

EVALUATION REPORT

Evaluation of previous examples on course manuals addressed to inland navigation personnel in order to comply with the CESNI standards of competences (D 3.1)



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SUMMARY COMPETING REPORT

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Introduction

This document 'Deliverable 3.1 Evaluation report of the previous examples on Course Manuals', focuses on the collection and evaluation of the materials developed in the previous European projects that dealt with the Inland Waterway Transportation (IWT).

Aim WP 3

The main aim of WP 3 is to develop curricula and lesson materials for model courses addressed to inland navigation personnel, based on the provisions of the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and CESNI Standards for competence for Operational level and Management level. This, taking into account that in various former European projects didactical materials were developed for various model courses addressed to inland navigation personnel, which are not based on the CESNI Standards for competence.

According to the provisions of EU Directive 2017/2397 set out in Annex I- Minimum requirements for age, administrative compliance, competence and navigation time. There are 3 educational programmes for deck crew members at operational level (Boatman, Able Boatman and Helmsman) and 2 educational programmes for Management level (Boatmaster).

For the development of activities within WP3, two educational programmes were selected which are: Educational Programme for Boatman- Operational level, and Educational Programme for Boatmaster- Management level

First stage Deliverable 3.1 - Inventory

In the first stage of the development of Activity 3.1, an inventory of the main relevant results of the previous European projects was conducted. The work package leader (WPL) of WP 3 CER prepared an inventory structure template, which is a list of relevant didactical materials(Annex 1) and the template for the comparative analysis of the didactical materials collected and the existing CESNI Standards of competence. All responsible partners were involved in the collection of the main relevant materials of the previous European projects which focused on the preparation of the course curricula and course manuals addressed to inland navigation personnel.

Second stage Deliverable 3.1 – Comparative analysis

After the capitalization of the main relevant materials from these previous European projects, the information on the main relevant didactical materials was the subject to a comparative analysis with the existing standards of competence for inland navigation personnel, such as CESNI Standards of competences. The comparative analysis was done to determine to what extent they meet the requirements of the CESNI standards of competence,

The CESNI Standards of competences are developed for the inland navigation personnel at the Operational level and at the Management level and are structured in the following 7 parts:

- Navigation
- Operation of the craft
- Cargo handling, stowage and passenger transport
- Marine engineering and electrical, electronic and control engineering



- Maintenance and repair
- Communication
- Health and safety and environmental protection.

Third stage –Deliverable 3.1 – Evaluation and selection criteria

Taking the provisions of application form into account, the course curricula and course manuals/lesson materials selected by the responsible partners were evaluated on the following elements:

- Content;
- Didactical usability;
- Usability of teaching aids;
- Elements included;
- Usability of work-based learning;
- Compliance with CESNI Standards of competence

The course curricula appointed in Annex 2, were selected because they:
are provided in the English language;
can be used without copyright because they were developed within the European projects.

This makes that they are useful for development of course curricula in this project and they are in compliance with the CESNI Standards of competence and are addressed to the inland navigation crew members. All other documents included in the table presented in Annex 3 of this document will be used as reference documents during the development of the course manuals in this project.

Division small working groups

After the collection of materials, the 15 partners were divided in 7 small working groups, which were established for the development of course manuals. For each group a partner is appointed as a group leader. Each working group is responsible to develop 2 course manuals for the established learning module, namely one for OL and one for ML.

The small working groups will work on the development of the course manuals based on the selected didactical materials and on the expertise in the field of education and training of inland navigation personnel. Other than this, they are in continuous consultation with representatives within the industry for the recommendations on the topics and subjects to be covered in the course manuals. The recommendations received from the industry will be discussed with the representatives of Advisory board for acceptance by all key stakeholders.

Development deliverables WP3

Within WP 3, COMPETING will develop curricula and lesson materials, to ensure the highest level of quality concerning the implementation of future proof IWT E&T throughout the EU. Thus, WP3 will pave the way for the introduction of competency based future proof E&T for inland navigation crew members throughout the EU, where certificates granted are recognised on a European level, and where greening, atomisation and digitalisation as well as communication on a European level are laid down in the E&T programmes.



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LIST OF ABBREVIATIONS

AF	Application Form
AGCNAM	Association de Gestion du Conservatoire National des Arts et Métiers Normandie
ASPs	Associated Strategic Partners
AT	Austria
BLN	Royal BLS- Schuttevaer
BMA	Executive Agency Maritime Administration
CER	CERONAV – Romanian Maritime Training Centre
CESNI	European Committee for Standardization in Inland Navigation
CM	Course Manual
CMINET	Course Manuals for Inland Navigation Education and Training
CtD	Colegiul Tehnic “Dierna” – Orsova
Danube SKILLS	Increased institutional capacity in Danube navigation by boosting joint transnational competences and skills in education and public development services
DC	Danube Commission
E&T	Education and Training institutes
EBU	European Barge Union
EDINNA	Education in Inland Navigation Association
ESO	European Skipper Organization
ETF	European Transport Workers’ Federation
EU	European Union
EWITA	European Web Platforms and Training Concepts for Intermodal Inland Waterway Transport
FHOÖ	University of Applied Sciences Upper Austria Research & Development Ltd.
HINT	Harmonized Inland Navigation Transport through education and information technology
IWTCOMP	Competency Based Inland Waterway Transport Education & Training
ITB	Institut Pour Le Transport Par Batellerie
IWT	Inland Water Transport
KTA	GO! De Scheepvaartschool Cenflumarin
LDV	Leonardo da Vinci Programme
LNG	LNG Master plan for Rhine-Main-Danube
MAH	Stichting Dunamare Onderwijsgroep
MSB	Maritime School Bratislava
ML	Management level
MOK	Maritiem op Koers
NELI	Cooperation network for logistics and nautical education focusing on Inland Waterway Transport in the Danube corridor supported by innovative solutions
OL	Operational level
PP(s)	Project Partner(s)
PRO	Pro Danube Management GmbH
PROMINENT	Promoting Innovation in the Inland Waterways Transport (IWT) sector
SBK	Schiffer-Berufskolleg Rhein
STC	Stichting STC Group
TTIET	Train the Trainer course material for Inland Navigation Education and Training
UCV	University of Craiova
UoR	University of Rijeka
UoZ	University of Zilina



WPL	Work Package Leader
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1. INTRODUCTION

The main aim of this document is to consolidate the findings on development of curricula framework for crewmembers at the OL and ML and lesson materials in accordance with the CESNI Standards of Competences, by means of course manuals, actions developed in 8 European countries: DE, AT, SK, HR, NL, BY, F, and RO.

2. GENERAL CONTEXT

At the time being, the EU has a fragmented landscape of E&T offered to future crew members of inland navigation vessels. In addition, the current legislative landscape is hampering labour mobility and the current landscape of IWT E&T institutes is to a large extent still providing old-fashioned knowledge-based education and training (classroom training with only theoretical lectures). The change towards a European wide recognised competence-based education and training system will not only increase safety and labour mobility, but will in the meantime modernize E&T provided for the IWT sector.

Students/Trainees graduating from E&T institutes complying with the new EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and CESNI Standards of competence will obtain a Union Certificate of Qualification, thereby able to work throughout the EU. The development of the applicable curricula and lesson materials in the framework of COMPETING, in cooperation between the industry, E&T institutes as well as competent authorities, will pave the way for implementation of competence-based E&T.

The main objective of the activities within the WP 3 is to produce course frameworks (curricula) for the seven core competences for OL and seven core competences for ML and lesson materials in accordance with the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and CESNI Standards of competence, based on the findings from the 8 European countries by the responsible partners with the representatives of public and private education and training institutions, inland shipping companies, certification authorities and individual crew members.

According to the provisions of EU Directive 2017/2397 set out in Annex I- Minimum requirements for age, administrative compliance, competence and navigation time, there are 3 educational programmes for deck crew members at operational level (Boatman, Able Boatman and Helmsman) and 2 educational programmes for Management level (Boatmaster).

For the development of activities within WP3, 2 educational programmes were selected, such as:

Educational Programme for Boatman- Operational level, and

Educational Programme for Boatmaster- Management level.

For these 2 educational programmes will be prepared, namely course curricula and lesson materials, only for the specialized part of the educational programme that will refer to the competences to be acquired in order to be part of the crew members of the inland navigation vessels, such as the 7 learning modules based on the CESNI Standards of competence.

Activity 3.1 refers to the evaluation of the existing didactical materials provided by the relevant previous European projects which focused on the preparation of the Course Manuals and course curricula addressed to inland navigation personnel.

The final result of this activity will be the evaluation report of the previous example of didactical materials on the content and didactical usability.



3. CAPITALIZATION OF THE RELEVANT RESULTS OF PREVIOUS EUROPEAN PROJECTS

3.1 SUMMARY OF WORKING CONCEPT

The main aim of WP 3 is to develop curricula and lesson materials for model courses addressed to inland navigation personnel, based on the provisions of the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and CESNI Standards for competence for Operational level and Management level.

Taking into account that in various former European projects didactical materials were developed for various model courses addressed to inland navigation personnel, which are not based on the CESNI Standards for competence. In the first stage of the development of Activity 3.1, an inventory of the main relevant results of the previous European projects was conducted.

CER as activity leader prepared the inventory structure template, conducted and supervised this action and **all responsible partners were involved in the collection of the main relevant results of the previous European projects**. Suggestions on sources of information were given by CER, needed information being searched from the projects and/or EDINNA websites, as well as from the education and training institutes involved in professional qualification of inland navigation personnel and international river commissions.

CER prepared the template of the list of relevant didactical materials and the template for the comparative analysis of the didactical materials collected and the existing CESNI Standards of competence.

3.2 CAPITALIZATION OF THE RELEVANT RESULTS

In the first stage, all the responsible partners conducted by CER as activity leader, started the collection of the main relevant results of the previous European projects focused on the preparation of the course curricula and course manuals addressed to inland navigation personnel.

The consolidated table with the relevant results is presented in Annex 1 of this deliverable document. Responsible partners selected the main relevant didactical materials that were prepared in European projects such as: NELI, EWITA, Danube SKILLS, Smart- Qu@lification, Ler(n)en de Euregio, TTIET, CMINET, HINT, LNG Masterplan, PROMINENT, IWTCOMP, MOK. The focus was on course curricula and course manuals.

In the consolidated table from Annex 1 of this deliverable document useful information are provided on the name of the didactical materials as well as on the websites where these documents and the language in which they were developed can be found.

Selected didactical materials were developed in the education and training institutes, such as: CER, UoR, MAH, SBK. These materials are only available in the national languages of these institutions, and also manuals on the Sava River Navigation and Radiotelephone Service in the Sava River Basin adopted by the International Sava River Basin Commission.

3.3 COMPARATIVE ANALYSIS

After the capitalization of the main relevant results from previous European projects, the information on the main relevant didactical materials was the subject to a comparative analysis with the existing standards of competence for inland navigation personnel, such as CESNI Standards of competences. CESNI Standards of competence were adopted by CESNI in November 2018, and upon adoption by the



European Commission and European Parliament at the latest January 2020, these standards will come into force in the EU.

The comparative analysis was made separately for course curricula and course manuals included in the table presented in Annex 1.

So, in **Annex 2** of this deliverable document the comparative analysis for Course curricula is presented and in the **Annex 3** the comparative analysis for Course manuals.

CESNI Standards of competences are developed for the inland navigation personnel at the Operational level and at the Management level and are structured in 7 parts such as:

1. Navigation
2. Operation of the craft
3. Cargo handling, stowage and passenger transport
4. Marine engineering and electrical, electronic and control engineering
5. Maintenance and repair
6. Communication
7. Health and safety and environmental protection.

The comparative analysis was done to determine to what extent they meet the requirements of the CESNI standards of competence, useful information for the development of course curricula and course manuals.

4. EVALUATION OF THE DIDACTICAL MATERIALS

4.1 GENERALITIES

Taking into account the provisions of AF the course curricula and course manuals/lesson materials selected by the responsible partners were evaluated on the following elements:

- Content;
- Didactical usability;
- Usability of teaching aids;
- Elements included;
- Usability of work-based learning;
- Compliance with CESNI Standards of competence

4.2 EVALUATION OF THE COURSE CURRICULA AND COURSE MANUALS/LESSON MATERIALS

From the course curricula presented in Annex 2 of this deliverable document the following course curricula were selected in order to be evaluated:

- Course Curriculum for bunkering personnel and staff, for OL and ML and were appropriate for support level;
- Course Curriculum for inland navigation crew members, for OL and ML, for use LNG as a fuel;
- Course Curriculum for inland navigation crew members, for OL and ML, for use LNG as a cargo;
- Course Curriculum for students focusing on logistics;
- Course Curriculum for Human resource management and social responsibility on board;
- Course curriculum for Safety practices in emergency situations during ship operation.

Only these course curricula were selected because they are provided in the English language. They can be used without copyright because they were developed within the European projects. This makes that



they are useful for future development of course curricula in this project, because they are in compliance with the CESNI Standards of competence and are addressed to inland navigation crew members. All other documents included in the table presented in Annex 2 of this document will be used as reference documents during the development of the course curricula in this project.

From the course manuals presented in Annex 3 of this deliverable document the following course manuals were selected in order to be evaluated:

Safety practices for emergency situations during ship operation -OL- course compendium
Human resource management and social responsibility on board -ML- course compendium
Train the trainer course for Inland Navigation Simulator Training- course manual
Inland Navigation – Course Manual
Multilingual communication (English, Dutch, French and German)-Course manual
Best practices in competency based training and assessment- course manual
LNG as a fuel – Lessons materials
LNG as a cargo- Lessons materials

All other documents included in the table presented in Annex 3 of this document will be used as reference documents during the development of the course manuals in this project.

Evaluation of didactical materials based on the aforementioned criteria:

The **content** of the didactical materials are structured in the main parts of one existing standard course curriculum and course manual (e.g. IMO model courses), and the items are in compliance with CESNI Standards of competence for OL and ML. In this respect they are useful for the future development of curricula and course manuals in this project.

Didactical usability derives from the fact that they can contribute to the acquisition of the knowledge and practical skills by the participants in these programs, taking into account their thematic content in the IWT domain. These didactical materials largely respect the fundamental didactical principles being developed for a specific domain and for a specific target group, differentiated by personnel at the operational and at the management level. They are being accessible for the use by specialists in training and education and being sustainable over time because they are developed on the basis of a harmonized legal framework.

Usability of teaching aids- the teaching aids mentioned in these didactical materials play an important role in teaching and learning process. The teaching aids motivate the students to learn better and support the teacher to clarify the subject matters more easily and they facilitate the proper understanding to the students. The lists of teaching aids are indicative and are important for the future development of the curricula and course manuals in this project as well as for the E&T institutes. The importance is that they can thus find out what they need to acquire in order to carry out the educational programs in optimal conditions in order to acquire by the students the competences required by the European legal framework.

Elements included- the items included in these didactical materials are in compliance with the CESNI Standards of competence and are useful for the future development of the course curricula and course manuals in this project. The specific topics are focused on the training needs of crew members on board of inland vessels.

Usability for work-based learning- in the curricula are included forms of learning that takes place on board of the real vessel, ashore installation and in training campus. This means that the elements of learning in the workplace with classroom-based learning are combined. It provides individuals with the skills needed to successfully obtain and keep jobs and progress in their professional development. The list of equipment, facilities for practical training are important for the future development of the course curricula in this project as well as for the E&T institutes who must know what resources they need in order to carry out such educational programs.



Compliance with CESNI Standards of competence- are presented in the Annex 2 and Annex 3 of this deliverable document in the last column for each of the selected didactical material.

5. RECOMMENDATIONS ON TOPICS AND SUBJECTS FOR COURSE MANUALS

5.1 WORKING GROUPS FOR PREPARATION THE COURSE MANUALS

Small working groups were established for development of course manuals. The working group leader is highlighted in bold. Each working group is responsible to develop 2 (two) course manuals for the established learning module (one for OL and one for ML), as is shown in the figure below:

SMALL WORKING GROUPS FOR PREPARATION THE COURSE MANUALS
(Table 2)

No.	Working group	Learning modules	No. of course manuals
1.	STC, MAH , SBKR, <u>UoZ</u> , KTA	NAVIGATION (OL and ML)	2
2.	CER, MAH, <u>UoR</u> , KTA	OPERATION OF THE CRAFT (OL and ML)	2
3.	STC , CER, <u>UoR</u>	CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT (OL and ML)	2
4.	IMST , <u>UoZ</u> , AGCNAM, <u>CtD</u>	MARINE ENGINEERING AND ELECTRICAL, ELECTRONIC AND CONTROL ENGINEERING (OL and ML)	2
5.	IMST , <u>UoZ</u> , AGCNAM, <u>CtD</u>	MAINTENANCE AND REPAIR (OL and ML)	2
6.	STC, CER , <u>UoR</u>	COMMUNICATION (OL and ML)	2
7.	CER , <u>UoZ</u> , MAH	HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION (OL and ML)	2

The small working groups will work on the development of the course manuals based on the selected didactical materials and on the expertise in the field of education and training of inland navigation personnel. Besides this they are in continuous consultation with industry representatives for the recommendations on the topics and subjects to be covered in the course manuals. The recommendations received from the industry will be discussed with the representatives of Advisory board for acceptance by all key stakeholders.

5.2 CESNI work on standardization

Given that the education and training system for inland navigation personnel has to be changed until 2022, as a result of transposition of EU Directive 2017/2397 into the national legislation of Member States, the entire education and training system addressing inland navigation personnel will be reformed according to the new European legal requirements. The professional education and training system for inland navigation personnel will be done only on the basis of CESNI Standards of competences. All the competences from the CESNI Standards of competence have to be integrated in all approved



education and training programmes addressing crew members at Operational and Management level in the implementation stage of EU Directive 2017/2397 in the education and/or training system of each EU Member States in order to provide competency -based education and training programmes which have to be recognised at EU level. Standards of competences must be used during the elaboration/revision of the education and training programmes for inland navigation personnel to meet the requirements of the EU Directive 2017/2397 regarding the level of knowledge and abilities for deck crew members.

Whereas the political European decision-making process ended up, the Directive was adopted and published in the Official Journal of the European Union. It became soon clear that the successful implementation of the Directive will be, at the least, equally as challenging and ambitious for all Danube riparian countries as well.

The new reformed competency-based education and training system will include all the requirements for staff certification as crew members.

This new system will be subject to regular revision in the CESNI expert groups, in order to maintain and guarantee the high level of safety in inland navigation and to follow the new technologies development and with a view to include new technologies and new future oriented-skills.

The CESNI work on standards of competences will continue in order to cover all the legal issues of the EU Directive 2017/2397 on certification of deck crew personnel in view of the certification of professional qualifications.

In the preparation of the Course curricula and course manuals in this project, all the activities performed in CESNI expert groups and the results of these oriented activities to be integrated in the lessons materials developed have to be taking into account.

6. CONCLUSIONS

Investment in education and training for competences development is essential to boost growth and competitiveness. In the long-term competences can trigger innovation and growth, move production up to the value chain, stimulate the concentration of higher level competences in the EU and shape the future labour market.

By 2020, 20% more jobs will require higher level of competences. The education and training system needs to drive up standards and levels of achievement to match this demand, as well as encourage the transversal skills needed to ensure young people are able to be entrepreneurial and adapt to the increasingly inevitable change in the labour market during their career.

As a general approach, emphasis has to be placed on delivering the key competences (knowledge and abilities) for employment, increasing the efficiency and inclusiveness of education and training institutions and on working collaboratively with all relevant stakeholders.

The future development of inland waterway sector is hampered by difficulties in terms of labour mobility, persistent vacancies and skills mismatches. The potential benefits of inland navigation can only be brought about if a skilled workforce is available to ensure that the sector can take on its role in the logistics chain in a safe way. Since 2008 the key stakeholder in the Inland Waterway Transport (IWT) sector are cooperating towards the harmonisation and modernisation of professional qualifications in inland navigation.

COMPETING in WP 3 will develop curricula and lesson materials, to ensure the highest level of quality concerning the implementation of future proof IWT E&T throughout the EU. Thus, WP3 will pave the way for the introduction of competency based future proof E&T for inland navigation crew members throughout the EU, where certificates granted are recognised on a European level, and where greening, atomisation and digitalisation as well as communication on a European level are laid down in the E&T programmes.



ANNEX 1 LIST OF RELEVANT DIDACTICAL MATERIALS

No.	Project name	Didactical materials			Link	Remarks
		Curriculum	Course manual	Other		
1.	NELI	-	River Information Services	-	http://www.neliproject.eu/neli/	Course manual provided in English language
2.	NELI	-	Inland Navigation and Ports	-	http://www.neliproject.eu/neli/	Course manual provided in English language
3.	NELI	-	Logistics	-	http://www.neliproject.eu/neli/	Course manual provided in English language
4.	NELI	-	Ship manoeuvring for inland convoy	-	http://e-learning-base.romtc.ro/ines_danube/ilias.php?baseClass=ilrepositorygui&reloadpublic=1&cmd=frameset&ref_id=1	Course manual provided in English language. The document can be accessed with user and password, using the option <i>Register</i>
5.	EWITA	-	-	Storyboards for e-learning: -Basic level -Ports and terminals -Market & Organization -Intermodal Inland Navigation -Inland Vessels -Waterway	http://ines-danube.info/goto.php?target=pg_1931_1087	Materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR languages
6.	Danube SKILLS	Safety practices for emergency situations during ship	Safety Practices for emergency situations during ship operation-course	-Course Notes -PPT presentation	http://www.infodanube.ro/proiecte/SAFETY%20OF%20WORK%20COMPENDIUM.pdf	Course curriculum and course compendium were design for personnel at the Operational level and are provided in English language.



		operation-course curriculum for OL	compendium for OL			Course notes are in English language and are translated in RO, RS, DE, BG, HR, SK and HU languages, as well. The materials can be downloaded either free or on request.
7.	Danube SKILLS	Human resource management and social responsibility on board-course curriculum for ML	Human resource management and social responsibility on board- Course compendium for ML	-Course Notes -PPT presentation	http://www.infodanube.ro/proiecte/HumanResourcesCOMPENDIUM.pdf	Course curriculum and course compendium were design for the personnel at the Management level and are provided in English language. Course notes are in English language and are translated in RO, RS, DE, BG, HR, SK and HU languages, as well. The materials can be downloaded either free or on request.
8.	Smart-Qu@lification	Didactic annual planning and framework curriculum	E-Learning Course: 'VHF Inland Navigation Radio' Handout: Basic Knowledge for VHF Inland Navigation Radio		https://sbkr.moodleschule.de/mod/forum/discuss.php?id=46	Course manual and e-learning material provided in German language only, elaborated by DST/BdB.
9.	Smart-Qu@lification	Didactic annual planning and framework curriculum	E-Learning Course: Handout 'Radar Basics' Radar settings - Short description (Using Radar at		https://sbkr.moodleschule.de/mod/forum/discuss.php?id=69	Course manual and e-learning material provided in German language only, elaborated by DST/BdB.



			SANDRA, Duisburg - full mission bridge simulator)			
10.	Smart-Qu@lification	Didactic annual planning and framework curriculum	E-learning Course: 'Leak Prevention in inland navigation'		https://sbkr.moodleschule.de/mod/forum/discuss.php?d=72	Course manual and e-learning material provided in German language only, elaborated by DST/BdB.
11.	Ler(n)ende Euregio	Didactic annual planning and framework curriculum (for language lessons)	Multilingual communication (English, Dutch, French and German)	App: LE SINP (Ler(n)ende Euregio - Standard Inland Navigation Communication Phrases)	http://www.lerende-euregio.com/de	Google Play (Android) or Apple App Store (IOS) Schiffer-BK RHEIN/ Quaida GmbH Standard accepted by CESNI/CCR Police committee
12.	EWita (Marco-Polo Programme)	e-learning platform for several aspects of inland navigation on the Danube and Rhine/Maas/Schelde (RMS)	E-Learning Course: different aspects of inland navigation on the Danube and Rhine/Maas/Schelde (RMS) e.g. waterways, types of vessels, RIS, ...		http://www.ines-danube.info and http://www.inesrms.info	In several Languages (German, English, ...)
13.	TTIET (LDV Programme)	Book: Train the Trainer Course for Inland	Book: Train the Trainer Course for Inland Navigation Simulator Training	Training Facilities: SANDRA – Full mission Bridge Simulator, Duisburg	https://www.edinna.eu/projects/	In English language



		Navigation Simulator Training				
14.	CMINET (LDV Programme)	Didactic annual planning and framework curriculum (partly)	Book: Course Manuals for Inland Navigation Education and Training		https://www.edinna.eu/projects/	In English language
15.	MOK			E-learning for MAH students on OL. For topics see below *	https://mok.anewspring.nl (login available)	A big part is already translated in English. It needs to be checked with the Competence tables Also some animations available for blended
16.	EWITA			E-learning platform basics Inland Shipping Rhine, Maas, Scheldt	e-learning for MAH students http://www.inesrms.info/	Available in Dutch, English German. Lot of flash animation and a bit out-dated, But parts are reusable.
17.	PROMINENT	-	Assessment of the effectiveness of the use of simulations with respect to education, assessment and examination	WP4. Digital education tools	http://www.prominent-iwt.eu/wp4-digital-education-tools/	Course materials that can be downloaded from each work package. Course materials are in English language, and are elaborated by UCV.
18.	PROMINENT	-	Digital tools to support the further			Deliverable document



			integration of IWT knowledge to general logistics education and training			
19.	PROMINENT	-	Prototype of digital education and training tools			Deliverable document
20.	IWTCOMP	-	-	Best practices manual in competency based training and assessment	https://www.edinna.eu/projects	Free access of the intellectual output on the project website or on request. The materials are in English.
21.	IWTCOMP	-	Didactic manual and pilot training course	-	https://www.edinna.eu/projects	Free access of the intellectual output on the project website or on request. The materials are in English.
22.	(Internal act: International Sava River Basin Commission)	N/A	Manual on the Sava River Navigation	-	http://www.savacommission.org/dms/docs/dokumenti/documents_publications/publications/navigation_publication/prirucnik_za_plovidbu_na_rijeci_savi/manual_on_the_sava_river_navigation.pdf	Manual is provided in English, Croatian and Serbian (Cyrillic) language.
23.	(Internal act: International Sava River Basin Commission)	N/A	Manual for the Radiotelephone Service in the Sava River Basin	-	http://www.savacommission.org/decision	Manual is provided in English and Croatian language
24.	HINT	-	-	Storyboards for e-learning: LNG	http://ines-danube.info/goto.php?target=st_2332	
25.	LNG	Curricula for	Lesson materials	-	D 423-4-5-9_Curricula_LNG terminal_LNG	Curricula are provided in English



	Masterplan	bunkering personnel and staff, for OL and ML and where appropriate for support level			bunkering_LNG as fuel_Logistics_v1.0 FINAL_2014-7-23 D 423_Lessons material for bunkering personnel_NL_v1.0 FINAL_2015-2-25 D 423_Lessons material for bunkering personnel_RO_v1.0 FINAL_2015-2-25 D 423_Lessons material for bunkering personnel_EN_v1.0 FINAL_2015-9-30	language, and lesson materials in Dutch, Romanian and English languages. The materials can be downloaded either free or on request.
26.	LNG Masterplan	Curricula for terminal personnel and staff for OL and ML and where appropriate for support level.	Lesson materials	-	D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0 FINAL_2014-7-23 D 424_Lessons material for LNG terminal personnel_NL_v1.0 FINAL_2015-10-9 D 424_Lessons material for LNG terminal personnel_RO_v1.0 FINAL_2015-10-9 D 424_Lessons material for LNG terminal personnel_EN_v1.0 FINAL_2015-12-31	Curricula are provided in English language, and lesson materials in Dutch, Romanian and English languages. The materials can be downloaded either free or on request.
27.	LNG Masterplan	Curricula for inland navigation crew members for use LNG as a fuel	Lesson materials	-	D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0 FINAL_2014-7-23 D 425_Lessons material for crew - LNG as fuel_STC Group NL_v1.0 FINAL_2014-10-10 D 425_Lessons material for crew - LNG as fuel_Ceronav RO_v1.0 FINAL_2014-10-10 D 425_Lessons material for crew - LNG as fuel_UniCraiova RO_v1.0 FINAL_2014-10-10 D 425_Lessons material for crew - LNG as fuel_STC Group EN_v1.0 FINAL_2015-2-20 D 425_Lessons material for crew - LNG as fuel_Ceronav EN_v1.0 FINAL_2015-2-20	Curricula are provided in English language, and lesson materials in Dutch, Romanian and English languages. The materials can be downloaded either free or on request.
28.	LNG Masterplan	Curricula for inland navigation	Lesson materials	-	D 426_Curricula for crew - LNG as cargo_v1.0_FINAL_2015-1-28 D 426_Lessons material for crew - LNG as	Curricula are provided in English language, and lesson materials in Dutch, Romanian and English



		crew members (OL and ML) for use of LNG as a cargo			cargo_NL_v1.0_FINAL_2015-1-28 D 426_Lessons material for crew - LNG as cargo_RO_v1.0_FINAL_2015-1-28 D 426_Lessons material for crew - LNG as cargo_EN_v1.0_FINAL_2015-6-30	languages. The materials can be downloaded either free or on request.
29.	LNG Masterplan	Curricula for inspectors from competent authorities as well as for company personnel and staff, for OL and ML and where appropriate for support level.	Lesson materials	-	D 428_Curricula for competent authorities and company personnel_v1.0_FINAL_2015-7-29 D 428_Lessons material for competent authorities and company personnel_NL_v1.0_FINAL_2015-10-9 D 428_Lessons material for competent authorities and company personnel_EN_v1.0_FINAL_2015-12-31	Curricula are provided in English language, and lesson materials in Dutch and English languages. The materials can be downloaded either free or on request.
30.	LNG Masterplan	-	-	Delivery of pilot simulations or simulators, e-learning and practical training tools	D 427_Pilot simulations_simulators_e-learning_and_practical training tools_v1.0_FINAL_2015-12-31	Deliverable document available in English language.
31.	LNG Masterplan	Curricula for students focusing on logistics	Lesson materials		D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0_2014-7-23 D 429_Curriculum for students of logistics_v4.0_FINAL_2015-8-4 D 429_Lessons material for students of logistics_DE_v4.0_FINAL_2015-8-4	Curricula are provided in English language, and lesson materials in German languages. The materials can be downloaded either free or on request.



32.	LNG Masterplan	-	-	Status Quo in the LNG training and education, identification of gaps and specification of requirements	http://lngmasterplan.eu/images/D_422_Status_q_uo_LNG_training_and_education_v1.0_FINAL_2014-3-31.pdf	
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ANNEX 2 COMPARATIVE ANALYSIS OF COURSE CURRICULA

No.	Project name	Didactical materials		Link	Remarks	CESNI Standards of competence OL and ML
		Curricula	Other			
1.	Danube SKILLS	Safety practices for emergency situations during ship operation- - course curriculum for OL	-	http://www.infodanube.ro/proiecte/SAFETY%20OF%20WORK%20COMPENDIUM.pdf	Course Curriculum provided in EN,RO,RS,BG,HR,HU, SK and DE languages The materials can be downloaded either free or on request.	OL 7& ML 7-HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION
2.	Danube SKILLS	Human resource management and social responsibility on board- course curriculum for ML		http://www.infodanube.ro/proiecte/HumanResourcesCOMPENDIUM.pdf	Course Curriculum provided in English language	OL 6 & ML 6- COMMUNICATION
3.	Smart-Qu@lification	Didactic annual planning and framework curriculum- VHF inland navigation Radio	-	https://sbkr.moodleschule.de/mod/forum/discuss.php?id=46	Didactic annual planning and framework curriculum provided in German language only	OL 1 & ML 1- NAVIGATION
4.	Smart-Qu@lification	Didactic annual planning and framework curriculum- Radar	-	https://sbkr.moodleschule.de/mod/forum/discuss.php?id=69	Didactic annual planning and framework curriculum provided in German language only	OL 1 & ML 1- NAVIGATION
5.	Smart-Qu@lification	Didactic annual planning and framework curriculum- Leak prevention		https://sbkr.moodleschule.de/mod/forum/discuss.php?id=72	Didactic annual planning and framework curriculum provided in German language only	OL 7& ML 7-HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION
6.	Ler(n)ende Euregio	Didactic annual planning and framework curriculum (for language lessons)	-	http://www.lerende-euregio.com/de	Didactic annual planning and framework curriculum provided in German	OL 6 & ML 6- COMMUNICATION



					language only	
7.	LNG Masterplan	Curricula for bunkering personnel and staff, for OL and ML and where appropriate for support level	-	D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0 FINAL_2014-7-23	The curricula are provided in English language and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
8.	LNG Masterplan	Curricula for terminal personnel and staff for OL and ML and where appropriate for support level.	-	D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0 FINAL_2014-7-23	The curricula are provided in English language and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
9.	LNG Masterplan	Curricula for inland navigation crew members for use LNG as a fuel	-	D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0 FINAL_2014-7-23	The curricula are provided in English language and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
10.	LNG Masterplan	Curricula for inland navigation crew members (OL and ML) for use of LNG as a cargo	-	D 426_Curricula for crew - LNG as cargo_v1.0_FINAL_2015-1-28	The curricula are provided in English language and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
11.	LNG Masterplan	Curricula for inspectors from competent authorities as well as for company personnel and staff, for OL and ML and where appropriate for support level.	-	D 428_Curricula for competent authorities and company personnel_v1.0_FINAL_2015-7-29	The curricula are provided in English language and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
12.	LNG Masterplan	Curricula for students focusing on logistics	-	D 423-4-5-9_Curricula_LNG terminal_LNG bunkering_LNG as fuel_Logistics_v1.0_2014-7-23 D 429_Curriculum for students of logistics_v4.0_FINAL_2015-8-4	The curricula are provided in English language and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT



ANNEX 3 COMPARATIVE ANALYSIS OF COURSE MANUALS

No.	Project name	Didactical materials		Link	Remarks	CESNI Standards of competence OL and ML
		Course manual	Other			
1.	NELI	River Information Services	-	http://www.neliproject.eu/neli/	Course manual provided in English language	OL 1 & ML 1- NAVIGATION
2.	NELI	Inland Navigation and Ports	-	http://www.neliproject.eu/neli/	Course manual provided in English language	OL 1 & ML 1- NAVIGATION
3.	NELI	Logistics	-	http://www.neliproject.eu/neli/	Course manual provided in English language	OL 3 & ML 3- CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT
4.	NELI	Ship manoeuvring for inland convoy	-	http://e-learning-base.romtc.ro/ines_danube/ilias.php?baseClass=ilrepositorygui&reloadpublic=1&cmd=frameset&ref_id=1	Course manual provided in English language. The document can be accessed with user and password, using the option <i>Register</i>	OL 1 & ML 1- NAVIGATION
5.	EWITA	-	Storyboards for e-learning: Basic level	http://ines-danube.info/goto.php?target=pg_1931_1087	Lesson materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR, and HU languages	OL 1 & ML 1- NAVIGATION
			Ports and terminals	http://ines-danube.info/goto.php?target=pg_1931_1087	Materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR, and HU languages	OL 1 & ML 1- NAVIGATION



			Market & Organization	http://ines-danube.info/goto.php?target=pg_1931_1087	Materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR, and HU languages	OL 3 & ML 3- CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT
			Intermodal Inland Navigation		Materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR, and HU languages	OL 3 & ML 3- CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT
			-Inland Vessels		Materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR, and HU languages	OL 2 & ML 2- - OPERATION OF THE CRAFT
			-Waterway		Materials are provided in English language and during NELI project were translated in: RO, RS, SK, BG, HR, and HU languages	OL 1 & ML 1- NAVIGATION
6.	Danube SKILLS	Safety Practices for emergency situations during ship operation- OL-course compendium	-Course Notes -PPT presentations	http://www.infodanube.ro/proiecte/SAFETY%20OF%20WORK%20COMPENDIUM.pdf	Course compendium was design for personnel at the Operational level and is provided in English language. Course notes are in English language and translated in RO, RS, DE, BG, HR, SK and HU	OL 7& ML 7-HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION



					languages.	
7.	Danube SKILLS	Human resource management and social responsibility on board- ML- Course compendium	-Course Notes -PPT presentations	http://www.infodanube.ro/proiecte/HumanResourcesCOMPENDIUM.pdf	Course compendium was design for personnel at the Management level and is provided in English language. Course notes are in English language and are translated in RO, RS, DE, BG, HR, SK and HU languages.	OL 6 & ML 6- COMMUNICATION
8.	Smart-Qu@lification	-	E-Learning Course: 'VHF Inland Navigation Radio' = Handout: Basic Knowledge for VHF Inland Navigation Radio	https://sbkr.moodleschule.de/mod/forum/discuss.php?id=46	Course manual and e-learning material provided in German language only.	OL 6 & ML 6- COMMUNICATION
9.	Smart-Qu@lification	-	E-Learning Course: Handout 'Radar Basics' Radar settings - Short description (Using Radar at SANDRA, Duisburg - full mission bridge simulator)	https://sbkr.moodleschule.de/mod/forum/discuss.php?id=69	Course manual and e-learning material provided in German language only.	OL 1 & ML 1- NAVIGATION
10.	Smart-Qu@lification	-	E-learning Course: Leak Prevention in inland navigation'	https://sbkr.moodleschule.de/mod/forum/discuss.php?id=72	Course manual and e-learning material provided in German language only.	OL 7 & ML 7-HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION



11.	Ler(n)en de Euregio	Multilingual communication (English, Dutch, French and German)	App: LE SINP (Ler(n)ende Euregio - Standard Inland Navigation Communication Phrases)	http://www.lerende-euregio.com/de	Google Play (Android) or Apple App Store (IOS) Standard accepted by CESNI/CCR Police committee.	OL 6 & ML 6- COMMUNICATION
12.	eWita		E-Learning Course: different aspects of inland navigation on the Danube and Rhine/Maas/Schelde (RMS) e.g. waterways, types of vessels, RIS.	http://www.ines-danube.info and http://www.inesrms.info	In several Languages (DE, EN,RO,BG,RS,SK,HU, HR)	OL 1 & ML 1- NAVIGATION OL 2& ML 2- OPERATION OF THE CRAFT
13.	TTIET	Book: Train the Trainer Course for Inland Navigation Simulator Training	Training Facilities: SANDRA – Full mission Bridge Simulator, Duisburg	https://www.edinna.eu/projects/	In English language	OL 1 & ML 1- NAVIGATION
14.	CMINET	Book: Course Manuals for Inland Navigation Education and Training		https://www.edinna.eu/projects/	In English language	OL 1 & ML 1- NAVIGATION
15.	MOK	-	E-learning for our students on OL. The program MOK covers almost all the topics related to the Competence tables column 1 and 2: OL 1: Navigation:	https://mok.anewspring.nl (login available)	A big part is already translated in English. It needs to be checked with the Competence tables Also some animations	OL 1 & ML 1- NAVIGATION OL 2 & ML 2-OPERATION OF THE CRAFT OL 3 & ML 3- CARGO HANDLING (<i>except for passenger transport</i>) OL 4 & ML 4- MARINE ENGINEERING AND



			<p>OL 2: Operation of the Craft: OL 3: Cargo handling (except for passenger transport) OL 4: Marine engineering and electrical, electronic and control engineering OL 5: Maintenance and Repair OL 6: Communication OL 7: Health and safety and environmental protection</p>		available for blended	<p>ELECTRICAL, ELECTRONIC AND CONTROL ENGINEERING OL 5 & ML 5- MAINTENANCE AND REPAIR OL 6 & ML 6- COMMUNICATION OL 7 & ML 7- HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION</p>
16.	EWITA		<p>E-learning platform basics Inland Shipping Rhine, Maas, Scheldt, with the following topics:</p>	http://www.inesrms.info/	<p>Available in Dutch, English and German languages. Lot of flash animation and a bit out-dated, But parts are reusable.</p>	
			01 Topography			OL 1 & ML 1- NAVIGATION
			02 Capacity of the waterways			OL 1 & ML 1- NAVIGATION
			03 Developments in the waterways			OL 1 & ML 1- NAVIGATION
			04 Harbour			OL 1 & ML 1- NAVIGATION
			05 Ships			OL 2 & ML 2-OPERATION OF



						THE CRAFT
			06 Organisation of inland shipping market			OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
			07 Information and Communication systems and technology			OL 6 & ML 6- COMMUNICATION
			08 Intermodal transport			OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
			09 Access to inland shipping market			OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
17.	HINT	-		http://www.hintproject.net/getpage.php?page=iwt-course-materials	Learning Modules provided in English language.	
			Module I. Inland ports			OL 1 & ML 1- NAVIGATION
			Module II. Waterways			OL 1 & ML 1- NAVIGATION
			Module III. Navigation Technologies			OL 1 & ML 1- NAVIGATION
			Module IV. Laws on the Danube			OL 1 & ML 1- NAVIGATION
			Module V. IWT and the environmental protection			OL 7& ML 7- HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION



18.	HINT	-		http://www.hintproject.net/getpage.php?page=iwt-course-materials	Lesson materials provided in English language.	
			Part 1. Overview Part 2. Tracking and tracing via AIS Part 3. Inland ECDIS Part 4. Fairway information services Part 5. Applied services and future of RIS			OL 1 & ML 1- NAVIGATION
19.	PROMINENT	Assessment of the effectiveness of the use of simulations with respect to education, assessment and examination	WP4. Digital education tools	http://www.prominent-iwt.eu/wp4-digital-education-tools/	Course materials that can be downloaded from each work package. Course materials are in English language.	OL 1 & ML 1- NAVIGATION
20.	PROMINENT	Digital tools to support the further integration of IWT knowledge to general logistics education and training				OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
21.	PROMINENT	Prototype of digital education and training tools				OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
22.	IWTCOMP	-	Best practices manual in competency based	https://www.edinna.eu/projects	Free access of the intellectual output on the project website or on	OL 1 & ML 1- NAVIGATION OL 2 & ML 2-OPERATION OF THE CRAFT



			training and assessment		request. The materials are in English.	OL 3 & ML 3- CARGO HANDLING (<i>except for passenger transport</i>) OL 4 & ML 4- MARINE ENGINEERING AND ELECTRICAL, ELECTRONIC AND CONTROL ENGINEERING OL 5 & ML 5- MAINTENANCE AND REPAIR OL 6 & ML 6- COMMUNICATION OL 7 & ML 7- HEALTH AND SAFETY AND ENVIRONMENTAL PROTECTION
23.	IWTCOM P	Didactic manual and pilot training course	-	https://www.edinna.eu/projects	Free access of the intellectual output on the project website or on request. The materials are in English.	OL 1 & ML 1- NAVIGATION OL 2 & ML 2-OPERATION OF THE CRAFT OL 3 & ML 3- CARGO HANDLING (<i>except for passenger transport</i>) OL 4 & ML 4- MARINE ENGINEERING AND ELECTRICAL, ELECTRONIC AND CONTROL ENGINEERING OL 5 & ML 5- MAINTENANCE AND REPAIR OL 6 & ML 6- COMMUNICATION OL 7 & ML 7- HEALTH AND SAFETY AND



						ENVIRONMENTAL PROTECTION
24.	(Internal act: International Sava River Basin Commission)	Manual on the Sava River Navigation	-	http://www.savacommission.org/dms/docs/dokumenti/documents_publications/publications/navigation_publication/prirucnik_za_plovidbu_na_rijeci_savi/manual_on_the_sava_river_navigation.pdf	Manual is provided in English, Croatian and Serbian (Cyrillic) languages.	OL 1 & ML 1- NAVIGATION
25.	(Internal act: International Sava River Basin Commission)	Manual for the Radiotelephone Service in the Sava River Basin	-	http://www.savacommission.org/decision	Manual is provided in English and Croatian languages.	OL 6 & ML 6 - COMMUNICATION
26.	HINT	-	Storyboards for e-learning: LNG	http://ines-danube.info/goto.php?target=st_2332		OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
27.	LNG Masterplan	Lesson materials for bunkering personnel and staff, for OL and ML and where appropriate for support level (NL, EN, RO)	-	D 423_Lessons material for bunkering personnel_NL_v1.0 FINAL_2015-2-25 D 423_Lessons material for bunkering personnel_RO_v1.0 FINAL_2015-2-25 D 423_Lessons material for bunkering personnel_EN_v1.0 FINAL_2015-9-30	Lesson materials are provided in Dutch, Romanian and English languages, and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
28.	LNG Masterplan	Lessons material for terminal personnel and staff (OL and ML and where	-	D 424_Lessons material for LNG terminal personnel_NL_v1.0 FINAL_2015-10-9 D 424_Lessons material for LNG terminal personnel_RO_v1.0 FINAL_2015-10-9 D 424_Lessons material for LNG terminal	Lesson materials are provided in Dutch, Romanian and English languages, and can be downloaded either free or	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT



		appropriate for support level)		personnel_EN_v1.0 FINAL_2015-12-31	on request.	
29.	LNG Masterplan	Lessons and training material for inland navigation crew members for use of LNG as a fuel	-	D 425_Lessons material for crew - LNG as fuel_STC Group NL_v1.0 FINAL_2014-10-10 D 425_Lessons material for crew - LNG as fuel_Ceronav RO_v1.0 FINAL_2014-10-10 D 425_Lessons material for crew - LNG as fuel_UniCraiova RO_v1.0 FINAL_2014-10-10 D 425_Lessons material for crew - LNG as fuel_STC Group EN_v1.0 FINAL_2015-2-20 D 425_Lessons material for crew - LNG as fuel_Ceronav EN_v1.0 FINAL_2015-2-20	Lesson materials are provided in Dutch, Romanian and English languages, and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING AND PASSENGER TRANSPORT
30.	LNG Masterplan	Lessons and training material for inland navigation crew members (OL and ML) for use of LNG as a cargo	-	D 426_Lessons material for crew - LNG as cargo_NL_v1.0_FINAL_2015-1-28 D 426_Lessons material for crew - LNG as cargo_RO_v1.0_FINAL_2015-1-28 D 426_Lessons material for crew - LNG as cargo_EN_v1.0_FINAL_2015-6-30	Lesson materials are provided in Dutch, Romanian and English languages, and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT
31.	LNG Masterplan	Lesson materials for inspectors from competent authorities as well as for company personnel and staff, for OL and ML and where appropriate for support level.	-	D 428_Lessons material for competent authorities and company personnel_NL_v1.0_FINAL_2015-10-9 D 428_Lessons material for competent authorities and company personnel_EN_v1.0_FINAL_2015-12-31	Lesson materials are provided in Dutch, Romanian and English languages, and can be downloaded either free or on request.	OL 3 & ML 3- CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT



32.	LNG Masterplan	-	Pilot simulations or simulators, e-learning and practical training tools	http://lngmasterplan.eu/images/D_427_Pilot_simulations_simulators_e-learning_and_practical_training_tools_v1.0_FINAL_2015-12-31.pdf		
33.	LNG Masterplan	-	Status Quo in the LNG training and education, identification of gaps and specification of requirements	http://lngmasterplan.eu/images/D_422_Status_quo_LNG_training_and_education_v1.0_FINAL_2014-3-31.pdf		OL 3 & ML 3 - CARGO HANDLING, STOWAGE AND PASSENGER TRANSPORT