



WP3 CENSUS OF LOGISTICS AND MULTIMODAL

Guidelines for the Transferability of the Indicators in other European Contexts

Graz (AT), 13/02/2011

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1 SUMMARY

WATERMODE aims to promote the coordination between the private and public actors dealing with logistics and spatial planning, for a better management of the multi-modal transport solutions. In particular, the project aims at increasing the integration of the waterborne transport modes in the logistics chain, supporting the transnational dimension in the national and local strategies for the valorisation of the sea and inland waterways port infrastructures.

In Work Package 3 (WP3) – Census of Logistics and Multimodal, the aims are twofold:

- ✓ To define a set of indicators for the evaluation of the multimodal and port facilities;
- ✓ To set up a database of ports and multimodal logistics facilities in the countries of the partners (10), accordingly with the set of indicators.

The indicators were defined by a panel of transnational experts, to evaluate ports and the logistics facilities accordingly with their relevant characteristics.

These indicators can be grouped into 4 main areas:

- ✓ General data of the facility
- ✓ Questions about equipment and capacity
- ✓ Questions about geostrategic indicators
- ✓ Innovation / Plans for the future

For the census, a questionnaire was created which was available as a print and an online version and the “Manual for the Census” provided instructions on how to proceed with the census.

The questionnaire was been translated to local language and after selection of the facilities the actual census took place in 2010. The resulting data entered into the database is also published on the internet site of the project (www.watermode.eu) and will be a support instrument in the decision making process of policy makers and business operators.

After these actions the whole process was reviewed and the findings were compiled into this report which gives guidelines how the indicators can be transferred to other European contexts.

2 OVERVIEW

2.1 WATERMODE in general

WATERMODE has been set up to promote a better coordination between policy actors and stakeholders to increase the competitiveness of the alternatives to road transport, especially valorising the potentials of the water / ground multimodal logistics cooperation. To do that, project activities have been defined to provide instruments for improving the policy coordination and highlight potentials of water / ground multimodal transport.

WATERMODE is a project under the SEE Transnational Cooperation Programme of the European Commission and has the Project Code SEE/A/308/3.3/x.

The programme area is crossed by relevant freight traffic flows, originated and directed in- and outside it. This traffic is mainly supported by road infrastructures that were not planned for these flows. The European investments in transport infrastructures are supporting the modernisation of the network, but their implementation is far from being achieved. Therefore public authorities and operators need to coordinate the efforts for a more efficient use of the available infrastructures. In the programme area the waterborne transport solutions have lot of potentialities: the port infrastructures of the area are being revalorised, but these activities lack of a transnational coordination to increase the optimisation of the actions and the competitiveness of the multimodal transport solutions. Moreover, there is the need to demonstrate in what cases the ground/water multi-modal transports solutions are more efficient compared to road transport, in order to focus the investments

This will be achieved by:

- ✓ Defining a set of general indicators for measuring and recording the services of the multimodal ground / water logistics platforms. This instrument will be addressed to policy makers and to public and private logistics operators to evaluate the current situation, orienting the investments for the competitiveness of the infrastructures, increase the attractiveness of the multimodal transport solutions
- ✓ Defining common strategies for implementing waterborne multimodal solutions, through the coordination of the relevant policymakers and operators
- ✓ Increasing the attractiveness of the waterways transport, by supporting the implementation of relevant investments for the improvement of the connections between sea- / river-port infrastructures and hinterland areas
- ✓ Testing the competitiveness of multimodal waterborne alternatives to road transport, by comparing the external and internal costs of the different transport modes on predefined routes
- ✓ Increasing the commonality of the training procedures on safety for human resources in ports and multimodal platforms, in order to ease the business cooperation between ports and multimodal facilities in the area.

To achieve the above mentioned tasks a strong emphasis will be put on promoting, disseminating and raising awareness. Also the multiplier effect is important to the project.

2.2 Structure of the Work Programme of WATERMODE

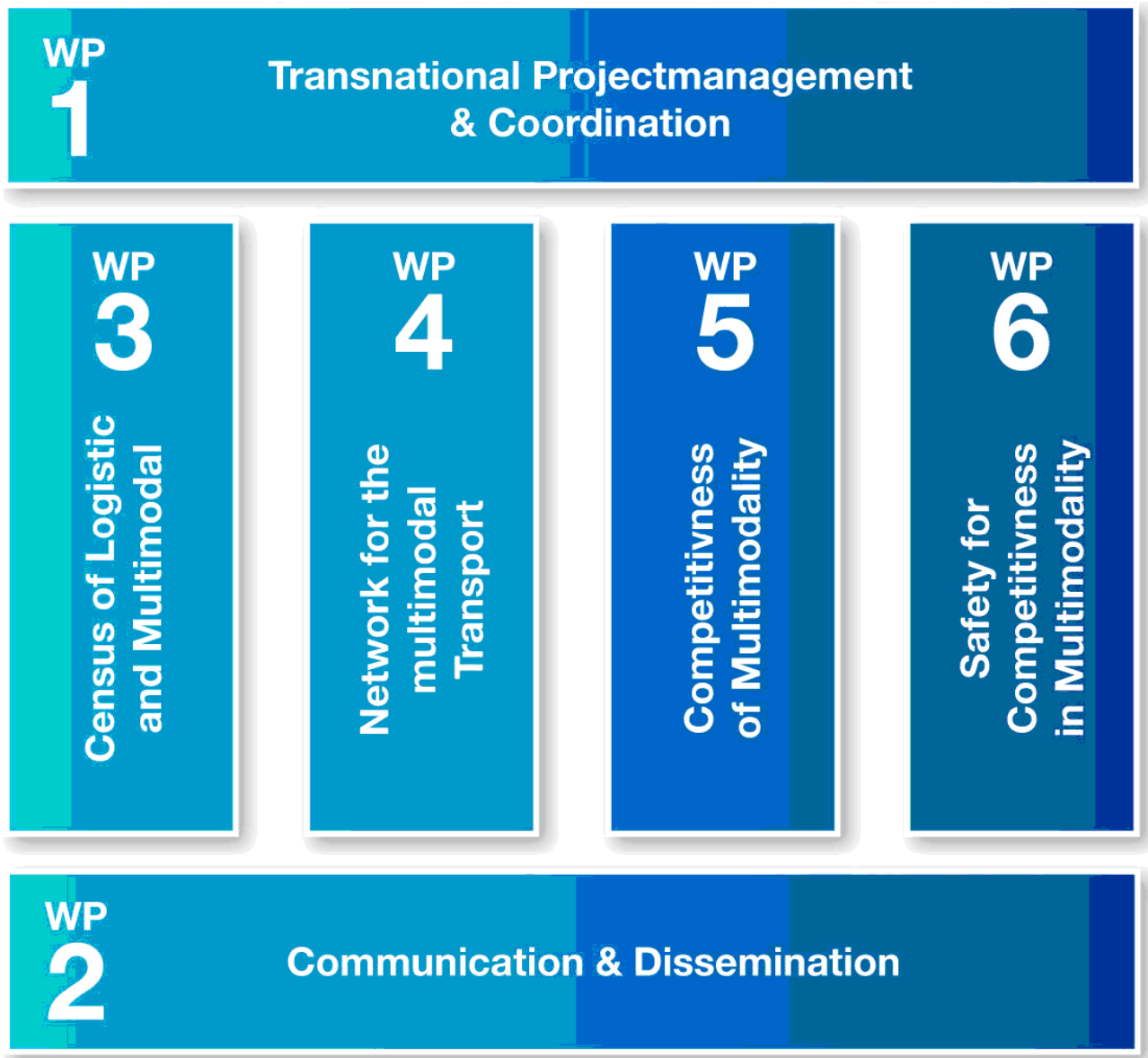


Figure 1: Work package structure WATERMODE

WATERMODE is structured into six work packages. WP 3 is the census of logistics and multimodal.

2.3 WATERMODE WP3 – Census of Logistics and Multimodal

WP3 acted as a starting point for the whole WATERMODE-project and defined an inventory of facilities and therefore a solid baseline for the further activities. The aims of WP3 were twofold:

- ✓ To define a set of indicators for the evaluation of the multimodal and port facilities;
- ✓ To set up a database of ports and multimodal logistics facilities in the countries of the partners (10), accordingly with the set of indicators.

The indicators were defined by a panel of transnational experts, to evaluate ports and the logistics facilities accordingly with their relevant characteristics, as position, accessibility, services offered, multimodal connections, innovations, etc. The set of indicators was tested for the database of the ports and multimodal logistics platform of the 10 countries involved in the project. The database was conceived as support instrument in the decision making process of policy makers and business operators. The set of indicators will be proposed to the EU authorities as contribution to the need expressed by the European commission (COM(2007)607) for common indicators for the evaluation of logistics facilities

WP3 covered the following 3 activities:

Activity 1: Definition of the Indicators for the evaluation of ports and multimodal logistics facilities - a transnational working group will define the indicators for the evaluation of ports and multimodal logistics facilities. It defines the questionnaire to be used for the collection of the data and produce a manual assisting the implementation of the census. The partners will translate the questionnaire into their own languages. A technical committee will provide guidelines for the action.

Activity 2: Census of the ports and multimodal facilities in the 10 countries. A database will be developed for the collection and organisation of the data. Each partner will collect, elaborate and provide the data. The database will be an online tool published on the website of the project. The partners will sensitise the stakeholders on the potentials of the new online tool.

Activity 3: Presentation and sensitisation - the partnership will present the set of indicators as a good practice to the EU and national authorities. The partnership will focus on the transferability of the model at European level. The observer partners will support the action.

2.4 Task assignment in WP3

FGM-AMOR was the leader of this working package and was therefore also responsible for the reporting actions.

The census of ports and multimodal facilities was prepared by a working group which consisted, besides the workpackage leader, of project partners from the Venice Port Authority, BIC ATTIK, Port of Koper, Pannon Business Network and the National company maritime ports Administration of Constantza.

The actual carrying out of the census was allocated to the local partners and will be described in more detail in 3.3 Responsibilities.

2.5 About this Report

The present report is summarising the work done in WP3 of WATERMODE, reviews the whole process of the census, draws conclusions in order to ease the process and shows lessons learned to give guidelines how the indicators can be transferred to other European contexts.

The report gives a short overview over the WATERMODE project in general and the workpackage 3, the census of ports and multimodal facilities, in special.

It describes the indicators that were used for the census and the technicalities. It shows who was responsible for which area and how many return was achieved and describes the actual process of the census.

The chapter lessons learned describes how the census could be improved and is structured according to technical remarks, discussion of the indicators, general remarks and derived recommendations.

The last chapter “Guidelines” gives a step by step how-to on implementing a census of this kind.

3 The composition of the Census of Ports and Multimodal Facilities

3.1 The Indicators used

In activity 3.1 the questionnaire for the census on multimodal logistics facilities was developed¹. The indicators were structured in 4 main parts which are described in detail in the following chapters:

- ✓ General Data of the facility
- ✓ Equipment and capacity
- ✓ Geostrategic indicators
- ✓ Innovation / plans for the future

3.1.1 General data of the facility

The general data gives a general overview of the facility and gives an idea where it is situated, how large it is, which modes of transportation are handled and how the facility can be reached. It also gives a general description and an idea of the size of the facility.

| | |
|--------------------------------------|---|
| Contact details | This part consists of all needed contact information, both for the facility and the contact person. |
| Type of terminal | This shows the type of the terminal – seaport, riverport, freight village, railway terminal, airport or other (to be specified). |
| Handled transport modes | The categories used in the handled transport modes are sea shipping, inland shipping, road transport, rail transport, air transport and other (to be specified). |
| Distribution between transport modes | This is the distribution of the transport modes in percentage. |
| Working hours: | The time when the terminal is open. |
| Company size | The size of the company in ways of number of employees and annual turnover for 2009. |
| Ownership | Ownership of the company in ways of private, public, public private partnership or other. |
| General description | A general, textual description of the facility, e.g. function, administrative organisation, etc. – about 500 – 750 words. |
| Future development plan | Description of the future development plans for the facility - e.g. expansion of operations, extension of area, development of existing services etc. – also free textual description of about 500 - 750. |

¹ This process is described in detail in “Report on the Working Group of WP3 – Census of logistics and multimodal - Elaboration of the Indicators for the Census” issued in 14th of February 2010 by the WATERMODE project consortium.

| | |
|-----------------------------|--|
| Equal opportunities | Question on projects, campaigns or plans for the advancement of women at the facility? |
| Area covered | Indication of the total area of the facility (e.g. with offices, green areas etc.). |
| Schematic overview | A plan, a picture or a map of the facility. |
| ISO certification | Is the facility or parts of it ISO certified and what is the certification number. |
| Additional logistic support | Question on additional logistic offers in the facility. |

3.1.2 Questions about equipment and capacity

In this part the questionnaire focuses on the cargo handled in the facility and on the installations that are used for handling this cargo in the facility.

| | |
|--------------------------------|---|
| Cargo of specific type | This indicates the handling and storing capacity per type of cargo in the facility. WATERMODE distinguishes between the following types of cargo: <ul style="list-style-type: none"> ✓ Dry bulk: such as cement, grains, ores ✓ Liquid bulk: such as petroleum, gasoline, chemicals etc. ✓ General cargo ✓ Containers twenty-foot-equivalent ✓ RORO: "Roll-on/roll-off" ✓ Vehicles: e.g. automobiles. |
| Amount of cargo from 2007-2009 | The quantity handled for the years 2007, 2008 and 2009. |
| Dangerous goods | A general question of the handling and storing of dangerous goods (solids, liquids or gases; e.g. flammable, explosive, toxic, etc.) in the facility. |
| Project cargo | Handling of project cargo which is large, oversized shipments of varied cargo destined for one location and one specific project. (Babylon dictionary) e.g. generators, turbines, reactors, boilers, etc. |
| Cranes | Data on the existing cranes (both mobile (e.g. "rubber tire") or fixed (e.g. "ship to shore") at the facility. |
| Berth / Quay | Data on the length of berth and quay at the facility. |
| Maximum ship-size | The maximum size of ships that can be handled in the facility in ways of draught, length, width or height. |
| Loading tracks | Number and length of the (rail) loading tracks for loading and unloading of trains. |
| Other facilities | Additional facilities for loading / unloading, distribution, storage. |

| | |
|-------------------------------|--|
| Flow distribution | Indication of the distribution between import, export, transit and cabotage in the facility. |
| Main origins and destinations | List of the main origins and destinations of the facility. |

3.1.3 Questions about geostrategic indicators

This part is dealing with the traffic connections of the facility.

| | |
|-------------------------------------|--|
| Traffic connections | The question asks the distance to the nearest sea and inland ports, airports and highways. |
| Connection to Pan-European corridor | Is the facility connected to a Pan-European corridor? |

3.1.4 Innovation / Plans for the future

The section on innovative plans and actions of the facility researches the investments planned in the near future and the results expected from them.

| | |
|---|--|
| Investments planned | This is the general amount of investments in ways of money planned in the next 5 years. |
| Source of investments | Indication of the sources of investments planned in ways of own, public, EU private or other. |
| Explanation of investments | Description of the investments in general text. |
| Distribution of investments | Distribution of the investments in percent between the types of infrastructure, equipment, IT, human resources (e.g. training) and others (to be specified). |
| Expected results of investments (general) | Question of the benefits in ways of economic / social / managing / environmental impacts) from the investments. |
| Expected results of investments (multimodality) | Specific question on the results of the investments targeted on the impacts regarding multimodality. |

3.2 Technical circumstances

The master questionnaire was in English language and a MS-word document using a rather basic layout. The reason for that was that the questionnaire had to be translated by the partners to the local language, so it was decided against complicated layout and the need for special software.

In parallel FGM-AMOR developed an online version of the questionnaire. This questionnaire was accessible through the <http://www.watermode.eu> website and was linked to the database of WATERMODE.

The general idea was to make it as easy as possible for the interviewed person and to give different possibilities to fill the questionnaire. So it could either be filled by the interviewee himself, or by the interviewer in a face to face or telephone interview or on paper or online. As a general rule the questionnaire should have been pre-filled as much as possible by the responsible partner.

In the end the data had to be entered into the online questionnaire (by the responsible partner) and all textual answers had to be translated back to English for the purpose of reporting.

The whole questionnaire and the manual are part of the annex of this report.

3.3 Responsibilities

The responsibilities for implementing the census on local level have been divided between the consortium partners. This meant in rough translating the questionnaire and the manual into local language, identify the facilities to be part of the census, contact them and make them take part in the census, process the data and translate it back to English and produce a country report in the end.

So in the actual WATERMODE census the following partners were responsible for the finding and selection of the specific facilities and for carrying out of the census; also the number of facilities in the database are listed in the following table:

| Country | Responsible Partner | No. of Facilities |
|----------------|--|--------------------------|
| Albania | Durres port authority | 1 |
| Austria | FGM-AMOR | 15 |
| Bulgaria | EAMA Executive agency of maritime administration | 11 |
| Greece | Aleksandropolis port authority and BICATTIK | 17 |
| Hungary | PBN - Pannon Business network | 5 |
| Italy | Ancona Port Authority, Levante Port Authority, Veneto Region | 111 |
| Montenegro | LKBAR – port of Bar | 2 |
| Romania | National company maritime ports administration Constantza | 21 |
| Serbia | Venice PA (using external experts) | 16 |
| Slovenia | Port of Koper | 5 |

3.4 The Process of the Census

The census took place in 2010 and finally more than 200 facilities were entered into the database.

The process was planned the following:

- End February 2010 Finalisation of the questionnaire and the Manual
- End March 2010 all responsible partners report which facilities they will question
- End March 2010 questionnaires translated to local language (paper and / or web version)
- April to end of September 2010..... interviews and input of the data into the online questionnaire
- End of September 2010 all interviews finished
- October / November 2010..... Data quality check and country reporting

In reality the interviews and the country reporting were delayed until the end of 2010.

For each area of the census a country report was produced. It briefly summarised the facilities researched, described how the census was implemented locally and which issues were encountered there. In addition the innovations and plans for the future were summarised for the area. These reports were produced by the responsible partners of WATERMODE and then compiled to an overall report by leader of the working package 3.

At the end of the census phase the data from the questionnaires has been exported and has been handed over to the responsible partner (LP Venice Port Authority) for further processing.

The data will be made available on the <http://www.watermode.eu> website (under the dedicated link "Census") for stakeholders, as decision makers, logistic operators, 3PL and other relevant key players, as well as general public, programme authorities and perspective potential SEE's applicants (capitalization of results).. The export format used was MS Excel because it was a one time procedure so the definition and programming of an interface was not appropriate in this case.

This software application has been created to enhance the accessibility of the high valued and detailed information gathered by each responsible Partner during the Census, performed in 10 South East Europe Countries.

The software will be available even after the end of WATERMODE project lifetime and each Partner will be given a password and login to constantly update existing data or to add other logistic facilities that may be interested in being part of the survey.

4 Lessons learned

This section reflects the course of WP3 from three different viewpoints, namely technical remarks concerning what was well received and what could be done differently on the technical side, then the indicators itself and some general remarks.

4.1 Technical Remarks

The main lesson learned regarding the technical implementation of the census was simply put to keep it as simple as possible. A rather large effort was laid on the programming and the implementation of an accessible online census. The main problem was that it was hardly used. The original plan was to identify the responsible persons for filling out the questionnaire at the facilities and then give them access to the database where they should have used its web frontend to fill out the questionnaire online.

In reality the interview partners received the questionnaire per email, filled it using their standard desktop text processing software (MS Word) and then sent it back to the WATERMODE-partner who filled the text into the online tool, or were interviewed face to face or via telephone and the WATERMODE-partner did the rest.

And at the end of the process when the data-clearing was already ongoing and several questionnaires were still outstanding, the process was even done without the online tool and the data was inserted directly in MS Excel because this was chosen as the export / import format for the data in the end.

To draw a conclusion here is rather simple. For easier handling purpose the data collection should have done without the online tool. The target value of about 200 facilities to be researched is too low to justify the use of such mechanisms. A reduced approach using MS Word questionnaires, either in print or sent by mail and then filled by the interview partner or also the project partner would have been the easier and more efficient mode of choice.

The data should then have been collected in a simple Excel table per partner and then been collected by the WP-leader. After the data clearing the data should have been imported into the database. Too many different possibilities, some of them of too high technical complexity, were offered there.

4.2 Discussion of the indicators

The indicators were grouped in 4 parts, which will also be structuring the following discussion of the indicators.

4.2.1 General Data of the facility

Here in general the response rate was very good, only in several occasions the general contact and the specific contact for the questionnaire was the same which should have been taken into account by the questionnaire in a better way.

At the contact details the Skype name proved nearly no results - only 2% answered this questions and it should be omitted.

4.2.2 Equipment and capacity

Several indicators in the equipment and capacity section produced lower results, like e.g. the handling and storing capacities for the facilities produced lower response rates. Also the given set of measurement units was partly ignored. But it should also be mentioned that the amount of data in this category was rather packed and involved a high amount of research if the data was not readily available. So the rate of e.g. only partly filled questionnaires was rather high there and for further census it should be discussed if all the questions there are needed (total handling capacity / storing capacity and quantities for 2007 to 2009).

4.2.3 Geostrategic indicators

This section was rather short but produced good results.

4.2.4 Innovation / plans for the future

In about 40% of the facilities significant investments were stated and those were also well described. Also the questions “What benefits (economic / social / managing / environmental) are expected from the investments in general?” and “What benefits are expected from the investments in terms of multimodality?” provided good results and were answered at a high extent.

4.3 General remarks

After the actual census all partners provided a country report where they summarised the census, gave an overview about their results and also pointed out the main obstacles encountered.

The remarks there were quite unison. The first was that it was rather difficult to identify the adequate and also responsible person for answering the questionnaire. Sometimes this was due to the company structure, sometimes this was due to the simple fact that giving such sort of information is not part of the day to day business for logistic facilities.

The second remark was that the overall commitment and motivation of the facilities to take part in the census was rather low. In some countries this was the case because other similar actions have taken place some years ago. It was also difficult to point out the added value of being part in the WATERMODE inventory compared to regular internet search engines.

These problems were overcome with high effort invested into follow up requests and use of local partners and the partner’s networks. The local approach proved especially valuable because one of the main concerns during the census was to identify the responsible entities inside the facilities. This could be partly eased by the local approach because a lot of personal contact and a good knowledge of local circumstances were needed. In contrary – a top down approach, e.g. if only one partner, maybe from a foreign country, would have tried to promote the census the return rate would have been rather poor.

4.4 Recommendations

Several general recommendations were derived from the process:

| | |
|------------------------|--|
| Keep it simple | use the simplest technical means possible and adapt them well to the needs of your target group, sometimes a simple paper questionnaire is much more applicable and obliging than online tools |
| Keep it convenient | make it as convenient for the interview partner as possible, pre-fill data whenever you can |
| Work and think local | use material in local language and have a local partner embedded in local networks for carrying out the process |
| Stick to the deadlines | set an achievable timetable and stick to it |

5 Guideline

A step to step guideline for the implementation of the census in another context, taking into account the findings of the actual WATERMODE-census is the following:

- define the responsibilities
- define the questionnaire in a common language
- set an achievable time plan
- translate the material to local language
- define the facilities to be researched
- pre-fill the questionnaires with the data that is already available
- locate the responsible persons at the facilities and establish contact with them
- send the (pre-filled) questionnaire to them
- let them choose how to fill the questionnaire (by themselves or being interviewed)
- if they were interviewed let them review the outcome
- translate the questionnaire back to the common language (English)
- enter the final, translated questionnaire into the common database

6 Annex 1 – The Questionnaire used for the Census

7 Annex 2 – The Manual of the Census