

EDINNA members with curricula specifically focussing on navigation on smaller inland waterways



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Preface

This report is written, based on telephone interviews and online research, as an inventory of EDINNA members with curricula specifically focussing on navigation on smaller inland waterways in order of the #IWTS 2.0 project.

There is a total of thirty-two maritime institutes and colleges in inland shipping and navigation who are a member of EDINNA, based in eighteen countries. These inland waterway institutes and colleges are found in three continents, most of them are in Europe, two are found in Africa and one in Asia.

All the information found is from the websites of the organisations as profited on the official website of EDINNA (EDINNA, 2018).

Harlingen, June 2018

Contents

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Summary

This report gives an answer on the question about the current training courses in inland shipping and navigation on smaller waterways by the EDINNA members.

The following chapters cover relevant aspects of the inventory, such as:

* How many EDINNA members are there?
* What is navigation on smaller inland waterways?

Hypotheses:

* All the EDINNA members in the research group have training courses in navigation on smaller inland waterways in their curricula.

Introduction

This inquiry has been done in the order of the #IWTS 2.0 project, to investigate at least eight EDINNA members and to take a closer look at their curricula in navigation on smaller inland waterways.

This report has searched specifically on navigation on smaller inland waterways. This means navigation on waterways other than the main rivers. Channels and small rivers are examples of smaller inland waterways.

1. Members

This chapter deals with the EDINNA members and the creation of the research group. At least eight members must be examined to comply with the research assignment. For this research it was decided to compare ten members.

1.1 The EDINNA members

All the members have been investigated (Appendix I), out of this first investigation a screening has taken place to decide which eight members are compared with each other. One of the EDINNA members had a website that was out of order and three of them are outside Europe. This gives the following outcome:

|  |  |  |
| --- | --- | --- |
| Website out of order[[1]](#footnote-2) | 1 | 3,1% |
| Members outside Europe[[2]](#footnote-3) | 3 | 9,4% |
| Other members | 28 | 87,5% |
| Total number of members  | 32 | 100% |

Table 1: EDINNA members in numbers

1.2 The research group

In principle, all EDINNA members are part of the research group. A part will be investigated via an internet survey, in which their website is examined. Specifically, they are looking for training on smaller waterways in their curricula.

Furthermore, as many schools as possible will be contacted via e-mail and telephone to fill in a questionnaire (appendix II).

2. Internet research

The first research done is the investigation of the websites of nine random institutes and/or colleges if they have navigation as a general subject in their curricula. The second research done is the investigation in the curricula specifically on navigation on smaller inland ways.

2.1 EDINNA members with curricula focussing on navigation on inland waterways

The Odessa Maritime Academy in Ukraine does have *navigation* as a subject in their bachelor program, as well in their master program in the subject area ‘Sea and River Transport’ (Odessa National Maritime Academy, 2018). In the master’s degree of the University of Zilina, *inland navigation* is one of the skills the graduate is familiar with after graduation (Department of Water Transport, 2018). Similar things can be found on the website of CFANI, where they mention *navigation* as one of the school subjects (Centre de Formation d'Apprentis de la Navigation Intérieure, 2018). Or on the website of Berufsschule für Maschinen-, Fertigungstechnik und Elektronik, where knowledge of navigation is part of the exam curricula (Berufsschule für Maschinen-, Fertigungstechnik und Elektronik, 2018). And the STC-Group does have navigation in multiple levels in their curricula (STC-Group, 2018).

2.2 EDINNA members with curricula specifically focussing on navigation on smaller inland waterways

The outcome of the online research is that all the colleges and/or institutes do mention navigation as a school subject, a skill or as a part of the exam curricula of the student. Some give a description of the kind of navigation, like GO! De Scheepvaartschool – Cenflumarin. They write in their course schedule *‘with this course you get to know the West-European waterways very well’* (GO! De Scheepvaartschool Cenflumarin, 2018)*.* Or like Zespól Szkól Zeglugi Sródladowej mention that a graduate from their school should be able to *plan and perform a safe way of navigation* (Technik zeglugi sródladowej, 2018)*.*

3. Questionnaire

Besides the research on the internet, all the schools/institutes/universities that are part of the research group have been called for a telephone interview. Some are actually done by telephone others are filled in digital and send by e-mail.

**Block 1: Individual questions**

In this first block of questions, the respondents had to answer some general questions about the name of their institute and what their country of origin is.

The institutions that have cooperated in this study are the following:

* Schiffer-Berufskolleg Rhein, Duisburg, Germany
* University of Craiova, Romania
* National University ‘Odessa Maritime Academy’, Ukraine
* Maritieme Academie Harlingen, The Netherlands
* High School of Ship Transport and Industrial Crafts, Czech Republic

**Question 1.1 – I speak on behalf of**

Most respondents speak on behalf of *a public school* (4) one is speaking on behalf of *a higher education institute.* There are none respondents who are speaking on behalf of *myself, a private training institute* or *other institutes.*

**Question 1.4 – How many students are currently at your school following IWT related training courses?**

**1.5 – Please indicate the area your students are usually going to operate in**

The respondents were also free to specify other waterways, the answers given were:

* Dniper (Maritime University Odessa - Ukraine)
* Mrs. Férová from High School of Ship Transport and Industrial Crafts: *‘Our school is focussed to mechanical engineering and building industry. We provide only three year study of fresh-water shipping completed by vocational certificate 23-65-H/02 Sailor. This study is also unique here. Our graduates run on all waterways al around Europe, including the Czech Republic and since 1-12-2015 they have been certificated as matrose even for the river Thine as we have passed ‘*the audit central commission for the navigation of the Rhine’.’

**Block 2: Smaller waterways navigation in your current curricula**

These questions provide answers to specific parts of the education curricula of the institutes. The respondents were free to elaborate their answers.

**2.1 – Is the smaller waterway navigation part of your current curricula?**

One institute answers with a *yes* the other four answer with a *partially*. Some elaborate their answer;

* Mr. Igor Gladkykh from Maritime University Odessa: *’We, in our curriculum, consider how to handling of vessels divergence and interaction in narrow-waterway areas, as well as maneuverability in the handling of vessels passing through canals.’*
* Mr. Benga from University of Craiova: *‘Navigation on smaller waterways is easier than large river navigation. It is partial compatible with yacht and boat inland pleasure navigation.’*
* Mr. Paulus from Schiffer-Berufskolleg Rhein: *‘Students are sailing on nearly all European waterways. Therefore the topic of smaller waterways is present in the curriculum beneath the main European Waterways.’*
* Mrs. Férová from High School of Ship Transport and Industrial Crafts: *‘As a part of the education we screen the ship manoeuvring, anchoring, bending a rope, turnarounds and we teach the basic knowledge of sailing including the safety.’*

**2.3 – To what extend is smaller waterway navigation part of your curricula?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Yes | Partially | No | No opinion |
| Navigation on smaller vessels | 1 | 3 | 1 | 0 |
| Navigation on smaller waterways | 3 | 1 | 1 | 0 |
| Smaller waterways and vessels in the logistics chain | 2 | 1 | 2 | 0 |

* Mr. Igor Gladkykh from Maritime University Odessa: *‘Navigation theoretical course should be included:*
	+ *Using IENC and they have to read, making corrections etc.*
	+ *Knows AtoN & river symbolisations*
	+ *Using satellite navigation systems*
	+ *Familiarisation with safety, hydro-meteo conditions and radar systems*

*For take a skills of cadets about handling boat, that should be practice – only.’*

* Mr. Benga from University of Craiova: *‘River navigation depends on the dimension of the waterway -AGN Geneva 1996. In my opinion, if a captain is able to navigate on class VII river, he is able to navigate on an inferior class canal/river. The vessel dimensions are smaller, propulsion engines have less power and the tonnage is smaller.’*
* Mr. Paulus from Schiffer-Berufskolleg Rhein: *‘Especially the navigation on smaller waterways is one of the bigger topics in nautical lessons because of the specially of the shallow waer effects. These are trained on the vessel handling simulator.’*
* Mrs. Férová from High School of Ship Transport and Industrial Crafts: *‘Framework Education Programme and School Educational Programme of above mentioned study programme have been checked by the CCNR auditors and compared with the German programmes.’*

**Block 3: Desirability of learning material aiming on smaller waterway navigation**

The respondents had to answer questions about learning material, specially aimed on navigation on smaller waterways.

**3.1 Would additional (certified) learning material/learning modules increase navigational safety on smaller waterways**

|  |  |
| --- | --- |
| Strongly agree | 3 |
| Somewhat agree | 1 |
| Neutral | 2 |
| Somewhat disagree | 0 |
| Strongly disagree | 0 |
| No opinion | 0 |

* Mr. Igor Gladkykh from Maritime University Odessa: *‘Cadets have to know/learn about specific impact of hydro meteorological factors for a specific area of the smaller waterway and a particular boat.’*
* Mr. Benga from University of Craiova: *‘Basic navigation knowledge cover all river classes. There is the difference in knowledge and experience in how to navigate, at a slow speed compared to high speed. Hydrodynamic phenomena around the ship’s body are different and need different abilities.’*
* Mr. Paulus from Schiffer-Berufskolleg Rhein: *‘There is already good lesson material – but the special effects on small waterways can only be trained on real situations on a vessel or on a specialized simulator.’*
* Mrs. Férová from High School of Ship Transport and Industrial Crafts: *‘Unfortunatly, there is no existence of educational materials in Czech language. Our school has higher expenses then because we have to ensure translation of the educational materials. Nevertheless, our teachers use any suitable materials in other languages. Czech Repubulic is legitimate member of European Union and our school is legitimate member of Edinna, so we see this as slight enequity.’*

**3.3 Would additional (certified) learning material/learning modules help your students to find a job abroad (workers mobility)**

|  |  |
| --- | --- |
| Strongly agree | 2 |
| Somewhat agree | 1 |
| Neutral | 1 |
| Somewhat disagree | 0 |
| Strongly disagree | 0 |
| No opinion | 1 |

* Mr. Igor Gladkykh from Maritime University Odessa: *‘It is necessary to learning the materials concerning the legislation of those countries in which graduates persons intend to work, as well as their rights and duties. The content of the course should also include informal features of work in these countries, such as bureaucracy, national specify/custom, etc.*
* Mr. Benga from University of Craiova: *‘Working on small river is not a good payed job. I do not think that this domain is in a critical situation regarding lack of personnel because of the lack of professional qualifications.’*
* Mr. Paulus from Schiffer-Berufskolleg Rhein: *‘The German apprenticeship diploma by the Chamber of Commerce is an ‘all in’ and therefore no additional modules are necessary.’*
* Mrs. Férová from High School of Ship Transport and Industrial Crafts: *‘Our graduates work mostly abroad and we are sure that international dictionary of technical terms would be really helpful. Czech language included.’*

**3.5 Would you personally encourage the development of additional (certified) learning material/learning modules for the navigation on smaller waterways**

|  |  |
| --- | --- |
| Strongly agree | 2 |
| Somewhat agree | 1 |
| Neutral | 1 |
| Somewhat disagree | 0 |
| Strongly disagree | 0 |
| No opinion | 1 |

* Mr. Benga from University of Craiova: *‘In general, channel navigation is a recreational activity. Freight transport on canals is competed by road transport. Shorts courses are welcome for this type of navigation.’*
* Mrs. Férová from High School of Ship Transport and Industrial Crafts: *‘As we are not the shipping school to all intends and purposes, but we provide only one education training of lower grade. We are prepared to adjust to the agreement o fother country representatives. I hope we would be able to help with possible implementation of Czech language in these educational materials.’*

Conclusion

The research can be split up in two parts, an internet research and the questionnaire.

Internet research

The websites of the following schools / institutes have been thoroughly investigated for internet research:

* Admiral Makarov State University of Maritime and Inland Shipping
* Berufsschule fur Maschinen-, Fertigungstechnik und Elektronik
* Centre de Formation d’Apprentis de la Navigation Interieure
* Colegiul Tehnic ‘Dierna’ Orsova
* Department of Water Transport – University of Zilina
* GO! De Scheepvaartschool Cenflumarin
* Odessa National Maritime Academy
* STC-Group
* Technik Zeglugi Srodladowej

The results of the internet research is that actually all schools name navigation on their website. Some specify this even further, with others it is only appointed.

Questionnaire

For the survey with the questionnaire many schools were approached (Appendix 3) they were called and / or e-mailed. Unfortunately, this research has yielded only five useful questionnaires. Despite the low response, the received questionnaires are very useful due to extensive answers from the respondents.

The questionnaires do show, that all trainings have included navigation on smaller waterways in their training curricula. A number of respondents indicate that they can do more and more, others feel this need less, because their former students mainly sail on the major waterways of Europe.

References

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*GO! De Scheepvaartschool Cenflumarin*. (2018, March 22). Retrieved from GO!, Onderwijs van de Vlaamse Gemeenschap: http://www.descheepvaartschool.be/studiemogelijkheden/rijn-en-binnenvaart/

*Odessa National Maritime Academy*. (2018, March 22). Retrieved from National University; Odessa Maritime Academy: http://www.onma.edu.ua/educational-programms?lang=en

*STC-Group*. (2018, April 5). Retrieved from https://stc-group.nl/wp-content/uploads/2017/07/OER-BOL-Maritiem-Officier-Alle-Schepen-17-18.pdf

*Technik zeglugi sródladowej*. (2018, April 11). Retrieved from Zespól Szkól Zeglugi Sródladowej Naklo nad Notecia: http://zegluganaklo.pl/technik-zeglugi-srodladowej/

Appendix I EDINNA members

|  |  |
| --- | --- |
| **Country** | **Institute/college**  |
| Austria | Berufsschule für Maschinen-, Fertigungstechnik und Elektronik |
| Belgium | GO! De Scheepvaartschool - Cenflumarin |
|  | Ecole Polytechnique de Huy |
|  | Syntra Midden-Vlaanderen |
| Bulgaria | High River Shipping School |
| Croatia | Faculty of Transport and Traffic Sciences |
| Czech Republic | High School of Ship Transport and Industrial Crafts |
| Democratic Republic of Congo | Commission Internationale du Bassin Congo-Oubangui-Sangha "CICOS" |
| Egypt | River Transport Authority / Regional Institute for River Transport |
| France | Lycee Polyvalent & CFA Emile Mathis |
|  | Association Régionale du Conservatoire Nationale des Arts et Métiers Haute Normandie |
|  | Centre de Formation d'Apprentis de la Navigation Intérieure |
| Germany | Schiffer-Berufskolleg Rhein |
|  | Schulschiff Rhein |
|  | Berufsbildende Schulen Schönebeck des Salzlandkreises |
| India | National Inland Navigation Institute |
| Italy | Consorzio Formazione Logistica Intermodale |
| Netherlands | Maritieme Academie Harlingen and IJmuiden |
|  | STC Groep |
|  | ROC Zeeland |
|  | ROC Friese Poort |
| Poland | Zespól Szkól Zeglugi Sródladowej |
|  | Zespól Szkól Zeglugi Sródladowej |
| Romania | Romanian Maritime Training Centre Ceronav |
|  | Universitatea din Craiova, Department of Egineering and Management of Technological Systems - IMST |
|  | Colegiul Tehnic "Dierna" Orsova |
| Russia | Admiral Makarov State University of Maritime and Inland Shipping |
|  | Moscow State Academy of Water Transport |
|  | Volga State University of Water Transport |
| Serbia | Secondary school of shipping, shipbuilding and hydrobuilding |
| Slovakia | University of Zilina - Dep. of Water Transport |
| Ukraine | Odessa National Maritime Academy |

**Appendix II Questionnaire**

**Questionnaire for a telephone interview to identify training courses aimed on the navigation on smaller waterways**

The following questionnaire serves the purpose of identifying existing training courses and/or curricula aiming on the navigation on smaller waterways.

Inland Waterway Transport (IWT) offers relatively slow, cheap, climate friendly hinterland transport alternatives for commodities transported in large quantities or bulk. The energy input per t/km is superior to rail, road transport. Many waterways in Europe remain widely un-/underused in the past decades.

Addressed challenges:

* Low awareness about small waterway transport opportunities
* Low innovation in small barge development, transhipment of goods
* Lack of expertise in using small waterway opportunities
* **Lack of training content and dedicated crews for small waterway sailing**

Partners join forces; mobilise potentials and capacity to move freight to yet under-used waterways by:

* Realising a quick modal shift by introducing new and proven logistic technologies and support logistic managers that decide about modal shifts.
* Make better use of existing waterways by adapting them towards a sufficient standard size vessel.
* Make better use of existing waterways by developing innovative sustainable small barge concepts.
* **Modernizing IWT education, training with a focus on navigation on smaller waterways**.

IWTS 2.0. facilitates use of IWT on smaller waterways (comprehensive network) in the NSR region linking them to main TEN-T corridors.

We are aiming on the development of education and training materials for IWT crews aiming especially on the needs for smaller waterway navigation to meet the growing demand for a steady quantity of well trained workforce in this attractive sector. Lesson material will be disseminated to relevant IWT educational institutions in order to include them into their standard curricula

**How to fill in the Questionnaire:**

1. **Multiple choice Questions:**

Please indicate the answer of choice by replacing the **o** by an **x**

**Example 1:**

I speak on behalf of:

**o** Myself

**x** A public authority

**o** A private organization,

**o** A professional association

**o** Other (please specify)

…………………………………………………………………...

**Example 2:**

Is the current system sufficiently save preventing incorrect use and identification?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Yes (1)** | **Partially(2)** | **No (3)** | **N/ANo opinion** |
|  | **x** | **o** | **o** | **o** |

1. **Open Questions:**

Please type your answer as free text.

**Block 1: Individual Questions**

1.1 I speak on behalf of:

**o** Myself

**o** A public school

**o** A private training institute,

**o** A higher education institute

**o** Other (please specify)

…………………………………………………………………...

* 1. Please identify the institution you represent

1.3 Please indicate your country of origin:

1.4 How many students are currently at you school following IWT related training courses?

**o** Less than 20

**o** Between 20 and 50

**o** Between 50 and 100

**o** More than 100

**o** Not applicable

1.9 Please indicate the area your students are usually going to operate in

**o** Rhine Basin

**o** Danube and Sava Basin

**o** Other German waterways

**o** Other French waterways

**o** Other Dutch waterways

**o** Others (please specify)

…………………………………………………………………...

**Block 2: Smaller waterway navigation in your current curricula**

* 1. :Is the smaller waterway navigation part of your current curricula?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Yes (1)** | **Partially(2)** | **No (3)** | **N/ANo opinion** |
|  | **o** | **o** | **o** | **o** |

* 1. Please feel free to elaborate
	2. To what extend is smaller waterway navigation part of your curricula?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Yes (1)** | **Partially(2)** | **No (3)** | **N/ANo opinion** |
| **Navigation on smaller vessels** | **o** | **o** | **o** | **o** |
| **Navigation on smaller waterways** | **o** | **o** | **o** | **o** |
| **Smaller waterways and vessels in the logistics chain** | **o** | **o** | **o** | **o** |

* 1. Please feel free to elaborate

**Block 3: Desirability of learning material aiming on smaller waterway navigation**

* 1. Would additional (certified) learning material/ learning modules increase navigational safety on smaller waterways:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Strongly agree (1)** | **Somewhatagree(2)** | **Neutral (3)** | **Somewhatdisagree(4)** | **Stronglydisagree(5)** | **N/ANo opinion** |
|  | **o** | **o** | **o** | **o** | **o** | **o** |

* 1. Please feel free to elaborate
	2. Would additional (certified) learning material/ learning modules help your students to find a job abroad (workers mobility):

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Strongly agree (1)** | **Somewhatagree(2)** | **Neutral (3)** | **Somewhatdisagree(4)** | **Stronglydisagree(5)** | **N/ANo opinion** |
|  | **o** | **o** | **o** | **o** | **o** | **o** |

* 1. Please feel free to elaborate
	2. Would you personally encourage the development of additional (certified) learning material/ learning modules for the navigation on smaller waterways:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Strongly agree (1)** | **Somewhatagree(2)** | **Neutral (3)** | **Somewhatdisagree(4)** | **Stronglydisagree(5)** | **N/ANo opinion** |
|  | **o** | **o** | **o** | **o** | **o** | **o** |

* 1. Please feel free to elaborate

**Appendix III The actual research group**

Due to a low response of the research group, more schools and institutes have been contacted. In the list below is an overview of the schools and institutes that have been contacted, but haven’t answered.

|  |  |  |
| --- | --- | --- |
| **Country** | **Institute/college**  |  |
| Austria | Berufsschule für Maschinen-, Fertigungstechnik und Elektronik | Callede-mail  |
| Belgium | Syntra Midden-Vlaanderen | Called e-mail |
| France | Centre de Formation d'Apprentis de la Navigation Intérieure | Callede-mail  |
| Germany | Schulschiff Rhein | e-mailcalled |
| Italy | Consorzio Formazione Logistica Intermodale | Callede-mail  |
| Netherlands | ROC Zeeland | e-mail |
|  | ROC Friese Poort | e-mail  |
| Poland | Zespól Szkól Zeglugi Sródladowej | e-mail |
| Romania | Romanian Maritime Training Centre Ceronav | Called |
| Russia | Admiral Makarov State University of Maritime and Inland Shipping | e-mail  |

1. Colegiul Tehnic "Dierna" Orsova - Romania [↑](#footnote-ref-2)
2. #IWTS 2.0 is a project funded by the European Union [↑](#footnote-ref-3)