COURSE MANUAL

OPERATION OF THE CRAFT

OPERATIONAL LEVEL

PROJECT: COMPETING
PROJECT NO: 601165-EPP-1-2018-1-NL-EPPKA2-SSA
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PREFACE

To assist education and training entities to meet the requirements of the Standards of competence for inland navigation personnel, required by Directive (EU) 2017/2397 on the recognition of professional qualifications in inland navigation, and Delegated Directive (EU) 2020/12 supplementing Directive (EU) 2017/2397 as regards the standards of competences and corresponding knowledge and skills, for the practical examinations, for the approval of simulators and for medical fitness, the transnational Course Manual on Operation of the Craft for Operational Level Personnel was developed.

This Course Manual will be a useful transnational training tool for conducting the 'Train the Trainer' session and is intended to assist education and training providers and their teaching staff in organising and introducing new education & training programmes, or in enhancing, updating and supplementing existing didactical materials with the ultimate end results of raising quality and effectiveness of the education & training programmes.

Since education & training systems as well as the cultural background of inland navigation topics differ considerably from one country to another, the Course Manual on operation of the craft has been designed so as to support the preparation, organisation and planning of effective teaching and training and to be used as a part of the quality assurance of the education and training institutes.

Technical content and levels of knowledge and abilities are in line with the applicable Delegated Directive (EU) 2020/12 supplementing Directive (EU) 2017/2397 as regards the standards of competences and corresponding knowledge and skills, for the practical examinations, for the approval of simulators and for medical fitness, being an essential tool for crew members at Operational Level, to assist the management of the craft in controlling the operation of the craft and in the care of persons aboard and to be able to use the equipment of the craft.

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1. GENERAL INFORMATION

1	**Aim**	Provide training to assist in the implementation of Directive (EU) 2017/2397 on the recognition of professional qualifications in inland navigation and ES-QIN - Standards of competence – Operation of the Craft at Operational Level.
2	**Objective**	Provide training and practical guidance for trainees in order to be able to assist the management of the craft in situations of manoeuvring and handling a craft on inland waterways.
3	**Entry standards**	See Directive (EU) 2017/2397 - Annex 1.
4	**Course certificate**	On successful completion of the course, a document may be issued, stating that the holder graduated this learning module.
5	**Course intake limitation**	Admittance may be limited by the capacity of the educational infrastructure used for this learning module (i.e. in the simulation room max. 4 trainees, on board of the real/training craft 12 trainees, etc.).
6	**Staff requirements**	The trainer should meet the requirements of Directive(EU) 2017/2397, Art. 18.
7	**Training facilities, equipment and teaching aids**	For the theoretical part of the course a classroom is required with video presentation equipment, teaching aids, etc. For the practical part of the course a real/training craft or full mission ship-handling simulators are mandatory.
8	**Learning outcomes**	The boatman shall be able to assist the management of the craft in controlling the operation of the craft and in the care of persons on board and be able to use the equipment of the craft. At the end of the course the trainee shall be able to: • Distinguish various types of craft; • Apply knowledge of the construction of inland waterway craft and their behaviour in water, especially in terms of stability and strength; • Apply knowledge of the craft's structural parts and identify the parts by name and function; • Apply knowledge of the craft's watertight integrity; • Apply knowledge of the documentation required for the craft's operation; • Use anchors and handle anchor winches; • Use deck equipment and lifting devices; • Use equipment specific to passenger vessels.
9	**Assessment & evaluation**	Minimum requirements for assessment & evaluation of the trainees for graduating from the learning module (i.e. minimum score for theoretical evaluation, for practical evaluation, etc.). I.e. Online training record book as a pathway for the course.

2. INSTRUCTOR MANUAL

This instructor manual provides guidance on the material that is to be presented during the Operation of the Craft Course Operational Level, and has been arranged under the eleven Learning Outcomes (competences) identified in the course outline. The reference material indicated may be supplemented by additional texts or material at the discretion of the instructor.

The course outline and provisional timetable also provide guidance on the time allocation for the course, because the time actually taken for each subject area may vary, especially in respect of time allocated to practical activities. The detailed teaching syllabus must be carefully studied and appropriate lesson plans or lecture notes compiled. A template of a lesson plan is presented under 2.1.

Each lesson should commence with a statement of the learning outcomes it is intended to achieve. At the end of each lesson, the participants should be told which associated portions of the reference material they should read and any activity they should undertake. Questions arising from such readings and activities must be given priority at an appropriate time.

The presentation of the various subject areas should be done in such a way that those taking part in the course are involved in an interactive participation during the lessons and learning process. Questions from the course participants should be encouraged, as should answers to such questions from other course participants.

The lessons should aim at conveying as much practical instruction and practice as possible to the participants, in order to develop their knowledge of and their skills in the tasks they will be expected to carry out. Course materials for additional study must be prepared and distributed online or offline if required.

2.1 Lesson plan

This lesson plan is just a template to give the teachers/ trainers a general idea on how to create their lessons for the various competences. This template can be used for every competence and adjusted as suitable for the institute to use.

2.2 Background material

Bibliographical materials, reference documents, and other didactical materials are presented in Annex 1 of this Course Manual.

2.3 Practical activities

This practical training links the theoretical content of the lessons to their practical use.

Competence 1.3.2 Ability to name the craft's structural parts and to describe their functions			
Learning objective			
Learning outcomes			
Required equipment			
Lesson structure			
Learning activity	Didactical method (ABC method)	Materials	Time

(Simulator) exercises
Practical exercises on board a (training) vessel or in an applicable IWT ship handling simulator can be undertaken in order to give the candidates the opportunity to deepen and enhance their theoretical knowledge into practical skills. This practical training links the theoretical content of the lessons to their practical use.

Case studies
Theoretical subjects are elaborated by the candidates autonomously in case studies. The candidate should deepen his or her knowledge in defined theoretical subjects by elaborating on a variety of facts and figures about this topic and present them in front of his or her classmates afterwards.

Discussions and reflection, interactive learning
Possible solutions to theoretical and practical subjects can be discussed within (parts of) the learning group. Different views and opinions on a defined subject are exchanged and discussed by the participants in order to broaden the view of the individual on this problem and show different possible solutions and their respective advantages and disadvantages. A discussion should be monitored and steered (stimulated or consolidated) if necessary, in order to secure that every participant actively participates.

Team work
Assignments can be individual as well as group assignments, depending on the objective. An individual assignment should stimulate and show the competences of the individual. In team work assignments the participants will have exposure to a wide range of experiences from quick problem-solving involving synergy to experiences which may relate to such items as interpersonal difficulties in a group setting. Depending on the purpose of the assignment the team should be defined in advance and the assignment and the rules of the working process, if there are any, should be communicated to the group in a very clear and formal manner. Annex 2 of this Course Manual presents a few practical scenarios which are useful for practical training and examination of inland navigation personnel.

The ETRB is the tool on which the students can be tested.

2.4 Classroom facilities and educational tools

For the theoretical part of the course, a classroom is required with video presentation equipment, teaching aids, etc.

For the practical part of the course, a real/training craft or full mission ship-handling simulators is/are mandatory.

2.5 Examination & assessment

According to Directive (EU) 2017/2397, Article 17, Assessment of competences:
The Commission shall adopt delegated acts in accordance with Article 31 to supplement this Directive by laying down the standards for competences and corresponding knowledge and skills in compliance with the essential requirements set out in Annex II.2. Member States shall ensure that persons who apply for the documents referred to in Articles 4, 5 and 6 demonstrate, where applicable, that they meet the standards of competence referred to in paragraph 1 of this Article by passing an examination that was organised:
(a) under the responsibility of an administrative authority in accordance with Article 18 or;
(b) as part of a training programme approved in accordance with Article 19.

The essential requirements set out in Annex II of Directive (EU) 2017/2397 for Operation of the Craft at Operational Level are:

In particular the Boatman shall be able to:

- Distinguish various types of craft;
- Apply knowledge of the construction of inland waterway craft and their behaviour in water, especially in terms of stability and strength;
- Apply knowledge of the craft's structural parts and identify the parts by name and function;
- Apply knowledge of the craft's watertight integrity;
- Apply knowledge of the documentation required for the craft's operation;
- Use anchors and handle anchor winches;
- Use deck equipment and lifting devices;
- Use equipment specific to passenger vessels.

To assess the progress and level of understanding of the students it is necessary to test the students in a formative way. The main goal of these tests is to give feedback to the student.

A standard for practical examination for Boatmen is developed in CESNI QP.

Examples of assessments for the individual competences for 'Operation of the craft' at Operational Level can be found on the Illias platform.

3. REGULATION AND CERTIFICATION

According to Chapter 2, Union Certificates of Qualification, Article 4, Obligation to carry a Union certificate of qualification as a deck crew member of Directive (EU) 2017/2397:

1. Member States shall ensure that deck crew members who navigate on Union inland waterways carry either a Union certificate of qualification as a deck crew member issued in accordance with Article 11 or a certificate recognised in accordance with Article 10(2) or (3).

2. For deck crew members other than boatmasters, the Union certificate of qualification and the service record book as referred to in Article 22 shall be presented in a single document.

3. By way of derogation from paragraph 1 of this Article, certificates held by persons involved in the operation of a craft, other than boatmasters, issued or recognised in accordance with Directive 2008/106/EC, and therefore in accordance with the STCW Convention, shall be valid on sea-going ships operating on inland waterways.

In Directive (EU) 2017/2397 in Annex I the minimum requirements for certification as a boatman are as follows:

Every applicant for a Union certificate of qualification shall:

(a)
- Be at least 17 years of age;
- Have completed an approved training programme, as referred to in Article 19, which was of a duration of at least two years, and which covered the standards of competence for the operational level set out in Annex II;
- Have accumulated navigation time of at least 90 days as part of this approved training programme;

or

(b)
- Be at least 18 years of age;
- Have passed an assessment of competence by an administrative authority as referred to in Article 18, to verify that the standards of competence for the operational level set out in Annex II are met;
- Have accumulated navigation time of at least 360 days, or have accumulated navigation time of at least 180 days if the applicant can also provide proof of work experience of at least 250 days that the applicant acquired on a sea-going ship as a member of the deck crew;

or

(c)
- Have a minimum of five years' work experience prior to the enrolment in an approved training programme, or have at least 500 days' work experience on a sea-going ship as a member of the deck crew prior to the enrolment in an approved training programme, or have completed any vocational training programme of at least three years' duration prior to the enrolment in an approved training programme;
- Have completed an approved training programme as referred to in Article 19, which was of a duration of at least nine months, and which covered the standards of competence for the operational level set out in Annex II;
- Have accumulated navigation time of at least 90 days as part of that approved training programme.

4. LESSON MATERIALS

The lesson materials referred to in this course manual are for inspiration and are free to use for the teachers of the educational institutes. The lesson materials will be available on the Edinna website (https://www.edinna.eu/).

As already mentioned in Chapter 2, background materials and practical activities can be found in Annex 1 and Annex 2 of this course manual. The background materials referenced can be used as additional documentation for the teachers to create their lessons and/or add more details. Annex 2 consists of suggestions and examples of exercises, case studies and/or practical scenarios.

Subject content of the Course Manual for Operation of the Craft - OL is presented in Annex 4 of this document, which is linked to the European Standard for Qualifications in Inland Navigation (ES-QIN), Part I, Chapter 1, Point 2 Operation of the Craft.[1]

COMPETENCE 2

Competences of Operation of the Craft - OL

The numbering of the chapters is in accordance with the Standards of Competence for the Operational Level - 2 Operation of the Craft.

OL 2 – Operation of the Craft

2.1 The boatman shall be able to assist the management of the craft in controlling the operation of the craft and in the care of the persons on board.

Competence	Knowledge and skills
1. The boatman shall be able to distinguish various types of craft.	1. Knowledge of most common types of craft including convoys used in European IWT and their corresponding construction, dimensions and tonnages. 2. Ability to explain the characteristics of the most common types of craft including convoys sailing in European IWT.
2. The boatman shall be able to apply knowledge of the construction of inland waterway craft and their behaviour in water, especially in terms of stability and strength.	1. Knowledge of the effects of the craft's movement in various circumstances caused by longitudinal and transversal stresses and of different loading conditions. 2. Ability to explain the craft's behaviour in different loading conditions, related to the craft's stability and strength.
3. The boatman shall be able to apply knowledge of the craft's structural parts and identify the parts by name and function.	1. Knowledge of the craft's structural elements with respect to the transport of different types of cargo and passengers, including the longitudinal and transversal structure and local reinforcements. 2. Ability to name the craft's structural parts and to describe their functions.
4. The boatman shall be able to apply knowledge of the craft's watertight integrity.	1. Knowledge of watertight integrity of IWT craft. 2. Ability to check watertight integrity.
5. The boatman shall be able to apply knowledge of the documentation required for the craft's operation.	1. Knowledge of the craft's obligatory documentation. 2. Ability to explain their importance in relation to (inter) national requirements and legislation.

1 https://www.cesni.eu/en/standards-and-explanatory-notices/#02

2.2 The boatmaster shall be able to use the equipment of the craft.

Competence	Knowledge and skills
1. The boatman shall be able to use anchors and handle anchor winches.	1. Knowledge of different kinds of anchors and anchor winches used on board craft. 2. Ability to name and recognise different kinds of anchors and anchor winches used on board craft and explain their specific use. 3. Ability to safely handle different types of anchors and anchor winches in various situations and conditions.
2. The boatman shall be able to use deck equipment and lifting devices.	1. Knowledge of equipment used on deck of craft such as (coupling) winches, hatches, lifting devices, car cranes, pipe systems, fire hoses, etc. 2. Ability to name and recognise deck equipment and lifting devices and explain their specific use. 3. Ability to safely handle deck equipment and lifting devices.
3. The boatman shall be able to use equipment specific to passenger vessels.	1. Knowledge of specific construction requirements, equipment and devices for passenger vessels. 2. Ability to name and recognise equipment used on board passenger vessels only and explain its specific use. 3. Ability to safely handle equipment used on board passenger vessels.

5. EFFECT ON THE HUMAN ELEMENT ON SUSTAINABLE SHIPPING

The human activities of deck crews on board of ships have a direct relation with sustainability in Inland Shipping. Due to the uniformisation of training and conformity with Directive (EU) 2017/2397 there will be an increase of navigational safety.

Different factors affect the development of sustainability in shipping, from regulatory to socio-economic factors, market related aspects and human factors, which all together contribute in different ways to the development of these three pillars. Since many different stakeholders are involved in the process, it follows that one of the main factors in supporting Sustainable Shipping is the understanding of all parties' concerns, needs and expectations.

The shipping industry is run by people, for people. People design ships, build them, own them, crew them, maintain them, repair them and salvage them. People regulate them, survey them, underwrite them and investigate them when things go wrong. While these people vary in all sorts of ways, they are all, nevertheless, people – with the same basic set of capabilities and vulnerabilities.

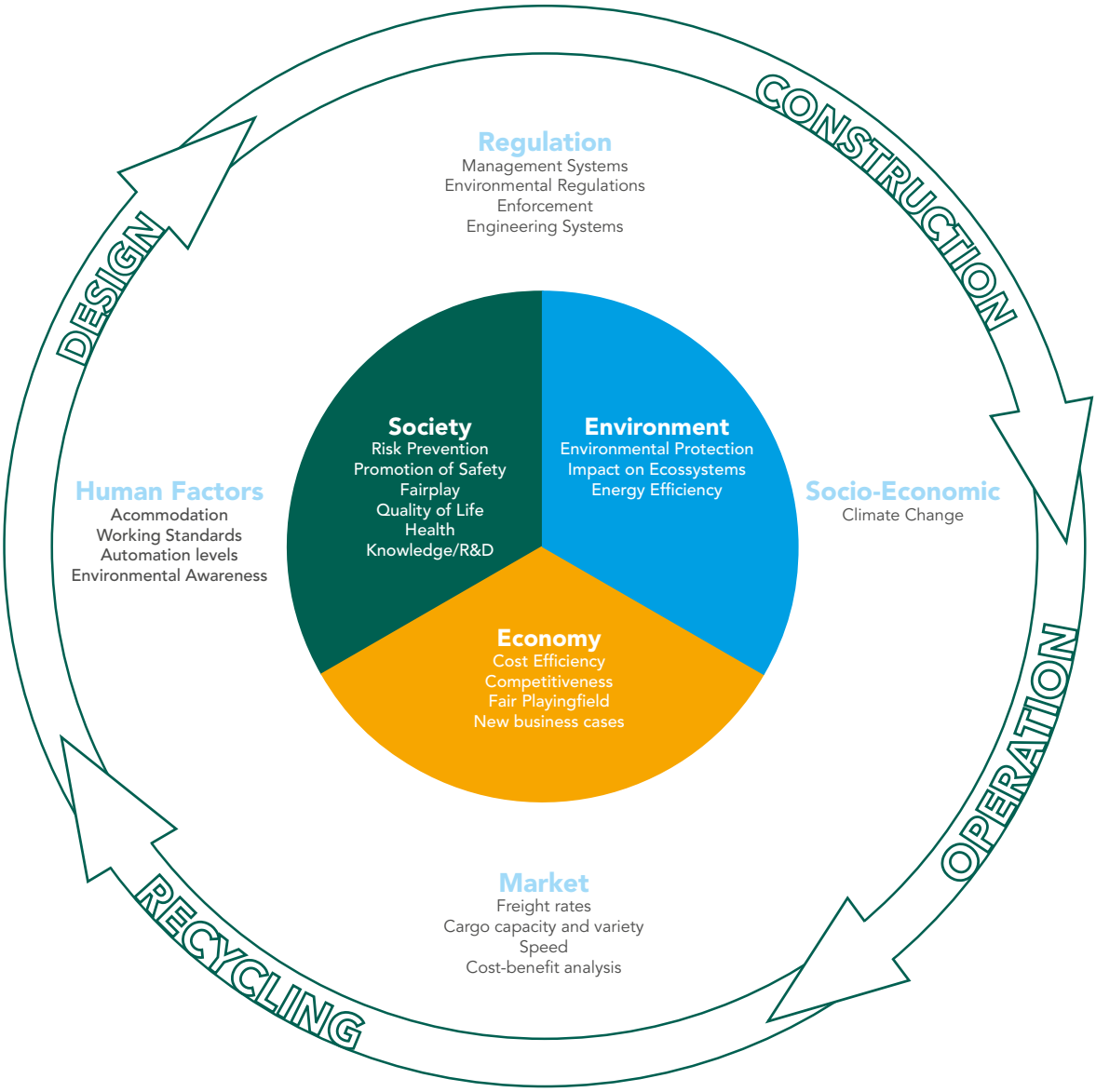

Figure 1 https://www.maintworld.com/R-D/Application-of-European-Qualification-Framework-EQF-in-Maintenance

Humans are not simply an element like the weather. They are at the very centre of the shipping enterprise. They are the secret of its successes and the victims of its failures. It is human nature that drives what happens every day at work – from the routine tasks of a ship's rating, right through to policy decisions.

The eight aspects of human nature are:

1. **People actively make sense of things**
   What's obvious to you may be far from apparent to somebody else. We explain how it is that most of what you see and understand is down to you and your expectations, rather than a response to "what's out there". The key problem is ensuring that the sense you make of things is enough for you to deal effectively with the reality of a continuously unfolding situation – a situation that you must also share with your colleagues.

2. **People take risks**
   Everybody takes risks all the time. In a world that is essentially uncertain, this is not only normal but inescapable. We explain how the human perception of risk is quite different from the probability with which events actually occur. The key problem is in ensuring that your own perception of risk maps well onto the world with which you are interacting.

3. **People make decisions**
   We explain the difference between how people think they make decisions and how they actually do it – and how experts' decision making is quite different from the way they did it when they were learning. We also explain why experience does not always lead to expertise, but that expertise always requires experience – and lots of it. The key problem is to understand what the components of a good decision are, and how to recognise when you are about to make a bad one.

4. **People make mistakes**
   A fundamental human strength depends directly on the ability to make, and then recover from, mistakes. Without error there can be no learning or development. And without these, organisations cannot achieve their goals. The important aspect is in ensuring that potentially harmful or expensive mistakes are prevented, caught or minimised before they have a chance to get far enough to matter. We explain how this depends as much on organisational culture as on individual competence.

5. **People get tired and stressed**
   We explain the causes and consequences of fatigue and stress, and explain what you can do to avoid them or lessen their impact. We also explain why workload turns out to be as much to do with your own experience, as the actual demands placed on you by the job.

6. **People learn and develop**
   People learn all the time. They can't stop themselves. The main problem is in ensuring that they learn the right things at the right time. People also have aspirations which can be managed by an organisation to further its own safety and profitability. However, in the absence of good management, people's aspirations will either be ignored or permitted to dominate – with potentially disastrous consequences either way. We explain the enormous power that effective, well-timed training can give to an organisation.

7. **People work with each other**
   Working with each other sometimes requires us to work as individuals in pursuit of our own goals, and at other times as members of a team with a common purpose. The key problem is in ensuring that we have effective 'people' skills, as well as technical task skills. We explain what these other skills are, why they are important and what can go wrong when they are absent.

8. **People communicate with each other**
   Successful communication involves the clear transmission of a message. We explain what has to happen for communication to be successful. We explain the responsibilities of both listener and messenger.

These are eight things we do that help to make us human. They are inescapable and will not go away. Understanding a little more about their nature, and how you can deal with them more effectively, will change your behaviour – and, maybe, that of those around you.

6. REFERENCE TO NQF, EQF, ECTS (REQUIREMENT FROM AF)

Nowadays, the European Union (EU) consists of 27 member states, and each state has a different education system. Therefore, the European Commission (EC) prepared the European Qualifications Framework (EQF) because it wanted to:

- Make national qualifications more readable across Europe;
- Harmonise national qualification systems of different countries in a common European reference framework;
- Promote workers' and learners' mobility between the countries of the EU and to facilitate their lifelong learning.

The EQF system has got eight reference levels (figure 2), each level describes what a learner has to know, understand and be able to do.[2]

Inland waterway transport (IWT) plays a relevant role in the EU in cargo exchange. Especially in the international scale on the network of the European waterways.

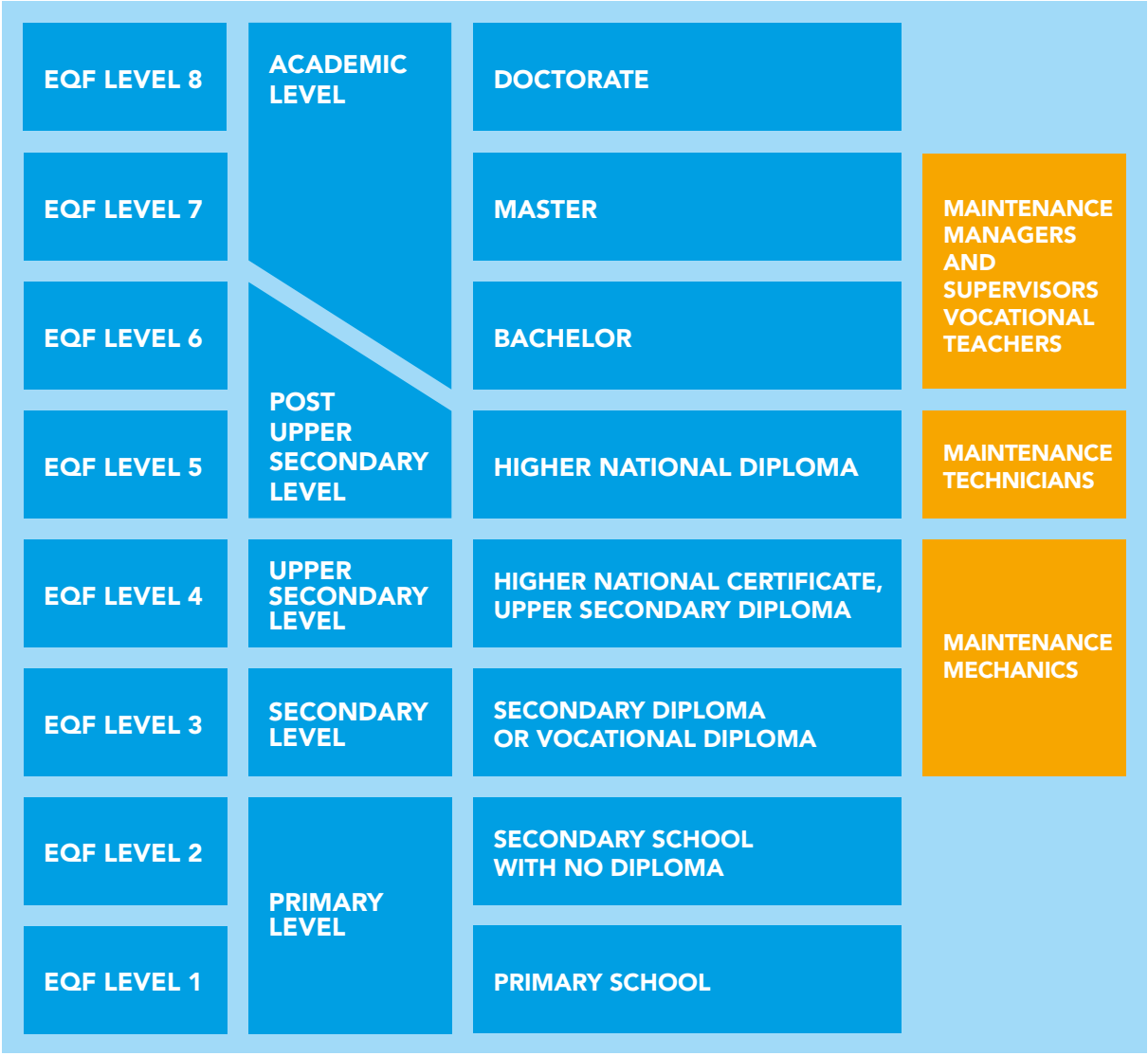

Figure 2 EQF levels compared with achieved education and maintenance personnel positions

2 http://www.maintworld.com/R-D/Application-of-European-Qualification-Framework-EQF-in-Maintenance, 1 December 2016

Germany	DQR Deutscher Qualifikationsrahmen für lebenslanges Lernen	www.dqr.de
The Netherlands	NLQF Nationaal Coördinatiepunt	www.nlqf.nl
Romania	anc Autoritatea Națională pentru Calificări	www.anc.edu.ro
Slovakia	TREXIMA PEOPLE . PROFESSION . PROSPERITY	www.treXima.sk/new

Table 1 Overview of national organisations in the EQF context

On one hand the transport is still more economical than any other mode of transport for many types of cargo, particularly such as bulk, general, liquid cargo and containers. On the other hand, it is the friendliest mode to the environment.

The field of IWT includes various job positions that are related to its segments such as vessels, ports and waterways. Project IWTCOMP focused on EQF and the job qualifications in IWT in 4 countries (Germany, the Netherlands, Romania and Slovakia) because each country uses a different education system. In all the countries involved in the project there are websites and organisations dedicated to the use of EQF in the national context. Below you will find an overview of these organisations.

The IWTCOMP project outlined the fact that regarding international sectoral qualifications there is (still) not an agreement on the approach and international process of comparing the EQF levels via the National QFs (NQFs). Some member states do not want to adjust their procedures and this means all member states all still have their own NQF procedure.

Slovakia used to have two vocational schools which prepared students for the job positions in IWT but they were closed because of low interest of young people to work in this field. Nowadays, the Transport Authority examines the candidates for lower job positions in IWT such as skipper, captains, boatmen (EQF 2 and 4). Before the exams it organises the courses for applicants. The exam has got oral and written forms and consists of various areas if IWT. The Department of Water Transport at the University of Zilina educates students for higher job positions (EQF 6, 7, 8) in IWT.

The curricula are approved by the Ministry of Education, Science, Research and Sport of the Slovak Republic and its control body (Accreditation Commission). They are prepared according to the requirements of practice and standards of higher education in Slovakia.

In Germany there is a combined system of education at school and in a shipping company ending in centralised exams held by the chamber of commerce. Both schools and companies have to follow the curricula, but they are not responsible for the exams. The exams consist of two parts, one focussing on knowledge and one focussing on the skills. Therefore both school and shipping company contribute to the education of the students enabling them to pass the centralised exams.

In Romania there are dedicated programmes for IWT boatman (EQF 2). There are vocational schools for boatmen in Galati and Orsova, offering courses for boatmen qualification.

In the Netherlands there are qualifications set for the different levels of education within the IWT sector. For each educational level there is a set of qualifications given by the national contact point in cooperation with the work field and educational institutes. The Netherlands government decided to place the Captain/Manager IWT qualification in NQF level 5 (EQF5), but in a later stage it was withdrawn and placed in NQF level 4 (EQF4).

In conclusion, although the EQF system in the field of inland water transport has been accepted in all EU countries, this EQF system is not used by all countries. This is due to the fact that some institutes have to focus on the professional competences based on national and international legislation. The curricula at schools, universities and training centres are prepared according to the international or national standards in the cooperation with the international or national authorities (the Rhine Commission, the Danube Commission, the Ministries of Education), shipping companies and other authorities that work in the field of IWT in the Rhine or Danube Regions.
It depends on the level of general education (higher or lower) per country.

ANNEX 1

Bibliographical materials, reference documents, didactical materials

- Directive (EU) 2017/2397 of the European Parliament and of the Council of 12 December 2017 on the recognition of professional qualifications in inland navigation and repealing Council Directives 91/672/EEC and 96/50/EC & Final drafts of competences and practical exams, 2017;
- ES-QIN, European Standard for Qualifications in Inland Navigation, CESNI 2019;
- Course Manuals for Inland Navigation ML. Example educational material; competence 1.1, 1.2, 1.3, 1.4, 1.5 (CMINET);
- Course Manuals for Inland Navigation ML. Example educational material; competence 1.6 (CMINET);
- Inland Navigation and Ports, NELI;
- Ship manoeuvring for inland convoy, NELI;
- Logistics course, NELI, 2011;
- RIS course, NELI;
- Train the Trainer course for Inland Navigation training, Leonardo da Vinci Program;
- Train the Trainer course Competency Based Training and Assessment Inland Waterway Transport Didactical manual, IWTCOMP, 2019;
- Manual on the Sava River Navigation, International Sava River Basin Commission, Zagreb 2018;
- Assessment of the effectiveness of the use of simulations with respect to education, assessment and examination, Prominent, July 2017;
- Digital tools to support the further integration of IWT knowledge to general logistics education and training, Prominent, July 2017;
- Prototype of digital education and training tools, Prominent, October 2017.

Online e-learning

- INeS: www.ines-danube.info / www.ines.info
- MOK: www.mok.anewspring.nl

ANNEX 2

Practical scenarios

Execution of a trip

You are to execute (part) of a journey as operational staff on an inland navigation simulator of on board a craft. To meet the requirements for a valid evaluation your journey must contain at least one passage through a lock or under a bridge.

During the examination, your evaluator will observe your performance. You will have to explain what you see and do and might get additional questions to test your operational skills.

Checklist for the execution of your trip

Checklist gathering relevant information prior to the departure

- Information about the weather;
- Information about currents and tides;
- Water levels;
- VHS Marine channels;
- VTS centre;
- FIS/NtS.

Checklist check-ups before leaving

- Route signalling;
- Cargo;
  - Stability;
  - Stowing;
  - Appendages (MTV);
  - Cover.

Checklist use of navigational equipment AIS, Inland ECDIS, VHF Marine Radio

- Switching on and adjusting correctly;
- Correct use and calibration;
- VHF Maritime radio communication while sailing and manoeuvring;
- AIS message current status.

Checklist sailing

- Steermanship;
- Use of stowage systems;
- Use of steering installation;
- Use of bow propeller;
- Following traffic regulations;
- Considering fairway and water levels;
- Considering wind and current.

Checklist general communication

- Use of correct nautical terminology;
- Communication with deck crew;
- Communication with harbour authorities;
- Communication with other vessels;
- Timing regarding the calling in of traffic information;
- Use and interpretation of the gathered information;
- Knowledge of procedures and communication in emergency situations.

Checklist mooring and anchoring

- Handling the own vessel and anticipating other uses;
- Correct execution of a manoeuvre;
- Speed while manoeuvring;
- Safety while manoeuvring;
- Taking into account factors such as wind and current.

Checklist safe sailing, preventing damage

- Sailing behaviour in relation to other vessels;
- Instructions to the crew;
- Approaching mooring places, locks and harbours;
- Use of relevant equipment.

Checklist response to problems during the trip

- Dealing with failures while sailing;
- Taking the necessary measurements;
- Instructions to the crew;
- Communication with quayside.

Checklist behaviour in emergency situations

- Taking adequate action;
- If necessary, quick but careful manoeuvring;
- Giving instructions to people on board;
- Use of emergency equipment;
- Leading a rescue operation;
- Alerting emergency and rescue services;
- Passing information to the authorities.

Checklist alternative alerts

- Knowledge of the emergency plan;
- Knowledge of emergency systems and their use;
- Raising the alarm in case of breakdown in communication;
- Instructions to people on board when leaving the vessel;
  - To the crew;
  - To other people on board.

Possible scenarios for the execution of the planned trip

Before leaving

You are leaving from a location without current, a large lock or from a large mooring place in a harbour. You prepare your vessel for departure.

You activate the AIS/Inland Ecdis before departure and adjust these navigational instruments correctly.

You gather the local navigational and itinerary information. You perform a final check of vessel and cargo.

Departure

You cast off the ropes. You communicate with the crew on deck, other vessels and the Vessel Traffic Service (VTS) or harbour authorities and/or lock operator. You start with a simple manoeuvre and sail for a short distance.

While sailing

You pass a bridge. You overtake other vessels. You cross vessels coming from the opposite direction. You need to enter a small lock.

Additional difficulties

You need to anticipate failing equipment or installations. You sail to a safe spot. You might have to anchor. It is possible that you need to cross the waterway and its traffic. You correctly use the blue sign. You communicate appropriately with the crew and the quayside partners.

Arrival

Your journey ends in a traffic situation with multiple vessels. The space provided for mooring is limited.

ANNEX 3

Draft model examination at operational level operation of the craft (annex to cesni (21) 25)

The draft standard for the practical examination OL sets the framework for practical examinations on OL. To provide guidance to authorities on how to conduct an exam in this regard, the CESNI/QP working group has decided to develop a model examination in accordance with ES-QIN.

In these draft standards practical examination for OL, knowledge and skills elements that shall be tested during the practical examination are specified. Listed are all elements as described in the tables of competence standards on OL as "ability". Skills are usually tested during a practical examination. However, some abilities have knowledge elements. In this model examination, the term "examination element" is used to indicate both skills and knowledge.

The model examination is carried out on the assumption that the applicant has passed the knowledge elements (theoretical examination) from the standards for competence on OL as well as the assessment of the skills that for practical reasons were not assessed on board the craft during this practical part prior to the model examination.

For practical reasons, the exam is divided into four parts:

Part 1: Navigation

- Part 1a Steering the craft (including applicable regulations)
- Part 1b Assisting with anchor operations
- Part 1c Mooring, unmooring and docking operations for pushed convoys / coupled convoys from deck, including operation and maintenance
- Part 1d Loading and unloading

Part 2: Sailing the craft

Skills shall be demonstrated on an approved simulator or a craft. Experts recommend the use of a craft of more than 38 meters length.

Part 3: Security and communication

- Part 3a Safety and environment
- Part 3b Communication

Part 4: Technology and maintenance

- Part 4a Propulsion engine / machines
- Part 4b Marine engineering, electricity, electronics, measurement and control technology
- Part 4c Maintenance and repair.
- For this Course Manual, Part 2 has to be taken into account.

The examination elements are listed in the table below:

★ All examination elements with a red star may be tested prior to or during a practical examination or in a written assignment.

No.	Competence	Examination elements	Part	Cat.
12	2.1.1 (2)	Distinguish various types of craft;	2 ★	II
13	2.1.2 (2)	Apply knowledge of the construction of inland waterway craft and their behaviour in water, especially in terms of stability and strength;	2 ★	II
14	2.1.3 (2)	Apply knowledge of the craft's structural parts and identify the parts by name and function;	2 ★	II
16	2.1.5 (2)	Apply knowledge on the craft's obligatory documentation required for craft's operation;	2 ★	II
19	2.2.3 (2+3)	Use equipment specific to passenger vessels;	2 ★	II

Other examination elements that shall be tested during a practical exam which do not belong to any of the aforementioned groups:

No.	Competence	Examination elements	Part	Cat.
15	2.1.4 (2)	Apply knowledge on the craft's watertight integrity;	2	II
17	2.2.1 (2+3)	Use anchors and handle anchor winches;	1b	I
18	2.2.2 (2+3)	Handle deck equipment and lifting devices;	2	I

Examination elements tested prior to practical examination during an approved training programme.

No.	Competence	Examination elements	Part	Cat.
12	2.1.1 (2)	Distinguish various types of craft;	2 ★	II
13	2.1.2 (2)	Apply knowledge of the construction of inland waterway craft and their behaviour in water, especially in terms of stability and strength;	2 ★	II
14	2.1.3 (2)	Apply knowledge of the craft's structural parts and identify the parts by name and function;	2 ★	II
16	2.1.5 (2)	Apply knowledge on the craft's obligatory documentation required for craft's operation;	2 ★	II
19	2.2.3 (2+3)	Use equipment specific to passenger vessels;	2 ★	II

COMPETING

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