the partners involved in the supply chain in order to point straight to the objective and ensure the achievement of a good outcome	Miscellaneous
Discrimination in imposition of fines and unworkable situations in relation to driving and rest times, fear that drivers have and steeply increasing costs for transport Entrepeneurs, who want to evade high fines, etc.	Miscellaneous
The lack of a Rhine-Rhone shipping connection or Saone-Rhone shipping connnection.	France/ Germany
Traders that pilfer money	Miscellaneous
Algera Bridge (bridge close to Rotterdam)	Netherlands
Client works directly with transporter	Miscellaneous
Lack of cross-border infrastructure (Iron Rhine: rail from Antwerp to Germany)	Belgium / Germany
Guarded parking places	Miscellaneous
Emmerich - Left and right side of the Rhine	Germany
3rd and 4th track between Offenburg and Basel	Germany/Switzerland
Lack of transport capacity in heavy duty vehicles	Miscellaneous
Approval procedure between federal states in heavy duty transport §70	Miscellaneous
Rail from Emmerich to Oberhausen	Germany
Switzerland in General	Switzerland
Transport- Terminal and Rail capacity, Stoppages and Duopoles	Miscellaneous
Tunnel height is not everywhere 4m	Miscellaneous
Unpunctuality in railway-system	Italy
Reglementation of the engine driver at cross-border tracks	Italy
Tailback at the Switzerland border	Switzerland

Table 15: Miscellaneous bottlenecks

4.1   Bottlenecks in Germany

With 107 participants Germany had by far the biggest number of companies and persons taking part in this internet survey. Most mentioned types of bottlenecks are High Traffic Volume (19), Occasional bottlenecks in the infrastructure (12) and lack of infrastructure capacity (7). The infrastructure is in heavy use and occasionally can't handle the amount of traffic. Lack of transport capacity is targeting the capacity on some relations or modes of transport. The problems in cross-border freight transport describe problems with documentations and authorities along the border.

Bottleneck	Category
High Traffic Volume (19)	physical
Occasional bottlenecks in the infrastructure (12)	physical
Lack of Infrastructure capacity (7)	physical
Lack of transport capacity (6)	organisational
Problems in cross-border freight transport (3)	organisational, physical

Table 16: Kind of bottleneck by Country - Germany

26 Bottlenecks have been located in Germany. Most of these bottlenecks are located in the area between Karlsruhe, Freiburg and the Suisse border, along the railway and the motorway 5.

Postal Code	City	Mode of Transport
46045	Oberhausen	Rail
47228	Duisburg	Road
47228	Duisburg	Road
47228	Duisburg	Road/Rail/Inland Water Navigation
50672	Köln	Road
50672	Köln	Road
50672	Köln	Rail
60598	Frankfurt am Main	Road/Rail/Inland Water Navigation
64295	Darmstadt	Rail
66955	Primasens	Road
67059	Ludwigshafen am Rhein	Road
68159	Mannheim	Road
68159	Mannheim	Rail
68159	Mannheim	Road/Rail
68753	Waghäusel	Road
76131	Karlsruhe	Rail
76437	Rastatt	Road/Rail
77654	Offenburg	Road/Rail
77694	Kehl	Road/Rail
77815	Bühl	Road
77933	Lahr / Schwarzwald	Rail
77933	Lahr / Schwarzwald	Rail
77933	Lahr / Schwarzwald	Rail
79098	Freiburg im Breisgau	Road
79098	Freiburg im Breisgau	Road/Rail
79098	Freiburg im Breisgau	Road/Rail
79761	Waldshut-Tiengen	Road

Table 17: Bottlenecks by Postal Code and Mode of Transport - Germany

4.2 Bottlenecks in Italy

20 companies from Italy took part in the survey. The Italian respondents identify most hindrances in cross-border freight transport and in the limited choice of mode of transport.

Bottleneck	Category
Problems in cross-border freight transports (4)	Organisational, physical
Limited choice of mode of transport (4)	physical
Lack of transport capacity (2)	organisational
High Traffic Volume (2)	physical
Strike/Stoppage (1)	organisational

Table 18: Kind of bottleneck by Country - Italy

In Italy seven Bottlenecks have been identified and located by the participants. Two bottlenecks are located in Trento and Genoa, one in Turin, Monza and Luino near the Suisse border. Since the Inland water navigation system in Italy isn't as huge as in the other countries, the Italian bottlenecks focus on Road, Rail and the switch from road/rail and vice versa.

Postal Code	City	Mode of Transport
10100	Turin	Road
16100	Trento	Rail
16100	Trento	Rail
16121	Genoa	Road
16121	Genoa	Road
20900	Monza	Road/Rail
21016	Luino	Rail

Table 19: Bottlenecks by Postal Code and Mode of Transport – Italy

4.3   Bottlenecks in Netherlands

20 participants from the Netherlands took part in the survey. Looking at the bottlenecks it seems as if Dutch companies are quite pleased with the current state of infrastructure and capacity in different modes of transport.

The most common bottlenecks are occasional bottlenecks in the infrastructure (3) and lack of infrastructure capacity (3) followed by information gaps in the logistics process (2), problems in cross-border freight transport (1) and the lack of terminal capacity (1).

Bottleneck	Category
Occasional bottlenecks in the infrastructure (3)	physical
Lack of Infrastructure capacity (3)	physical
Information gaps in the logistics process (2)	organisational
Problems in cross-border freight transports (1)	Organisational, legal
Lack of terminal capacity (1)	physical

Table 20: Kind of bottleneck by Country - Netherlands

Only three bottlenecks have been identified in the Netherlands. The bottlenecks occur in Rotterdam and only affect the road.

Postal Code	City	Mode of Transport
2925	Rotterdam	Road
2957	Rotterdam	Road
2925	Rotterdam	Road

Table 21: Bottlenecks by Postal Code and Mode of Transport - Netherlands

4.4 Bottlenecks in Switzerland

In Switzerland 28 companies joined the survey. A lot of them have identified and located bottlenecks along the transport corridor. Number one bottleneck in Switzerland is the high traffic volume followed by a limited choice of mode of transport and problems in shipment completion.

Bottleneck	Category
High traffic volume (8)	physical
Limited choice of mode of transport (4)	physical
Problems in shipment completion (4)	organisational
Occasional bottlenecks in the infrastructure (3)	physical
Lack of transport and terminal capacity (3)	Physical, organisational

Table 22: Kind of bottleneck by Country - Switzerland

The Suisse respondents were very active in identifying and locating bottlenecks in Switzerland. 18 bottlenecks have been located by Postal Code and Mode of Transport. Most of them are located in Basel. Basel is the main logistic hub in Switzerland. All modes of transport are represented: Road, Rail and Inland Water Navigation. Looking at the type of bottlenecks and mode of transport inland water navigation seems to be without major hindrances. However road and rail and Road/Rail terminals are affected by bottlenecks and hindrances.

12 of 18 bottlenecks occur in Basel. The rest is located from Zürich following the motorway 2 or E35 to Chiasso near the Italian border.

Postal Code	City	Mode of Transport
4000	Basel	Road
4000	Basel	Road
4000	Basel	Road
4000	Basel	Road
4000	Basel	Rail
4000	Basel	Rail
4000	Basel	Rail
4000	Basel	Road/Rail
4000	Basel	Road/Rail
4000	Basel	Road/Rail
4002	Basel	Rail
4010	Basel	Road/Rail
6487	Göschenen	Road/Rail
6500	Bellinzola	Road
6830	Chiasso	Road
6830	Chiasso	Road
8000	Zürich	Road/Rail
8172	Niederglatt	Rail

Table 23: Bottlenecks by Postal Code and Mode of Transport - Switzerland

5   Conclusion

5.1   Survey

187 participants have taken part in the Internet Survey 2012 along the Corridor Rotterdam to Genoa, coming from The Netherlands, Germany, Switzerland, Italy, Belgium and France. The quote of return is estimated by 3 per cent. The majority of these companies were SMEs. Most of the companies questioned are transport service providers, forwarding companies or companies from contract logistics.

5.2   Location factors

Location factors play an important role for location decisions of logistic companies. These factors define whether the company can focus on the market or if the business is positively or negatively affected by them. Overall Switzerland seems to be the country with the best location factors for companies of the logistics sector. The companies are seeing a huge potential in improving the following factors along the Corridor Rotterdam to Genoa:

Switzerland:

- Infrastructure - connections terminals towards rail
- Infrastructure - road network

Germany:

- Quality of specialised personnel
- Quantity of specialised personnel

Netherlands:

- Labour costs
- Cooperation with public authorities

Italy:

- Price level for energy and water
- Local tax burden

The factors to improve the competitive ability of the companies along the corridor Rotterdam to Genoa vary a lot. For the logistic companies in Switzerland infrastructure offers the biggest potential for improvement. Especially road network and terminals towards rail are desirable.

The demographical change seems to be a huge problem for companies of the logistic sector along the corridor. This is the reason why they see improvements in the quantity and quality of personnel.

In the Netherlands labour costs and cooperation with public authorities are offering the biggest improvement for the location factors. Comparing the labour costs of the Netherlands in general with the other countries of the European Union it's indeed the fact, that the labour costs per hour are the highest[7] in Netherlands from the participating EU countries.

In Italy companies felt hindered by the price level for energy and water and the local tax burden. Looking at the wage statistic of the European Union, the earnings in the business economy compared to the other participating countries are a lot lower[8], while the expenses for energy (electricity, gas and other fuels) are only a few lower than in the participating countries, but still over EU27 average.

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[7] *Data from April 2013. Most recent data: Further Eurostat information, Main tables and Database.* (07.06.2013)

[8] http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Comparative_price_levels_of_consumer_goods_and_services#Price_level_indices (07.06.2013)

Location Factor	Average	Germany	Italy	Nether-lands	Switzer-land
Infrastructure - inland water navigation	0,27	0,36	0,03	0,13	0,00
Infrastructure - connections terminals towards ship	0,05	0,30	-0,91	0,03	-0,48
Territorial proximity to your customers	-0,01	-0,01	-0,21	0,13	0,05
Cooperation with other logistic companies	-0,01	0,07	-0,38	-0,45	0,21
The regions attractiveness for qualified labour	-0,17	-0,09	-0,57	-0,55	0,04
Cooperation with public authorities	-0,21	-0,12	-0,44	-1,08	0,08
Information about logistic offerings and transport services	-0,23	-0,21	-1,01	-0,36	0,07
Infrastructure - railway network	-0,33	-0,25	-0,70	0,10	-0,69
Infrastructure - connections terminals towards rail	-0,35	-0,21	-1,17	0,10	-0,75
Availability of logistic space	-0,66	-0,66	-1,08	-0,78	-0,47
Quantity of specialised personnel	-0,69	-0,79	-0,52	-0,61	-0,65
Quality of specialised personnel	-0,70	-0,87	-0,21	-0,54	-0,71
Price level of industrial real estate for office-, storage-, and logistic estate	-0,72	-0,64	-1,06	-0,84	-0,65
Price level for energy and water	-0,74	-0,78	-1,88	-0,86	0,08
Infrastructure - road network	-0,76	-0,71	-1,04	-0,80	-0,71
Labour costs	-0,79	-0,67	-1,24	-1,13	-0,68
Local tax burden	-0,82	-0,77	-1,77	-1,07	-0,27

Dark Green = +0,5 to 0, Light Green= -0,01 to -0,50, Yellow= -0,51 to -1,0, Orange= -1,01 to -1,5, Red= -1,51 to -2,0

Table 24: Improvement of location factors

5.3 Bottlenecks Suggestions

Since there have been only few responses from Netherlands with localized bottlenecks there is only a general suggestion. The Road system towards the Port of Rotterdam should be analyzed to remove possible bottlenecks in Rotterdam on the way to the port and the capacity problem of the

- Increase in Capacity: Motorway A15: Rotterdam - Nijmegen
- Algerabridge (bridge close to Rotterdam)

In Germany there are more options to improve the current situation:

- Increase in capacity: Motorway A5: Karlsruhe - Basel
- Building of more cross-border infrastructure (Iron Rhine: rail from Antwerp to Germany)
- Building of the 3rd and 4th track between Offenburg and Basel

Switzerland:

- Simplified practices for the approval procedure between federal states in heavy duty transport
- Building of the 3rd and 4th track between Offenburg and Basel
- Increase in capacity: Motorway A5: Karlsruhe - Basel
- Decrease the Tailback at the Switzerland border by increasing the Infrastructure or increasing the efficiency

Italy:

- Decrease the unpunctuality in the Railway-System
- Regimentation of the engine driver at cross-border tracks in the European Union in cooperation with Switzerland

General:

- Simplified practices for the approval procedure in cross-border freight transports
- Regimentation of Night driving bans in the European Union in cooperation with the Switzerland
- Filling of Information gaps in the logistics process by using the Online Freight Exchange of the Code24 project.

6   Annexe

6.1   Draft Version July / August 2011

PART 1: REACHABILITY OF REGIONS

Question 1: Please illustrate how good or bad other regions are reachable from your location per Highway and Road Network. (Dye in a map)

Example:

Question 2: Please illustrate how good or bad other regions are reachable from your location per rail freight transport. (Dye in a map)

Example:

Question 3: Please illustrate how good or bad other regions are reachable from your location per <u>inland water navigation</u>. (Dye in a map)

Example:

Strasse							

sehr gut, d.h. ohne jegliche Behinderung erreichbar
gut erreichbar, aber manchmal treten Behinderungen auf
prinzipiell erreichbar, aber es muss immer mit empfindlichen Behinderungen gerechnet werden
schlecht erreichbar, vorhandene Behinderungen sind nicht akzeptabel, die Region(en) können nicht mehr wirtschaftlich bedient werden
Regionen sind nicht relevant
x | Heimatregion

PART 2: HINDRANCES IN TRANSPORT

2.1 Hindrances in road transport

Question 3: Please rate the following statements with numbers from 1 (Strongly agree) to 5 (Strongly disagree). Aspects with no importance to you should be rated with 0.

		Str. Agree Str. Disagree					
		1	2	3	4	5	0
3.0.1	Frequent traffic jams on the motorwaysand highways affect the reliability of our trucks in long-distance transport.						
3.0.2	The lack of alternative rotes is affecting the reliability our trucks in long-distance transport.						
3.0.3	Cause of a lack of police controls, we are undercut in price by foreign competitors who disobey the rules.						
3.0.4	The frequent truck controls of the police are making the region unattractive for logistic providers.						
3.0.5	The national borders are still a barrier for your transports						
3.0.6	Different 42mission guidelines (for example: low emission zones) are increasing the operational demand on the organisation.						
3.0.7	Do we need equal regulations for the logistic sector in Europe?						
3.0.8	Do you agree a level playing field would benefit your business?						

Question 4: About the supply chain! Where exactly are the hindrances? Transport, Infrastructure, Terminals, Traffic Jams, etc.

2.2 Hindrances in intermodal transport

Question 5: Please rate the following statements with numbers from 1 (Strongly agree) to 5 (Strongly disagree). Aspects with no importance to you should be rated with 0.

		Str. agree Str. disagree					
		1	2	3	4	5	0
4.0.1	The region hast connections to important international seaports.						
4.0.2	The accessibility of our region through rail freight transport is inadequate.						
4.0.3	The offers of the rail freight terminals are not flexible enough.						

2.3 Hindrances in access to terminals

Question 6: Please rate the following statements with numbers from 1 (Strongly agree) to 5 (Strongly disagree). Aspects with no importance to you should be rated with 0.

		Str. agree Str. disagree					
		1	2	3	4	5	0
5.0.1	The regional inland ports/sea ports/dry ports you use are overloaded.						
5.0.2	The terminals in your region are not offering enough capacity?						
5.0.3	The service of the regional terminals is good/bad?						
5.0.4	The ports/freight depots/terminals are difficult to attain from your Location..						
5.0.5	The access roads to ports/ freight depots/terminals are overloaded						
5.0.6	Terminals in other regions are not available as alternatives.						

| 5.0.7 | Access restrictions prevent free access to the terminals | | | | | | |

2.4 Hindrances in rail-bound transport

Question 6: Please rate the following statements with numbers from 1 (Strongly agree) to 5 (Strongly disagree). Aspects with no importance to you should be rated with 0.

		Str. agree Str. disagree					
		1	**2**	**3**	**4**	**5**	**0**
6.0.1	The national borders are still anobstacle for rail freight transport						
6.0.2	During Disturbances in railway traffic we are not informed well and on time						
6.0.3	Transport by train is not reliable						
6.0.4	Transport by train is too expensive						
6.0.5	Transport by train needs too much organizational planning						

2.4 Hindrances in inland water navigation

Question 6: Please rate the following statements with numbers from 1 (Strongly agree) to 5 (Strongly disagree). Aspects with no importance to you should be rated with 0.

		Str. agree Str. disagree					
		1	**2**	**3**	**4**	**5**	**0**
7.0.1	The national borders are still anobstacle for inland water navigation						
7.0.2	During Disturbances in inland water navigation we are not informed well and on time						
7.0.3	Inland water navigation is not reliable						
7.0.4	Inland water navigation is too expensive						
7.0.5	Transport by barge needs too much organizational planning						

2.5 Hindrances on different levels

Question 8: Which hindrances are influencing your logistic business the most on the legal level? (Please give examples – national, european level, national border)

_____

___

Question 9: Which hindrances are influencing your logistic business the most when cooperating with business partners? (Please give examples – clients, forwarder, supplier)

_____

___

Question 10: Which hindrances are influencing your logistic business the most on the infrastructural level? (Please give examples – expressway, rail, motorway junction)

_____

___

PART 3: IMPORTANCE OF LOCATIONAL FACTORS

Question 11: Please put the following locational factors in order of their importance for your business company or affiliated company. (1: most important factor, 2: the second most important factor, 3: et cetera.)

Are two locational factors of the same importance, you should use the same number.

		Str. Agree Str. Disagree					
		1	2	3	4	5	0
11.0.1	Costs for real estate and plain						
11.0.2	Costs of employee						
11.0.3	Availability of employee						
11.0.4	Distance to the market						
11.0.5	Taxes and fees						
11.0.6	Distance to customers						
11.0.7	Distance to suppliers						
11.0.8	Distance to companies of the same industrial sector						

11.0.9	Business development						
11.1.0	Subsidies						
11.1.1	Infrastructure						
11.1.2	Quality of housing						
11.1.3	Quality of spare time and cultural offers						
11.1.4	Quality of the environment						
11.1.5	Availability of localrecreation						
11.1.6	Quality ofgastronomicaloffers						
11.1.7	Crime rate						
11.1.8	Offering of basic, further and advanced courses or further training opportunities.						
11.1.9	Offering of socio-cultural facilities						
11.2.0							
11.2.1							

PART 4: STATISTICAL ANALYSIS OF THE COMPANIES

Questions 12:

12.0.1	How many employees does your company have?	
12.0.2	What was the turnover of your company in 2010?(in EUR)	
12.0.3	Please tell us country and postcode of your head office.	
12.0.4		

Question 13: How much of your total shipping volume is approximately transported per
(10% scale per box)

	Mode of transport	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
7.0.1	Air Cargo										
7.0.2	Truck										
7.0.3	Train										
7.0.4	Barge										
7.0.5	Seagoingvessels										

Question 14: Which mode of transport is your company using for the following goods?
(Please fill in % - Example 100% = your company is transporting all liquid goods per truck)

		Truck	**Train**	**Ship**	**Air Cargo**
10.0.1	Groupage Freight				
10.0.2	Bulk Cargo				
10.0.3	Less then Container Load				
10.0.4	Full Container Load				
10.0.5	Liquid goods				

Question 15: How often is your company checking the choice of the selected modes of transport?

		Please mark the appropriate box
11.0.1	At every conclusion of contract	
11.0.2	Routinelyonce per day	
11.0.3	Routinelyonce per week	
11.0.4	Routinelyonce per month	
11.0.5	Routinelyonce per year	
11.0.6	A routinely check is too expensive	

6.2 Draft Version autumn 2011

Themenkomplex: Einführung (Einfache Fragen)

In welchem Land befindet sich Ihre größte Niederlassung entlang der Achse Rotterdam – Genua?

- Niederlande
- Deutschland
- Italien
- Schweiz
- Frankreich
- Etc.

Wie lautet die PLZ der Stadt/Gemeinde/Region? (Vorauswahl nach Frage 1?)

_ _ _ _ _ _   Postleitzahl

Themenkomplex: Transport (Welche Verkehrsträger und wohin?)

Welche Transportträger werden in Ihrer Transportkette entlang des Corridor Rotterdam – Genua hauptsächlich verwendet?

- Schiff
- Schiene
- Straße
- Intermodal
  - Straße/Schiene
  - Straße/Schiff
  - Straße/Schiene/Schiff
  - Schiff/Schiene

Nennen Sie die, für Ihr Unternehmen, drei[9] wichtigsten[10] Routen auf der Achse Rotterdam – Genua.

1. Von _____ über[11] _____über _____ bis _____
2. Von _____ über _____über _____ bis _____
3. Von _____ über _____über _____ bis _____

Anmerkung: [Kombinierbar mit Kartensystem? Routenplaner?

Vorteil: Distanz und optimale Fahrtzeit wäre dann erfassbar

Angaben von „durchschnittlicher, realer Fahrtzeit" ohne Be- und Entladung

Themenkomplex: Hindernisse (Was genau sind diese Hindernisse?)

---

[9] Diskussionswürdig: drei oder fünf?
[10] Definition: Wichtigste, umsatzstärkste, häufig gefahrene Route?
[11] Terminal/Verladestation/intermodaler Verkehrsträgerwechsel

Wo sehen Sie Nutzungseinschränkungen/Probleme für die Verkehrsträger?

- Schiff
    - Services *(Pre-Test um Kategorien zu bilden)*
        - Fehlende Services
        - Zu unsicherer Service
        - Fahrtzeiten/Servicezeiten
        - Lieferzeiten
    - Infrastruktur
        - Fehlende Verlademöglichkeiten/Terminals
        - Anzahl an Verladestationen/Terminals zu gering
        - Entfernung zum Hafen zu groß
        - Öffnungszeiten der Terminals sind nicht optimal

- Schiene
    - Services
        - Fehlende Services
        - Zu unsicherer Service
        - Fahrtzeiten/Servicezeiten
        - Lieferzeiten
    - Infrastruktur
        - Fehlende Verlademöglichkeiten/Terminals
        - Anzahl an Verladestationen/Terminals zu gering
        - Entfernung zum Hafen zu groß
        - Öffnungszeiten der Terminals sind nicht optimal

- Straße
    - Infrastruktur
    - Services
        - Nachtfahrverbote behindern Auslieferung
        - Wochenendfahrverbot
        - Unzuverlässig
        - Unpünktlich

Welche Verbesserungen könnte man Ihrer Meinung nach auf Ihren Destinationen durchführen? (Verknüpfung Frage 4)

1. **Route 1 (von____über_____über_____bis_____)**
   - o Beseitigung von Infrastrukturengpässen   (Pre-Test für Kategorien)
   - o Anzahl der Services erhöhen
   - o Fahrtzeiten verkürzen
   - o Öffnungszeiten von Terminals verbessern
2. **Route 2 (von____über_____über_____bis_____)**
   - o Beseitigung von Infrastrukturengpässen   (Pre-Test für Kategorien)
   - o Anzahl der Services erhöhen
   - o Fahrtzeiten verkürzen
   - o Öffnungszeiten von Terminals verbessern
3. **Route 3 (von____über_____über_____bis_____)**
   - o Beseitigung von Infrastrukturengpässen   (Pre-Test für Kategorien)
   - o Anzahl der Services erhöhen
   - o Fahrtzeiten verkürzen
   - o Öffnungszeiten von Terminals verbessern

Themenkomplex: Standortfaktoren

1. **Wie <u>schätzen</u> Sie folgende Standortfaktoren in Ihrer „Region" aus Unternehmersicht ein?**

(Bewertung auf einer Skala, wobei 1=sehr gut, 2= gut, 3= schlecht, 4 sehr schlecht)

Name/Bewertung	1	2	3	4
Wirtschaftsbeziehungen				
Kundennähe				
Nähe zu Lieferanten				
Nähe zu Forschungs- und Technologiezentren bzw. Hochschulen				
Zusammenarbeit mit Behörden				
Infrastruktur				
Wegeinfrastruktur (Straßen, Bahnhöfe)				
Verfügbarkeit von Gewerbeflächen				
Fachkräfte und Arbeitsmarkt				
Qualität des Fachkräfteangebotes				
Attraktivität für Arbeitskräfte				
Produktionsfaktorkosten und Steuern				
Regionales Lohnniveau				
Preisniveau von Gewerbeflächen bzw. Büro-/Ladenmieten				
Kommunale Steuern				
Preisniveau für Energie und Wasser				
Verkehrsanbindung				
Binnenschifffahrt/Hafen				
Schiene/Güterbahnhof				
Straße/GVZ/Verladestationen				
Überregionale Verkehrsanbindung				

2. Wie <u>wichtig</u> sind diese Standortfaktoren für Ihr Unternehmen?

(Bewertung auf einer Skala, wobei 1=sehr wichtig, 2= wichtig, 3= unwichtig, 4 sehr unwichtig)

Name/Bewertung	1	2	3	4
Wirtschaftsbeziehungen				
Kundennähe				
Nähe zu Lieferanten				
Nähe zu Forschungs- und Technologiezentren bzw. Hochschulen				
Zusammenarbeit mit Behörden				
Infrastruktur				
Wegeinfrastruktur (Straßen, Bahnhöfe)				
Verfügbarkeit von Gewerbeflächen				
Fachkräfte und Arbeitsmarkt				
Qualität des Fachkräfteangebotes				
Attraktivität für Arbeitskräfte				
Produktionsfaktorkosten und Steuern				
Regionales Lohnniveau				
Preisniveau von Gewerbeflächen bzw. Büro-/Ladenmieten				
Kommunale Steuern				
Preisniveau für Energie und Wasser				
Verkehrsanbindung				
Binnenschifffahrt/Hafen				
Schiene/Güterbahnhof				
Straße/GVZ/Verladestationen				
Überregionale Verkehrsanbindung				

Themenkomplex: Statistik

1. **Anzahl der Mitarbeiter?**
   - Unter 10 Mitarbeiter (Kleinstunternehmen)
   - Unter 50 Mitarbeiter (Kleinunternehmen)
   - Unter 250 Mitarbeiter (Mittleres Unternehmen
   - Über 250 Mitarbeiter (Großunternehmen)

2. **Anzahl der Fahrzeuge?**
   - Schiffe_____
   - LKW   _____
   - Züge   _____

3. **Verteilung der transportierten Waren auf die Verkehrsträger in %**
   - Schiffe_____
   - LKW   _____
   - Züge   _____

4. **Stellung/Position des Befragten im Unternehmen?**
   _____

Themenkomplex: Sonstiges

1. **Offene Frage zu Hindernissen im Allgemeinen?**
2. **Anmerkungen?**

6.3 Survey 2012 and statistical concept

No.	Question	Var.
A101	"In the following part of the questionnaire you will have the chance to describe and locate bottlenecks and h..."	Selection 1 = Yes 2 = No -9 = Not answered
A106	"What is the most important bottleneck for your company in the hinterland transport along the corridor"	Dropdown Selection 1 = Limited choice of mode of transport 2 = Lack of terminal capacity 3 = Lack of availability of terminals 4 = Lack of of transport services 5 = Lack of transport capacity 6 = High traffic volume 7 = Information gaps in the logistics process 8 = Lack of accessibility of terminals (rail side) 9 = Lack of Reachability of terminals (street side) 10 = Night driving ban 11 = Opening hours and loading times of terminals 12 = Problems in shipment completion 13 = Problems in cross-border freight transports 14 = Occasional bottlenecks in the infrastructure 15 = Strike/Stoppage 16 = Accident black spots 17 = Water levels -9 = Not answered
ZE_01	If the above questions did not allow you to mention an important bottleneck for your companies' hinterland transport along the corridor, please insert the bottleneck here	Text Input
A108	"Where is this bottleneck located?" **From**	Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands

			6 = Luxembourg
			7 = Switzerland
			8 = Miscelleanous
			-9 = Not answered
A109	"Where is this bottleneck located?" **Destination**		Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands 6 = Luxembourg 7 = Switzerland 8 = Miscelleanous -9 = Not answered
A110	"Please name us the postal code of towns / locations between which the transport relation is located." **From**		Text Input
A111	"Please name us the postal code of towns / locations between which the transport relation is located." **Destination**		Text Input
A102	"Which mode of transport is affected by the bottleneck?"		Multiple Choice **A102_01**Frage 2/Road **A102_02**Frage 2/Rail **A102_03**Frage 2/Inland water navigation 1 = Not checked 2 = Checked
A104	"How often does this bottleneck affect your business?"		Dropdown Selection 1 = Permanently 2 = Once a day 4 = Several times a day 6 = 1 - 2 times per week 8 = 3 - 4 times per week 14 = 5 - 6 times per week 17 = 1 - 2 times per month 18 = 1 - 2 times per year 19 = 3 - 5 times per year -9 = Not answered
A112	"Can you locate the 1st bottleneck mentioned by you in just one country?"		Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands

		6 = Luxembourg
		7 = Switzerland
		8 = Miscelleanous
		-9 = Not answered
A103	"Can you locate this bottleneck with a postal code or city?"	Text Input
A201	"Do you see any further bottlenecks along the corridor Rotterdam - Genoa that hinder you?"	Selection 1 = Yes 2 = No -9 = Not answered
A206	"Please tell us of what kind of bottleneck this is "	Dropdown Selection 1 = Limited choice of mode of transport 2 = Lack of terminal capacity 3 = Lack of availability of terminals 4 = Lack of of transport services 5 = Lack of transport capacity 6 = High traffic volume 7 = Information gaps in the logistics process 8 = Lack of accessibility of terminals (rail side) 9 = Lack of Reachability of terminals (street side) 10 = Night driving ban 11 = Opening hours and loading times of terminals 12 = Problems in shipment completion 13 = Problems in cross-border freight transports 14 = Occasional bottlenecks in the infrastructure 15 = Strike/Stoppage 16 = Accident black spots 17 = Water levels -9 = Not answered
ZE_02	If the above questions did not allow you to mention an important bottleneck for your companies' hinterland transport along the corridor, please insert the bottleneck here	Text Input
A208	"Where is this bottleneck located?" **From**	Dropdown Selection 1 = Belgium

		2 = Germany
		3 = France
		4 = Italy
		5 = Netherlands
		6 = Luxembourg
		7 = Switzerland
		8 = Miscelleanous
		-9 = Not answered
A209	"Where is this bottleneck located?" **Destination**	Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands 6 = Luxembourg 7 = Switzerland 8 = Miscelleanous -9 = Not answered
A210	"Please name us the postal code of towns / locations between which the transport relation is located." **From**	Text Input
A211	"Please name us the postal code of towns / locations between which the transport relation is located." **Destination**	Text Input
A202	"Which mode of transport is affected by the bottleneck?"	Multiple Choice **A102_01**Frage 2/Road **A102_02**Frage 2/Rail **A102_03**Frage 2/Inland water navigation 1 = Not checked 2 = Checked
A204	"How often does this bottleneck affect your business?"	Dropdown Selection 1 = Permanently 2 = Once a day 4 = Several times a day 6 = 1 - 2 times per week 8 = 3 - 4 times per week 14 = 5 - 6 times per week 17 = 1 - 2 times per month 18 = 1 - 2 times per year 19 = 3 - 5 times per year -9 = Not answered
A212	"Can you locate the 2nd bottleneck mentioned by you in just one country?"	Dropdown Selection 1 = Belgium

		2 = Germany
		3 = France
		4 = Italy
		5 = Netherlands
		6 = Luxembourg
		7 = Switzerland
		8 = Miscelleanous
		-9 = Not answered
A203	"Can you locate this bottleneck with a postal code or city?"	Text Input
A601	"Do you see any further bottlenecks along the corridor Rotterdam - Genoa that hinder you?"	Selection 1 = Yes 2 = No -9 = Not answered
A605	"Please tell us of what kind of bottleneck this is "	Dropdown Selection 1 = Limited choice of mode of transport 2 = Lack of terminal capacity 3 = Lack of availability of terminals 4 = Lack of of transport services 5 = Lack of transport capacity 6 = High traffic volume 7 = Information gaps in the logistics process 8 = Lack of accessibility of terminals (rail side) 9 = Lack of Reachability of terminals (street side) 10 = Night driving ban 11 = Opening hours and loading times of terminals 12 = Problems in shipment completion 13 = Problems in cross-border freight transports 14 = Occasional bottlenecks in the infrastructure 15 = Strike/Stoppage 16 = Accident black spots 17 = Water levels -9 = Not answered
ZE_03	If the above questions did not allow you to mention an important bottleneck for your companies' hinterland	Text Input

		transport along the corridor, please insert the bottleneck here	
A606	"Where is this bottleneck located?" **From**	Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands 6 = Luxembourg 7 = Switzerland 8 = Miscelleanous -9 = Not answered
A607	"Where is this bottleneck located?" **Destination**	Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands 6 = Luxembourg 7 = Switzerland 8 = Miscelleanous -9 = Not answered
A608	"Please name us the postal code of towns / locations between which the transport relation is located." **From**	Text Input
A609	"Please name us the postal code of towns / locations between which the transport relation is located." **Destination**	Text Input
A602	"Which mode of transport is affected by the bottleneck?"	Multiple Choice **A102_01**Frage 2/Road **A102_02**Frage 2/Rail **A102_03**Frage 2/Inland water navigation 1 = Not checked 2 = Checked
A604	"How often does this bottleneck affect your business?"	Dropdown Selection 1 = Permanently 2 = Once a day 4 = Several times a day 6 = 1 - 2 times per week 8 = 3 - 4 times per week 14 = 5 - 6 times per week 17 = 1 - 2 times per month 18 = 1 - 2 times per year

		19 = 3 - 5 times per year -9 = Not answered
A610	"Can you locate the 3rd bottleneck mentioned by you in just one country?"	Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands 6 = Luxembourg 7 = Switzerland 8 = Miscelleanous -9 = Not answered
A603	"Can you locate this bottleneck with a postal code or city?"	Text Input
A001	Please tell us in which country along the Rotterdam - Genoa corridor your branch office is located	Dropdown Selection 1 = Belgium 2 = Germany 3 = France 4 = Italy 5 = Netherlands 6 = Luxembourg 7 = Switzerland 8 = Miscellaneous -9 = Not answered
A002	"Please tell us the postcode of your branch office along the corridor Rotterdam to Genoa"	Text Input Postcode
A401	"Please tell us how many employees this branch of your company has"	Dropdown Selection 1 = 1 to 10 employee 2 = 11 to 50 employee 3 = 51 to 250 employee 4 = Over 250 employee -9 = Not answered
A402	"Please tell us the annual turnover of your branch in 2010."	Dropdown Selection 1 = 1 € to 2 million € 2 = 2 million to 10 million € 3 = 11 million to 50 million € 4 = Over 51 million € -9 = Not answered
A407	"Please classify your company in one of the following categories"	Multiple Choice **A407_01**Frage 4.7/Inland barge company **A407_02**Frage 4.7/Post and mail services **A407_03**Frage 4.7/Railway

		undertaking
		A407_04 Frage 4.7/Contract logistics
		A407_05 Frage 4.7/Courier / Express / Parcel service
		A407_06 Frage 4.7/Forwarding company
		A407_07 Frage 4.7/Transport service provider
		A407_08 Frage 4.7/Terminal Operator
		A407_09 Frage 4.7/Miscellaneous
		1 = Not checked
		2 = Checked
ZE_04	**A407_09**Frage 4.7/Miscellaneous	Text Input
A301	"How would you **estimate** the following location factors for your logistic location?"	Scale (fully labeled)
		A301_01 Territorial proximity to your customers
		A301_02 Cooperation with other logistic companies
		A301_03 Cooperation with public authorities
		A301_04 Infrastructure - road network
		A301_05 Infrastructure - railway network
		A301_06 Infrastructure - inland water navigation
		A301_07 Infrastructure - connections terminals towards ship
		A301_08 Infrastructure - connections terminals towards rail
		A301_09 Quantity of specialised personnel
		A301_10 Quality of specialised personnel
		A301_11 The regions' attractiveness for qualified labour
		A301_12 Labour costs

		A301_13 Local tax burden
		A301_14 Price level for energy and water
		A301_15 Availability of logistic space
		A301_16 Price level of industrial real estate for office-, storage-, and logistic estate
		A301_17 Information about logistic offerings and transport services
		1 = very good
		2 = good
		3 = bad
		4 = very bad
		-1 = Don't know
		-9 = Not answered
A302	"Please tell us how **IMPORTANT** are these location factors for your logistic company?"	Scale (fully labeled)
		A301_01 Territorial proximity to your customers
		A301_02 Cooperation with other logistic companies
		A301_03 Cooperation with public authorities
		A301_04 Infrastructure - road network
		A301_05 Infrastructure - railway network
		A301_06 Infrastructure - inland water navigation
		A301_07 Infrastructure - connections terminals towards ship
		A301_08 Infrastructure - connections terminals towards rail
		A301_09 Quantity of specialised personnel
		A301_10 Quality of specialised personnel
		A301_11 The regions' attractiveness for qualified labour

		A301_12 Labour costs
		A301_13 Local tax burden
		A301_14 Price level for energy and water
		A301_15 Availability of logistic space
		A301_16 Price level of industrial real estate for office-, storage-, and logistic estate
		A301_17 Information about logistic offerings and transport services
		1 = very good
		2 = good
		3 = bad
		4 = very bad
		-1 = Don't know
		-9 = Not answered
A501	"Is there anything else that you wish to mention?"	Text Input
A502	"Do you wish to be informed personally about the results of this Survey?"	Collect E-Mail Addresses Separately