Implementation of CEVNI Revision 5





UNITED NATIONS ECONOMIC COMMISSON FOR EUROPE

Implementation

of **CEVNI** Revision 5



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UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

The United Nations Economic Commission for Europe (UNECE) is one of the five United Nations regional commissions, administered by the Economic and Social Council (ECOSOC). It was established in 1947 with the mandate to help rebuild post-war Europe, develop economic activity and strengthen economic relations among European countries, and between Europe and the rest of the world. During the Cold War, UNECE served as a unique forum for economic dialogue and cooperation between East and West. Despite the complexity of this period, significant achievements were made, with consensus reached on numerous harmonization and standardization agreements.

In the post-Cold War era, UNECE acquired not only many new member States, but also new functions. Since the early 1990s the organization has focused on analyses of the transition process, using its harmonization experience to facilitate the integration of Central and Eastern European countries into the global markets.

UNECE is the forum where the countries of western, central and eastern Europe, central Asia and North America — 56 countries in all — come together to forge the tools of their economic cooperation. That cooperation concerns economics, statistics, environment, transport, trade, sustainable energy, timber and habitat. The Commission offers a regional framework for the elaboration and harmonization of conventions, norms and standards. The Commission's experts provide technical assistance to the countries of South-East Europe and the Commonwealth of Independent States. This assistance takes the form of advisory services, training seminars and workshops where countries can share their experiences and best practices.

Inland Transport Committee (ITC) – Centre of United Nations Transport Conventions

TRANSPORT IN UNECE

The UNECE Sustainable Transport Division is the secretariat of the Inland Transport Committee (ITC) and the ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals. The ITC and its 17 working parties, as well as the ECOSOC Committee and its sub-committees are intergovernmental decision-making bodies that work to improve the daily lives of people and businesses around the world, in measurable ways and with concrete actions, to enhance traffic safety, environmental performance, energy efficiency and the competitiveness of the transport sector.

The ECOSOC Committee was set up in 1953 by the Secretary-General of the United Nations at the request of the Economic and Social Council to elaborate recommendations on the transport of dangerous goods. Its mandate was extended to the global (multi-sectoral) harmonization of systems of classification and labelling of chemicals in 1999. It is composed of experts from countries which possess the relevant expertise and experience in the international trade and transport of dangerous goods and chemicals. Its membership is restricted in order to reflect a proper geographical balance between all regions of the world and to ensure adequate participation of developing countries. Although the Committee is a subsidiary body of ECOSOC, the Secretary-General decided in 1963 that the secretariat services would be provided by the UNECE Transport Division.

ITC is a unique intergovernmental forum that was set up in 1947 to support the reconstruction of transport connections in post-war Europe. Over the years, it has specialized in facilitating the harmonized and sustainable development of inland modes of transport. The main results of this persevering and ongoing work are reflected, among other things, (i) in 58 United Nations conventions and many more technical regulations, which are updated on a regular basis and provide an international legal framework for the sustainable development of national and international road, rail, inland water and intermodal transport, including the transport of dangerous goods, as well as the construction and inspection of road motor vehicles; (ii) in the Trans-European North-south Motorway, Trans-European Railway and the Euro-Asia Transport Links projects, that facilitate multi-country coordination of transport infrastructure investment programmes; (iii) in the TIR system, which is a global customs transit facilitation solution; (iv) in the tool called For Future Inland Transport Systems (ForFITS), which can assist national and local governments to monitor carbon dioxide (CO₂) emissions coming from inland transport modes and to select and design climate change mitigation policies, based on their impact and adapted to local conditions; (v) in transport statistics - methods and data - that are internationally agreed on; (vi) in studies and reports that help transport policy development by addressing timely issues, based on cutting-edge research and analysis. ITC also devotes special attention to Intelligent Transport Services (ITS), sustainable urban mobility and city logistics, as well as to increasing the resilience of transport networks and services in response to climate change adaptation and security challenges.

In addition, the UNECE Sustainable Transport and Environment Divisions, together with the World Health Organization (WHO) — Europe, co-service the Transport Health and Environment Pan-European Programme (THE PEP).

Finally, as of 2015, the UNECE Sustainable Transport Division is providing the secretariat services for the Secretary General's Special Envoy for Road Safety, Mr. Jean Todt.

PREFACE

Activities of UNECE relevant to navigation on inland waterways started following the creation of the Sub-Committee on Inland Water Transport by ITC at its sixteenth session in December 1956. At that time, it was acknowledged that harmonized navigation rules were essential to facilitate traffic on inland waterways and to ensure navigation safety. The European Inland Waterway Navigation Code was first established by resolution No. 4 of the Sub-Committee who has, since then, been the guardian of these rules.

Resolution No. 24 adopted by the Working Party on Inland Water Transport (SC.3) in 1985 has become a basis for further work on the European Code for Inland Waterways (CEVNI) followed by a number of revisions. The current revision 5, based on best practices from the existing traffic regulations and recent developments of River Commissions and UNECE member States, was adopted by resolution No. 81 in 2014. CEVNI 5 is available on the UNECE website at www.unece.org/trans/main/sc3/sc3res.html.

Recognizing the importance of the proper implementation process for CEVNI, SC.3 has been collecting and maintaining the information on the implementation of CEVNI by UNECE member States and River Commissions since 2010 under the title "Implementation of the European Code for Inland Waterways" (CEVNI status document).

Furthermore, the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) at its forty-eighth session in February 2016 decided to issue a publication on the implementation of CEVNI aimed at ensuring navigation safety. This publication, prepared by a consultant, gives an overview of the history and the application scope of CEVNI, the application by member States and River Commissions, both formal and actual, regional and national special requirements and provides recommendations for further increasing the use of CEVNI within the ECE region and beyond. It also highlights the role of River Commissions in establishing rules for European inland waterways. The main findings and conclusions were reported to SC.3 at the workshop "Inland Navigation Rules: Implementation of the European Code for Inland Waterways" held on 4 October 2017 at the sixty-first session of SC.3.

UNECE activities aimed at enhancing navigation safety on inland waterways in the pan-European format and efforts towards harmonizing the navigation rules contribute to the implementation of Sustainable Development Goal 9.

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EXECUTIVE SUMMARY

Traffic regulations are one of the most important components of ensuring navigation safety on inland waterways. The United Nations Economic Commission for Europe (UNECE) provides a common basis for harmonized traffic regulations on European waterways through the European Code for Inland Waterways (CEVNI) adopted by the Working Party on Inland Water Transport (SC.3). These harmonized rules constitute the legal and technical basis for national inland waterway codes in UNECE member States.

CEVNI was first established in 1962 and was adopted as resolution No. 24 on 15 November 1985. It contains the core uniform rules applicable to traffic on inland waterways, such as marking and visual signs on vessels, sound signals and radiotelephony, waterway signs and markings, rules of the road, berthing rules, signalling, reporting requirements, prevention of pollution of water, and disposal of waste. The fifth revised edition of CEVNI (CEVNI 5) is the most harmonized version of the document, and brings together the best practices from the existing traffic regulations of River Commissions and ECE member States.

Most of regional and national legislation, such as police regulations of River Commissions and national traffic regulations, are the historical basis for CEVNI or the reference. However, some of these regulations contain provisions additional to or deviating from CEVNI, which are based on geographical, nautical or historical specificities of the waterways. Furthermore, the acceptance of CEVNI and the intention to implement these traffic rules is significantly influenced by River Commissions which have the status of international organizations:

(a) The Central Commission for the Navigation of the Rhine (CCNR): charged with the task of establishing the rules for inland navigation of the Rhine. The Police Regulations for the Navigation of the Rhine (RPNR) are mandatory to its member States;

(b) The Danube Commission (DC): maintains the Basic Provisions Relating to the Navigation on the Danube (DFND), which are not legally binding recommendations. DC decided to implement CEVNI revision 5 in December 2017;

(c) The Mosel Commission (MC): seeks to align the Police Regulations for the Navigation of the Mosel with the Rhine regime for obvious geographical and political reasons. The general interest in the harmonization of inland navigation traffic rules leads to participation in the work on updating CEVNI in the future;

(d) The International Sava River Basin Commission (ISRBC): is legislatively competent to introduce the Navigation Rules of the Sava River Basin as legally binding, and has proven itself to be modern and flexible. At present, ISRBC is the only River Commission that has implemented CEVNI revision 5 in full.

The boatmasters of two vessels on the same international waterway are often from different countries and react based on different traffic regulations. This situation leads to considerable uncertainty and remains unsatisfactory for safety. As it is not currently possible to overcome all regional and national deviations and additional requirements nor to agree on one common set of traffic rules for all inland waterways in Europe, a possible solution could be that the

2 IMPLEMENTATION OF CEVNI – EXECUTIVE SUMMARY

competent authorities and the international organizations rely on one basic common set of rules, such as CEVNI.

The workshop "Inland Navigation Rules: Implementation of the European Code for Inland Waterways" held at the sixty-first session of SC.3, emphasised that the main practical value of unified navigation rules for inland waterways was ensuring harmonized standards for navigation safety. Other values were the unification of vessel documentation and procedures, the contribution to national and regional regulations which prevent accidents on inland waterways, and the common standards for the education and competencies of crews. The majority agreed that, in order to make CEVNI more viable, it should have the status of an international agreement. Such an agreement could also take into account the specific requirements of a particular river section or a river basin.

However, River Commissions and administrations of member States may consider that agreeing on CEVNI as an international agreement would restrict the necessary flexibility for river basin specific, regional or national deviations. Nevertheless, boatmasters need a practical and comfortable source of information about the rules in force on a certain section of a European waterway.

To ensure the necessary transparency, whether CEVNI becomes an international agreement or not, a depository is needed to keep track of the implementation of CEVNI, and of all deviations from CEVNI as well as additional requirements in river basin/regional/national regulations. In addition, national and international organizations should commit themselves to report all deviations to this "depository" — which could be UNECE — to allow the creation of a webbased information tool for boatmasters.

Figure 1 River port of Koblenz, Germany



Source: iStock.

EXECUTIVE SUMMARY — IMPLEMENTATION OF CEVNI

Ideally, this could be achieved by elevating the status of CEVNI to an international agreement representing a blueprint regulation which is accessible for River Commissions and national governments to amend the rules according to regional, national and local needs. The notification of such amendments to the depository would need to be in compliance with common standards and potentially made obligatory to allow the provision of reliable information about the legal requirements on any location of any inland waterway in Europe. Such agreement need not restrict the amendments necessary from the nautical and safety point of view, taking into account the specific requirements of the river section or river basin.

National and international bodies should be encouraged to include the original text of CEVNI as part of their regulations and to clearly indicate all the amendments and deviations which they deem indispensable, to ensure safety on their specific waterways.

To guarantee easy access to applicable traffic rules, a database-oriented information service for boatmasters should be adopted, e.g. within River Information Services (RIS), already implemented along all mayor waterways across Europe, thus ensuring a higher degree of safety and accessibility. Electronic Chart Display and Information System for Inland Navigation (Inland ECDIS), which is the basis for RIS services, already refers to CEVNI.

CEVNI has proven to constitute an important part of legislation which justifies every effort to maintain this living document while pursuing maximum transparency. To make best use of these traffic rules, member States should consider in more detail the potential benefits and costs of converting CEVNI into an international agreement, similar to the Vienna Convention on road traffic and possibly come back to this issue in the medium-term future.

Figure 2 The river Saône, France



Source: iStock.

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ACRONYMS

AIS	Automatic Identification System
AtoN	Aid to Navigation
BPR	National Inland Waterways Police Regulations of Netherlands
CCNR	Central Commission for the Navigation of the Rhine
CDNI	Convention on Collection, Deposit and Reception of Waste Produced during Navigation on the Rhine and Inland Waterways, 1996
CEMT	European Conference of Ministers of Transport
CEVNI	European Code for Inland Waterways
COLREG	Convention on the International Regulations for Preventing Collisions at Sea, 1972
DC	Danube Commission
DFND	Basic Provisions Relating to the Navigation on the Danube
DHN	Directorate for Hydrography of the Brazilian Navy
EBA	European Boating Association
ECDIS	Electronic Chart Display and Information System for Inland Navigation
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
FASRB	Framework Agreement on the Sava River Basin
GLONASS	Global Navigation Satellite System
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
ICC	International Certificate for Operators of Pleasure Craft (UNECE resolution No. 40)
IEHG	Inland ENC Harmonization Group
IHO	International Hydrographic Organization
Inland ENC	Inland Electronic Navigation Chart
ISRBC	International Sava River Basin Commission
LNG	Liquified Natural Gas
MC	Mosel Commission
MRC	Mekong River Commission

PLOVPUT	Serbian Directorate for Inland Waterways
RGP	French General Police Regulations
RIS	River Information Services
rkm	River kilometre
RPNR	Police Regulations for the Navigation of the Rhine (Règlement de Police Pour la Navigation du Rhin)
RPNM	Police Regulations for the Navigation of the Mosel (Règlement de Police pour la Navigation de la Moselle)
SC.3	UNECE Working Party on Inland Water Transport
SC.3/WP.3	UNECE Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation
SIGNI	Signs and Signals on Inland Waterways (resolution No. 22, revision 2)
UNECE	United Nations Economic Commission for Europe
USACE	US Army Corps of Engineers
VNF	Voies navigables de France

Figure 3

The river Limmat, Zurich, Switzerland



Source: iStock.

1. ACTIVITIES OF SC.3 DEDICATED TO CEVNI

1.1 SC.3 AND ITS SUBSIDIARY BODIES

The Inland Transport Committee in 1956, at its sixteenth session, set up a Sub-committee on inland water transport to consider questions primarily concerning inland water transport (E/ECE/TRANS/497). The primary task of the Sub-Committee was to prepare three international conventions in inland navigation. Subsequently, it was renamed a principal working party and then a working party, but the acronym SC.3 was kept unchanged.

Since its creation, a number of subsidiary bodies have been established within SC.3. The overview of subsidiary bodies of SC.3 is given in figure 4.

Figure 4

SC.3 and its subsidiary bodies



Source: UNECE.

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1.2 INFORMAL CEVNI EXPERT GROUP AND ITS ROLE

As CEVNI requires regular updating in order to reflect the changes in equipment and technology, ad hoc groups have been established at different periods entrusted with this task as well as the preparation of amendment proposals to be transmitted to SC.3/WP.3 and SC.3 for further consideration.

The present CEVNI Expert Group was established in 2008 as an informal working body of SC.3. It consists of representatives of member States, River Commissions and the European Boating Association (EBA). The objective of the CEVNI Expert Group was initially set to identify the differences in traffic rules in Europe to help further harmonize navigation rules applicable to specific European river basins thus facilitating the work of skippers. The group also considers amendment proposals to CEVNI submitted by Governments and River Commissions and — via SC.3/WP.3 — forwards them to SC.3 for formal adoption. The informal working group works in English.

While working on the fourth revision of CEVNI, the group met three times a year. After the adoption of CEVNI 5, it continued its work on further amendment proposals with a view of introducing new provisions, harmonizing the Code with the police regulations of CCNR and MC and aligning it with other documents of SC.3. The web page of the CEVNI Expert Group is available on the UNECE website at:

www.unece.org/trans/main/sc3/sc3/sc3_ig/group_cevni.html.

Figure 5

Lock on the river Neckar, Germany



Source: iStock.

2. OVERVIEW OF CEVNI

2.1 GENERAL ASPECTS AND THE EVOLUTION

Harmonized navigation rules are essential to facilitate traffic on inland waterways and ensure safety of inland water transport, which is acknowledged as a safe mode of inland transport, where the human factor is relevant in about 80 per cent of the accidents in inland navigation.¹

The European Code for Inland Waterways (CEVNI) was first established in 1962 and was adopted by UNECE as resolution No. 24 on 15 November 1985. Since then, it has been maintained by SC.3. CEVNI contains the core uniform rules applicable to traffic on inland waterways, such as markings on vessels, visual signs on vessels, sound signals, provisions for radiotelephony, radar installations and the Inland Automatic Identification System (AIS), waterway signs and markings, rules of the road, berthing rules, signalling, reporting requirements, prevention of pollution of water and disposal of waste.

The provisions of CEVNI are traditionally based on the relevant police regulations of River Commissions for the Danube, the Mosel, the Rhine and the Sava and adjusted to account for the pan-European scope of the code.

CEVNI is maintained by discussing proposals originating from River Commissions and member States in the "police working party" — former SC.3/WP.2, today SC.3/WP.3 — and adopting amendments and revised versions at SC.3 sessions. Such singular amendments lead to a rather complete standard which over the years began to suffer from parallel requirements and a high number of footnotes to allow for river basins, regional and national amendments or different requirements.

2.1.1 APPLICATION OF THE EUROPEAN INLAND WATERWAY NAVIGATION CODE (RESOLUTION No. 4)

The Sub-Committee on Inland Water Transport adopted the first text of CEVNI at its sixth session on 14 December 1962 as resolution No. 4² as a part of the ongoing work on ensuring safety of shipping and unifying police regulations in force on European inland waterways. The resolution proposed also the structure for national police regulations consisting of two parts, the first for CEVNI provisions, and the second — specific provisions applied by Governments.

In 1966, CEVNI rules were complemented with provisions for freeboard and draught markings and sound signs on inland waterway vessels,³ in 1977 — by provisions concerning navigation on lakes,⁴ and in 1978 — by provisions concerning navigation of small craft on rivers.⁵

In order to facilitate the harmonization between the rules applied in the ECE region, a comparative analysis of provisions of CEVNI with DFND and RPNR was made for the first time by the Danube Commission (DC) and published in 1976 (see figure 6).

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¹ The research study on incidents on inland waterways of central Europe, Maritime Academie Harlingen (2015).

² TRANS/270, annex 1.

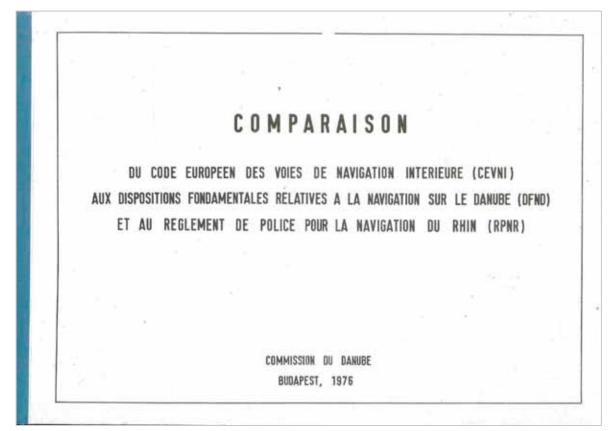
³ TRANS/316, annexes 1 and 2.

⁴ TRANS/SC3/91, annex 1.

⁵ TRANS/SC3/95.

Figure 6

Cover page of the Comparison of the European Code for Inland Waterways, Basic Provisions Relating to the Navigation on the Danube and Police Regulations for the Navigation of the Rhine, prepared by the Danube Commission



Source: UNECE.

2.1.2 REVISION OF THE EUROPEAN CODE FOR INLAND WATERWAYS (RESOLUTION No. 24 AND REVISIONS 1-2)

In 1985, SC.3 adopted a revised text of CEVNI (TRANS/SC3/115) by its resolution No. 24.⁶ It was emphasized that the main aims of the revision of CEVNI were: the re-unification of the rules of the road and signs and signals in inland navigation; the inclusion in CEVNI of provisions of relevant maritime regulations addressing the development of river-sea transport; the establishment of regulations for all waterways (rivers, canals, lakes, etc.) and the restructuring of the chapter concerning Regulations for lakes, as well as the addition of rules of the road and signs and signals for pleasure craft. It was stressed that the new CEVNI should be regarded as a basis for the continued development and updating of international regulations, which should in the future be amended in keeping with navigational needs and safety.

To date, all amendments and additions to CEVNI have been introduced while keeping the text of resolution No. 24 unchanged.

⁶ TRANS/SC3/114 and annex 2.

The first revision of the new CEVNI was completed in 1997 based on the text appearing in annex to resolution No. 24 as amended by resolutions Nos. 26, 27 and 37, and approved by SC.3 at its forty-first session.⁷

At its forty-second session, SC.3 considered and adopted the text of resolution No. 39 amending the revised CEVNI with provisions relating to reporting requirements by vessels carrying dangerous goods. Together with resolutions Nos. 43-47 containing provisions for radiotelephony, a new chapter 9 "Prevention of pollution of water and disposal of waste occurring on board vessels", provisions for signal lights and national rules differing from CEVNI, it constituted a basis for the second revision of CEVNI endorsed in 2000 at the forty-fourth session of SC.3.⁸

2.1.3 FROM REVISION 3 TO REVISION 4

Following the request of the fiftieth session of SC.3 in October 2006,⁹ the third revised edition of CEVNI was issued in 2007. It covered resolutions Nos. 54 and 62.

In 2006, Austria submitted a proposal to upgrade CEVNI to an international agreement — similar to the legal situation in aviation — with the possibility to amend and complement the provisions based on a river basin, regional, or national competency with the only obligation to notify such deviations from the basic text to the depository — UNECE — which, in its proposed role of custodian, would have to keep track of such texts and provide a convenient database to give to all boatmasters on European waterways the necessary transparency and legal certainty.¹⁰

After an extensive exchange of views on this proposal, SC.3 expressed its generally positive view on the proposal, although after the collection of reactions and comments of River Commissions it was concluded that the main aim of the proposal — to promote and facilitate the use of the CEVNI rules — could be achieved by other means than transforming CEVNI into a legally binding international document.

In this light, the Austrian delegation volunteered to prepare a database identifying the differences between CEVNI provisions and that of regional navigation rules by River Commissions.¹¹

In 2008, Austria presented a comparison document on the differences between CEVNI, RPNR, DFND and the Rules for the Navigation on the Sava. This document provided an analytical basis for further harmonization of these international instruments.¹²

⁷ TRANS/SC.3/143, paras. 37-39.

⁸ TRANS/SC.3/153, paras. 19-23.

⁹ ECE/TRANS/SC.3/174, paras. 35-36.

¹⁰ www.unece.org/fileadmin/DAM/trans/doc/2007/sc3/ECE-TRANS-SC3-2007-01e.pdf.

¹¹ www.unece.org/fileadmin/DAM/trans/doc/2007/sc3/ECE-TRANS-SC3-178e.pdf.

¹² www.unece.org/fileadmin/DAM/trans/doc/2008/sc3wp3/ECE-TRANS-SC3-WP3-2008-14e.pdf.

In 2008, at the initiative of Austria and Netherlands an informal group of experts, composed of representatives of Austria, Netherlands, DC, the International Sava River Basin Commission (ISRBC) and the UNECE secretariat, was established. The goal of the group was to prepare amendment proposals to CEVNI, as well as to the River Commissions' rules and regulations, with the aim of further harmonizing their provisions. The group made considerable progress and the work was viewed by representatives of CCNR and DC as valuable for their respective member States. The River Commissions committed to take an active part in this work and assured that the proposals of the group would be considered in the relevant subsidiary bodies of the River Commissions.¹³

2.1.4 CEVNI REVISION 4

The CEVNI Expert Group initially made rapid and efficient progress on CEVNI revision 4 especially owing to the active participation of all River Commissions. CEVNI revision 4 constituted an overall clean-up of the standard with considerably more changes between 2007 and 2009 in comparison to the changes proposed between 1986 and 2007. In particular, a new Chapter 9 on regional and national special requirements was introduced.

The result of a hard work of the CEVNI Expert Group was the development of a revised text of CEVNI. In November 2009, SC.3 approved a draft resolution on amendments to CEVNI as contained in document ECE/TRANS/SC.3/2009/4 as resolution No. 66 (CEVNI revision 4), and hailed it as a significant step towards the harmonization of traffic regulations at the pan-European level.¹⁴

2.1.5 CEVNI REVISION 5

On the way to revision 5, the CEVNI Expert Group made considerable efforts to align CEVNI with RPNR. Unfortunately, due to limited availability in the run up to the finalization of revision 5, CCNR could not participate in key expert group meetings.

Nevertheless, with CEVNI revision 5, SC.3 and the CEVNI expert group succeeded in taking into account best practices from the existing traffic regulations of River Commissions and member States. The consolidated text was adopted at the fifty-eighth session of SC.3 as resolution No. 81.¹⁵ Key additions to CEVNI revision 5, including updating several articles in relation to small craft, radiotelephony, AIS, prevention of pollution of water, and a new annex on a safety checklist for bunkering fuel.

2.1.6 ONLINE VERSION OF CEVNI

The online version of the CEVNI revision 5 was developed by UNECE in 2015. These online versions add several advantages compared to a static support in the form of PDF or printed versions of the Code, as they allow easy access to definitions when reading the rules, to switch between the three linguistic versions, and facilitate the navigation between CEVNI articles and annexes. It also allows to search for information by combining several key words. CEVNI 5 is available online at: https://wiki.unece.org/display/TransportSustainableCEVNIv5.

¹³ www.unece.org/fileadmin/DAM/trans/doc/2008/sc3wp3/ECE-TRANS-SC3-181e.pdf.

¹⁴ ECE/TRANS/SC.3/183, paras. 11-12.

¹⁵ ECE/TRANS/SC.3/197, para. 38.

2.2 CEVNI AND MARITIME RULES

While the basic traffic rules for inland waters and coastal waters appear to be very similar, there are specific differences as concerns the marking of the fairway.

While on rivers and canals the lateral system is the method of choice, on coastal waters, lakes and broad waterways the cardinal system of marking obstacles to navigation is a better solution. CEVNI has duly taken into account this marking system from the beginning.

After the adoption in 1982 by the International Association of Lighthouse Authorities (IALA) of a new maritime buoyage system, SC.3 used the provisions in this system, where applicable to inland waterways, to update CEVNI and the Signs and Signals on Inland Waterways (SIGNI), including cardinal marking system and other markings, for the buoyage and marking of lakes and broad waterways. The aim of introducing these modifications was to ensure navigation safety and harmonizing the system of signs and signals on inland waterways with the IALA maritime system of buoyage. These provisions have been defined in such a way as to avoid, as far as possible, any risk of conflict or confusion between the two systems of buoyage. They are part of CEVNI since its adoption by resolution No. 24 of 15 October 1985 (TRANS/SC3/115), and the work of harmonizing CEVNI with the IALA Aids to Navigation (AtoN) system has been continued, with the most recent amendment introduced by resolution No. 88.

Figure 7

Bridge linking the banks of the Sava and the Danube in Belgrade



Source: iStock.

2.3 CEVNI LANGUAGE VERSIONS

CEVNI, being a UNECE resolution, is available at UNECE in three official languages: **English**, **French and Russian**. Over the years, this proved to be insufficient, as the countries along the Danube, the Mosel, the Rhine and the Sava rivers speak a number of other languages.

To meet this demand, in the second half of the 1980s the four German-speaking UNECE member States (Austria, Federal Republic of Germany, German Democratic Republic and Switzerland) met in Koblenz (Germany) for a translation meeting to draft a harmonized **German** version of CEVNI. The result of this work was issued in 1987. The publication is shown in figure 8a.

Another attempt to offer the **German** version of CEVNI was started with revision 4¹⁶ where UNECE commissioned a draft text which was edited together with CCNR (figure 8b). This version was also the basis for a comparison of CEVNI revision 4 with RPNR.

(b)

Edition 2013

Figure 8 German translation of CEVNI

(a) Edition 1987



Source: UNECE.

A number of industry stakeholders have expressed the desire to have the German version of CEVNI revision 5, as German is one of the official languages of CCNR, DC and MC. Furthermore, this German version could demonstrate the high level of harmonization with RPNR that has already been achieved. SC.3 is currently reviewing the possibility to prepare the German text of CEVNI 5.

¹⁶ Available at www.unece.org/fileadmin/DAM/trans/doc/2013/sc3wp3/Final_German_CEVNI-Rev4.pdf.

SC.3 is regularly informed by member States about the ongoing work on the translation of CEVNI in their national languages. The current state of play of other language versions is set out below.

Croatian

The Croatian government, as member of ISRBC, prepared a Croatian version of CEVNI revision 5 which is implemented on the Sava river in advance of the formal decision of DC on the new DFND.

Dutch

In 2013, the Dutch delegation informed the UNECE secretariat that CEVNI revision 4 had been translated into Dutch to enable a comparison of CEVNI with the existing regulations, which differ between the six regions. At that time, the goal was to have one inland navigation act based on CEVNI by 2015.

Slovak

The Slovakian administration not only prepared the Slovak version of CEVNI revision 5 but also implemented it in advance of the formal decision of DC on the new DFND.

Ukrainian

In 2017, Ukraine finalized the translation of CEVNI as a preparatory step towards the implementation of CEVNI in national legislation.

After the publication of CEVNI revision 5, UNECE has uploaded on its website the other language versions that it has received from member States. It is hoped that other countries will submit their translations in the near future.

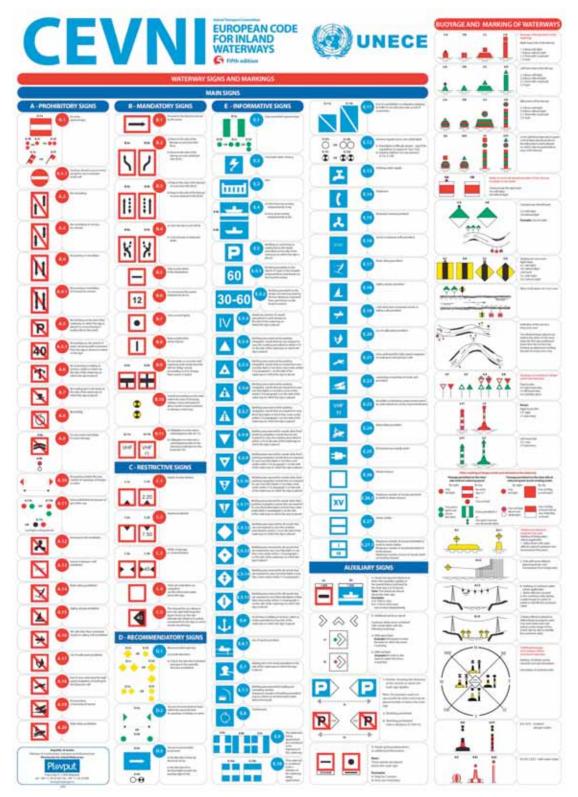
2.4 CEVNI POSTER AND THE DATABASE OF CEVNI SIGNS

Posters on waterway signs and markings were prepared by the Serbian Directorate for Inland Waterways (PLOVPUT) in accordance with CEVNI 4 (in 2011) and CEVNI 5 (in 2016).¹⁷ The posters contain pictograms and descriptions of waterway signs and marking from annexes 7 and 8 (see figure 9).

As part of this work, a database of pictograms of signs contained in CEVNI has been prepared by UNECE. This database can be provided by UNECE upon request.

¹⁷ www.unece.org/fileadmin/DAM/trans/doc/2017/sc3wp3/CEVNI_5_-_ENG_final.pdf.

Figure 9 CEVNI poster



Source: PLOVPUT/UNECE.

3. INLAND NAVIGATION REGIMES IN EUROPE: RIVER COMMISSIONS

3.1 HIERARCHY AMONG UNECE, THE EUROPEAN UNION, CCNR, DC, MC AND ISRBC

Whilst the UNECE has the biggest geographical scope, its resolutions relevant to inland waterways are not binding on its member States. Moreover, due to its diverse membership, it has the lowest level of harmonization.

In the European Union, the unified inland water transport regulatory framework requires further work due to the rather fragmented legislative and institutional framework both regionally and domestically. Directives of the European Union related to inland water transport are, however, binding on all its member States. They refer to technical requirements for inland navigation vessels, River Information Services, the transport of dangerous goods on inland waterways (the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) and the qualifications of boatmasters.

The Central Commission for the Navigation of the Rhine (CCNR), although having a more limited geographical scope, has the highest level of harmonization, resulting from the fact that its decisions must be implemented in national legislation.

The Danube Commission (DC) recommendations (in this case DFND), like UNECE resolutions, are non-binding. DC recommendations usually draw inspiration from UNECE resolutions and the provisions generally mirror each other. DC decisions are not formally mandatory, however, member States have committed to implement them in national legislation.

The Mosel Commission (MC) decisions are binding according to the Convention on the Canalisation of the Mosel (Mosel Convention) that was signed by the Federal Republic of Germany, the French Republic and the Grand Duchy of Luxembourg in 1956. The joint rules established by MC must be enacted and made public in accordance with relevant national legislation.

The International Sava River Basin Commission (ISRBC) Rules are legally binding for the Parties to the Framework Agreement on the Sava River Basin: Bosnia and Herzegovina, Croatia, Serbia and Slovenia.

Despite the evident overlap, there is no clear-cut hierarchy among the regulatory regimes.

Member States of the European Union are bound by Directives of the European Union, while CCNR member States are bound by CCNR Regulations. CCNR and the European Commission have concluded a special agreement that establishes the level of cooperation between them. The 2013 Administrative Arrangement concerning a Framework for Cooperation between the Secretariat of CCNR and the Directorate-General for Mobility and Transport of the European Commission (DG MOVE) sets out the areas, forms and contents of cooperation, including the management of the European committee for drawing up common standards in the field of

inland navigation (CESNI), which drafts standards for inland navigation vessels and crews that are intended to be implemented within the jurisdiction of the European Union as well as that of CCNR.

CCNR and DC, according to their cooperation document, intend to cooperate in the harmonization of regulatory documents such as those on navigation rules and the issuance of boatmasters' certificates.

CCNR and MC cooperate very closely, given that Germany and France are members of both River Commissions, and the fact that vessels regularly cross the border between the areas of jurisdiction of these two commissions.

The application of CEVNI in the police regulations of the River Commissions is set out below. Although **the formal application of CEVNI**, by introducing CEVNI provisions in the police regulations, may be not directly stated in decisions, the practical harmonization of the rules of River Commissions with CEVNI (actual application) is often higher, due to the considerable work made within SC.3.

3.1.1 CENTRAL COMMISSION FOR THE NAVIGATION OF THE RHINE

The member States of CCNR are: Belgium, Germany, France, Netherlands and Switzerland. Observer States to CCNR are: Austria, Bulgaria, Czech Republic, Hungary, Luxembourg, Poland, Romania, Serbia, Slovakia, Ukraine and the United Kingdom of Great Britain and Northern Ireland.

CCNR is attentive to close cooperation with the other River Commissions. There is a tradition of exchanges with DC. The two organisations invite each other to attend their plenary meetings and their working sessions.

Concerning cooperation with the inland navigation industry, currently, a number of organisations representing the industry (navigation companies, ports, shippers, engine manufacturers etc.) have been approved to participate in the work of CCNR.

The Police Regulations for the Navigation of the Rhine (RPNR) constitute the oldest regional set of traffic rules for inland navigation.

CCNR regularly transmits to UNECE information concerning adopted amendments to RPNR which are of general interest for navigation safety; as an example, the reporting obligations entering into force with 1 June 2018 on the whole Rhine section.¹⁸ Formally, CCNR does not apply CEVNI in any version or revision. However, the contents of RPNR is very close to CEVNI revision 5.

3.1.2 DANUBE COMMISSION

The member States of DC are: Austria, Bulgaria, Croatia, Germany, Hungary, Moldova, Romania, Russian Federation, Serbia, Slovakia and Ukraine. The following countries have observer status at DC: Belgium, Cyprus, Czech Republic, France, Georgia, Greece, Montenegro, Netherlands, the

¹⁸ www.unece.org/fileadmin/DAM/trans/doc/2017/sc3wp3/ECE-TRANS-SC3-CEVNI-EG-2017-5.pdf.

former Yugoslav Republic of Macedonia and Turkey. DC maintains the Basic Provisions Relating to the Navigation on the Danube (DFND) which refer to CEVNI.

DC reacted quickly to the publication of CEVNI revision 4 and had brought DFND in line with the new standard at its seventy-fifth plenary session on 14 December 2010.¹⁹ CEVNI revision 4 is implemented in the national legislation of the DC member States.

Currently, there are discussions within DC about national amendments of the general rules. Representatives of the industry report cases where such national provisions differ from DFND to such an extent that they constitute an additional burden to the industry, e.g. concerning the qualification of crews in case of radar navigation.

The CEVNI/DFND Expert Group (ETDF) at its meeting held in September 2017 adopted an update to DFND based on CEVNI revision 5. These results were accepted by the Working Group on Technical Matters (TECH) at its meeting in October 2017. The new DFND was adopted at the eighty-ninth session of DC in December 2017.

DC participates in meetings of the CEVNI Expert Group on a regular basis.

3.1.3 MOSEL COMMISSION

The member States of MC are France, Germany and Luxembourg.

The joint rules established by MC are binding for its member States and must be implemented and published in accordance with relevant national legislation. As mentioned already, the provisions of MC are similar to those for CCNR. As a consequence, formally the Mosel Commission does not apply CEVNI at all and is not intending to do so in the future. However, according to an internal evaluation of the differences between RPNM, RPNR and CEVNI, the content of RPNM is very close to CEVNI revision 5 for about 90 per cent of its content.²⁰

MC continues to submit new amendments to RPNM and written proposals to UNECE and intends to continue participating in the work of the CEVNI Expert Group.

MC holds annual meetings with the industry, which are an opportunity also for the boatmasters to provide their input.

MC states that there is no negative feedback from the pleasure navigation community in relation to traffic rules, and MC is not in favour of differentiating between traffic rules for commercial navigation and for pleasure navigation. In order to prevent misunderstanding between boatmasters, it seems indispensable that pleasure craft operators have a basic knowledge of the police regulation.

¹⁹ CD/SES 75/24.

²⁰ http://commission-de-la-

moselle.org/index.php?eID=tx_nawsecuredl&u=0&g=0&t=1535450781&hash=a676ad0c5 b691e4ee46afcaea0c1f971c1895274&file=fileadmin/user_upload/Regelwerke/RPNM_au_0 1.06.17.pdf.

3.1.4 INTERNATIONAL SAVA RIVER BASIN COMMISSION

The member States of ISRBC are: Bosnia and Herzegovina, Croatia, Serbia and Slovenia.

The legal basis for its activities is the Framework Agreement on the Sava River Basin (FASRB) of 3 December 2002.²¹ This agreement integrates all aspects of the water resources management and establishes ISRBC for the implementation of FASRB, with the legal status of an international organization.

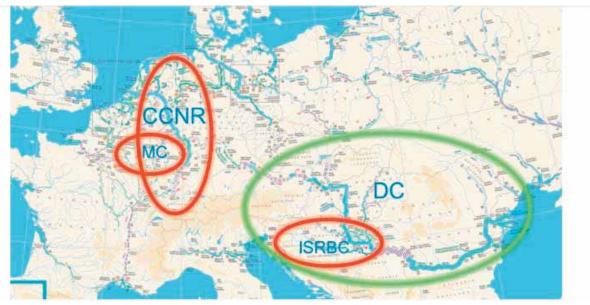
Decision No. 4/16, establishing amendments of the Navigation Rules on the Sava River Basin and providing a consolidated version of these rules which includes all the provisions within CEVNI revision 5, was adopted by ISRBC on 18 February 2016, entered into force on 19 March 2016 and applies as of 1 January 2017.²²

3.2 IMPLEMENTATION OF CEVNI BY RIVER COMMISSIONS

Figures 10 to 16 below summarize the application of CEVNI within the international river basins.

Figure 10

Formal application of CEVNI revision 4 in river basins



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source:* UNECE/vowi.

²¹ www.savacommission.org/dms/docs/dokumenti/documents_publications/ basic_documents/fasrb.pdf.

²² www.savacommission.org/dms/docs/dokumenti/odluke_savske_komisije/2016_decision_ 4_16_rules_of_navigation/decision_4_16_navigation_rules_in_the_sava_river_basin_eng.pdf.

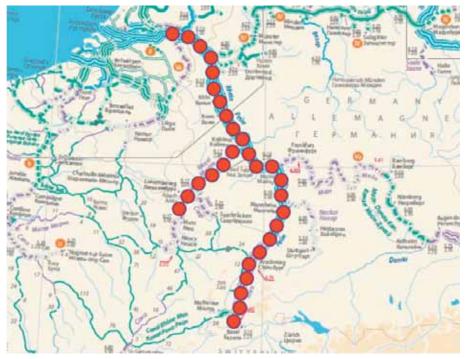
Figure 11 Formal application of CEVNI revision 5 in river basins



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source*: UNECE/vowi.

Figure 12

Formal application of CEVNI revision 4 and CEVNI revision 5 by CCNR and MC



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source:* UNECE/vowi.

Image: Control of the second of the secon

Figure 13 Actual application of CEVNI revision 5 by CCNR and MC

Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source:* UNECE/vowi.

Figure 14 Formal application of CEVNI revision 4 by DC and ISRBC



Note: Red indicates where CEVNI is not applied, indicates where CEVNI is applied. *Source*: UNECE/vowi.

Figure 15 Formal application of CEVNI revision 5 by DC and ISRBC



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source:* UNECE/vowi.

Figure 16

Estimated application of CEVNI revision 5 by DC and ISRBC by 2019



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source:* UNECE/vowi.

4. IMPLEMENTATION OF CEVNI BY UNECE MEMBER STATES

CEVNI implementation is relevant for UNECE member States in the following cases:

(a) when the country has navigable waterways, inland water transport, and navigation is regulated by the national legislation;

(b) in the context of professional competencies of boatmasters;

(c) in the context of the International Certificate for Operators of Pleasure Craft (ICC) (resolution No. 40, revision 4).

4.1 IMPLEMENTATION OF CEVNI BY COUNTRY

AUSTRIA

Austria has always been actively involved in drafting and maintenance of CEVNI and has actively participated in the CEVNI Expert Group, SC.3/WP.3 as well as in SC.3. Following the decision of DC to adopt CEVNI revision 4 as DFND, Austria implemented the updated set of rules in the national legislation in August 2011.²³

The Austrian Ministry of Transport consults the Austrian Chamber of Commerce to seek feedback from the industry on all legislation on inland navigation. Input is also derived from the navigation surveillance offices responsible for traffic management and for intervention in the event of accidents. These inputs are evaluated and according to their relevance, conveyed to the CEVNI Expert Group. The Austrian experience with CEVNI rules is positive throughout, there are no significant complaints from the recreational navigation community.

Austria is willing to implement the fifth revision of CEVNI as early as possible, on the basis of an updated DFND.

BELARUS

On its inland waterways, Belarus applies the Inland Waterway Navigation Rules of the Republic of Belarus adopted by Order No. 60 of the Ministry of Transport and Communications of 25 October 2005 and GOST 26600-98 "Navigation signs for inland waterways. General specifications". CEVNI is not formally applied and it has not been possible to carry out a comparative analysis of the national regulations and CEVNI.

BELGIUM

Belgium applies the General Police Regulations for Navigation on Inland Waterways (APSB), implemented by Royal Decree of 24 September 2006, which are based on CEVNI 4. Work is being carried out to bring inland navigation regulations in line with CEVNI revision 5.

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²³ www.ris.bka.gv.at/Dokumente/BgblAuth/BGBLA_2011_II_289/BGBLA_2011_II_289.pdf (original document) www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer =20007447 (consolidated document as of September 2017).

The current Belgian Navigation Police Regulation (consolidated version as of 1 May 2017) already closely follows the CEVNI revision 5 document.²⁴ There are, however, some key differences. Belgium did not include provisions which were associated with the protection of waterway signs and marking, the damage to permanent structures, the obligation to clear the fairway, the prohibition of discharge into the waterways, identification marks on anchors, AIS and reporting requirements. Nevertheless, these provisions may be considered in future. Also annexes referring to the used-oil log and the safety checklist for bunkering fuel were not taken from CEVNI, as Belgium is a Contracting Party to CDNI.

BULGARIA

Bulgaria has implemented the DFND based on CEVNI revision 4. Bulgaria contributes to the DFND expert group of DC.

CROATIA

Croatia has implemented the DFND based on CEVNI revision 4, and in addition, already implemented CEVNI revision 5 via national legislation. Croatia contributes to the DFND expert group of DC and is an active promotor of the adoption of DFND based on CEVNI revision 5.

CZECH REPUBLIC

The Czech Republic applies CEVNI revision 4 on inland waterways. There is no information reported about a move to CEVNI revision 5.

FINLAND

Finland does not apply CEVNI. Nevertheless, parts of CEVNI were translated into Finnish for the purpose of testing the knowledge of CEVNI to obtain a valid ICC for inland waters according to UNECE resolution No. 40.

FRANCE

As a member State of CCNR and MC, France applies RPNR for the Rhine sections, and RPNM for the Mosel sections. In terms of national waterways, the French General Police Regulations (RGP) have been implemented with Decrees Nos. 2013-251 and 2013-253, which contain the Transport Code. ²⁵

RGP is a set of provisions which are included in the "code des transports". The numbering is different from that used in RPNR or CEVNI. In 2012-2013, work was conducted on harmonizing the applicable navigation rules, focused mainly on RPNR and RPNM and, to a limited extent, on CEVNI. The task was to harmonize not only the content of provisions, but also to ensure the same level of fines for national waterways, the Mosel and the Rhine.

Moreover, some specific national requirements were developed in a dedicated working group, involving the Ministry responsible for inland waterways, VNF, local authorities and other stakeholders. It covers, for example, the mooring place (duration limits in Article R 4241-54 and respective by-laws) or special events on water (Article R 4241-38).

²⁴ www.visuris.be/download/91fdcaec-ab67-49fc-9e01-1f930b188178?dl=0.

²⁵ www.legifrance.gouv.fr/affichCode.do;jsessionid=8B9D1D36CEB31A5C55690C3C3CC06DB6. tplgfr25s_3?cidTexte=LEGITEXT000023086525&dateTexte=20171220.

GERMANY

As a member State of three River Commissions, Germany applies RPNR for the Rhine sections, DFND for the Danube section and RPNM for the Mosel sections. The current version of DFND applied is based on CEVNI revision 4.

Germany contributes to the DFND expert group of DC. In terms of national waterways, the provisions in CEVNI revision 4 were incorporated to the widest possible extent into national Police Regulations for Inland Navigation while considering national conditions.

HUNGARY

Hungary has implemented the current edition of DFND based on CEVNI revision 4. Hungarian experts take part in the DFND expert group of DC for the amendment of DFND based on CEVNI revision 5.

IRELAND

Ireland does not apply CEVNI.

ITALY

Italy does not apply CEVNI. Nevertheless, River Information Services implemented in Italy along the Po river, including Inland ENCs, refer to CEVNI provisions.

LITHUANIA

Lithuania applies CEVNI revision 4. For CEVNI 5, appropriate national legislation is being prepared.

LUXEMBOURG

For the Mosel sections, Luxembourg applies RPNM. On national waterways, Luxembourg is considering whether to proceed with the implementation of CEVNI.

MOLDOVA

Moldova has implemented the current edition of DFND based on CEVNI revision 4. It can be expected that Moldova will vote for the adoption of DFND based on CEVNI revision 5 in the nearest future.

NETHERLANDS

For the Rhine sections, Netherlands apply RPNR. For national waterways, there is a preference for having the national police regulations in line with RPNR. As of the time of this writing, the national police regulations (BPR) are almost identical with RPNR. Specific regulations apply only on waterways shared with the neighbouring countries Belgium and Germany. Netherlands intends to ensure that these regulations are in line with RPNR.

NORWAY

Norway does not apply CEVNI.

POLAND

Poland's national legislation applies the Inland Waterway Navigation Code which is based on an earlier revision of CEVNI. There are no plans to amend it to bring it in line with CEVNI revision 5.

ROMANIA

Romania has implemented the current edition of DFND based on CEVNI revision 4. Romania contributes to the DFND expert group of DC. It can be expected that Romania will vote for the adoption of DFND based on CEVNI revision 5.

RUSSIAN FEDERATION

The Russian Federation is a member State of DC, but no longer has a section of the Danube on its territory. Nevertheless, it may vote for the adoption of DFND based on CEVNI revision 5. On national waterways, the Russian Federation actually applies many CEVNI provisions without formal acceptance. There are, however, significant differences in the marking of vessels, in particular, where the transport of dangerous goods and the marking of the fairway are concerned. A revision of the Inland Waterway Navigation Code of the Russian Federation is in progress. It should lead to a closer harmonization with CEVNI revision 5 and is expected to enter into force in the near future.

SERBIA

Serbia has implemented the current edition of DFND based on CEVNI revision 4. Furthermore, Serbia contributes to the DFND expert group of DC. It can be expected that Serbia may vote for the adoption of DFND based on CEVNI revision 5.

SLOVAKIA

Slovakia has implemented the current edition of DFND based on CEVNI revision 4, and, as the next step, already implemented CEVNI revision 5 in a full scale via national legislation. Slovakia contributes to the DFND expert group of DC and is an active promotor of the adoption of DFND based on CEVNI revision 5.

Figure 17 Convoy on the Danube



Source: iStock.

SWITZERLAND

Switzerland is member State of CCNR and, therefore, applies RPNR on the Rhine section. On Swiss national waterways — rivers and lakes, the national legislation from the formal point of view differs significantly from CEVNI.

The Swiss regulation on inland navigation does not follow for the structure of CEVNI, as it is intended to cover more fields of legislation than the traffic rules. It contains, for example, detailed provisions for testing the driving ability of boatmasters.

The Swiss regulations also cover: technical requirements for vessels, the procedure to issue vessel certificates, provisions for obtaining boatmaster certificates, conditions for commercial passenger transport, the liability insurance obligation, provisions for rafting, requirements for recreational craft, provisions for renting vessels, and requirements for navigational installations.

As far as the content is concerned, the general traffic rules are in line with commonly agreed principles. Especially, the provisions for Visual Signals (Marking) on Vessels are identical to annex 3, the Sound Signals are identical to annex 6, and the Waterway Signs and Marking are identical to annex 7 of CEVNI revision 5.²⁶

TURKEY

There is no indication that Turkey intends to apply CEVNI. However, Turkey reports deviations of its national legislation from CEVNI as contained in the CEVNI status document.

UKRAINE

For international waterways, Ukraine has implemented the current edition of DFND based on CEVNI revision 4. Ukraine contributes to the DFND expert group of DC. On national waterways, Ukraine intends to implement CEVNI revision 5 and has started work to bring the national regulations in line with CEVNI revision 5.

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

The United Kingdom of Great Britain and Northern Ireland does not apply CEVNI on its national waterways.

UNITED STATES OF AMERICA

The United States of America do not apply CEVNI. Nevertheless, the US Army Corps of Engineers (USACE), which is responsible for the maintenance of inland waterways, follows CEVNI to a large extent as far as waterway signs and markings are concerned. USACE also operates RIS along the big rivers which — via the Inland Electronic Navigation Charts — represent quasi-CEVNI coverage of a considerable part of the US rivers.

²⁶ "Binnenschifffahrtsverordnung, BSV" www.admin.ch/opc/de/classified-compilation/ 19780252/201704040000/747.201.1.pdfand "Ordonnance sur la navigation intérieure, ONI" www.admin.ch/opc/fr/classified-compilation/19780252/201704040000/747.201.1.pdf.

28 IMPLEMENTATION OF CEVNI — CHAPTER 4

4.2 SUMMARY FOR UNECE MEMBER STATES

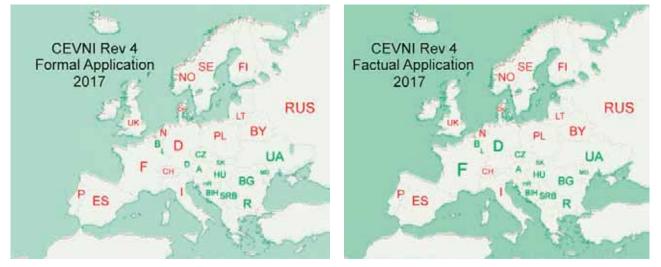
Figures 18 to 20 below summarize these findings across the ECE region.

Figure 18

Application of CEVNI revision 4 by member States in 2017

(a) Formal application

(b) Actual application



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source:* UNECE/vowi.

Figure 19

Application of CEVNI revision 5 by member States in 2017

(a) Formal application

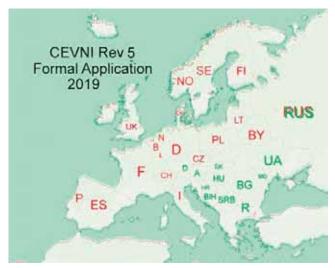
(b) Actual application



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. *Source*: UNECE/vowi.

Figure 20 Estimated application of CEVNI revision 5 by member States by 2019

Formal application



Note: Red indicates where CEVNI is not applied, green indicates where CEVNI is applied. Special case applies in the Russian Federation. *Source*: UNECE/vowi.

5. NATIONAL AND REGIONAL REQUIREMENTS THAT DEVIATE FROM OR ARE ADDITIONAL TO CEVNI

5.1 OVERVIEW OF CEVNI ARTICLES THAT HAVE DEVIATIONS AND/OR ADDED IN THE NATIONAL RULES

At a national level, there are a number of deviations, limited to single articles. In addition, several countries apply national and/or regional requirements that are additional to CEVNI. Recognizing the importance of the proper implementation process for CEVNI, SC.3 has been collecting and maintaining the information on the implementation of CEVNI by UNECE member States and River Commissions.

Information on such deviations had been initially introduced in CEVNI by means of footnotes. In each next revision, the number of footnotes was increased and rendered the text more difficult to understand. To resolve this, as well as to properly catalogue the deviations, the CEVNI Expert Group proposed to keep them in a special Chapter 9 titled "Regional and national special requirements" which was introduced first in CEVNI revision 4. It is stated in the Chapter that "the competent authorities may omit, complement or modify the provisions of Chapters 1-8 and, in particular, the provisions listed in this Chapter, when this is required by the conditions of navigation. They shall report on these differences, as well as the additional local requirements existing in their region, to the Working Party on Inland Water Transport (SC.3)" (Article 9.01).

UNECE regularly updates the list of these articles based on information from member States and River Commissions. Since 2010, the detailed information is collected and maintained in a document titled "Implementation of the European Code for Inland Waterways" (CEVNI status document). The most recent information was prepared for the sixty-first session of SC.3 and is available as ECE/TRANS/SC.3/2017/6 and ECE/TRANS/SC.3/2017/25.²⁷ This information is summarized in figure 21 below and includes information for: Austria, Croatia, Belarus, Belgium, Bulgaria, Czech Republic, Germany, Hungary, Lithuania, Netherlands, Romania, Russian Federation, Slovakia, Serbia, Turkey and Ukraine.

An example of marking deviations from CEVNI in national regulations applied by Austria is included in annex 1.

Detailed information on deviations and additional requirements applied by member States and River Commissions is provided in annex 2.

²⁷ www.unece.org/fileadmin/DAM/trans/doc/2017/sc3wp3/ECE-TRANS-SC3-2017-06e.pdf. www.unece.org/fileadmin/DAM/trans/doc/2017/sc3wp3/ECE-TRANS-SC3-2017-25e.pdf.

1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17
1.18	1.19	1.20	1.21	1.22	1.23	1.24						<u> </u>	I	I	I	
2.01	2.02	2.03	2.04	2.05			<u>.</u>	-	-		-	-	-	-	-	
3.01	3.02	3.03	3.04	3.05	3.06	3.07	3.08	3.09	3.10	3.11	3.12	3.13	3.14	3.15	3.16	3.17
3.18	3.19	3.20	3.21	3.22	3.23	3.24	3.25	3.26	3.27	3.28	3.29	3.30	3.31	3.32	3.33	3.34
3.35	3.36	3.37	3.38													
4.01	4.02	4.03	4.04	4.05	4.06	4.07										
5.01	5.02			-		-	-	-	-	-	-	-	-	-	-	
6.01	6.01bis	6.02	6.02bis	6.03	6.03 bis	6.04	6.05	6.06	6.07	6.08	6.09	6.10	6.11	6.12	6.13	6.14
6.15	6.16	6.17	6.18	6.19	6.20	6.21	6.21bis	6.22	6.22bis	6.23	6.24	6.25	6.26	6.27	6.28	6.28 bis
6.29	6.30	6.31	6.32	6.33	6.34	6.35	6.36	6.37								
7.01	7.02	7.03	7.04	7.05	7.06	7.07	7.08									
8.01	8.02															
10.01	10.02	10.03	10.04	10.05	10.06	10.07	10.08	10.09	10.10							

Figure 21 CEVNI articles that have deviations and/or added in the national rules of member States²⁸

Deviations mentioned in Chapter 9

Other deviations

Additional requirements

Provisions are applied in a full scope

Source: UNECE/vowi.

5.2 SUMMARY ANALYSIS

It can be seen from the information above that the majority of CEVNI articles have been harmonized and are applied by member States in full. Less than one-third (29 per cent) of the articles have differing national provisions and relate mainly to visual marking on vessels, sound signals, waterway signs and marking and the rules of the road. Most of them (25 per cent) are already listed in Chapter 9; however, some additional provisions can be found in the CEVNI status document.

At its sixty-first session, SC.3 adopted an amendment to CEVNI revision 5 containing provisions for vessels using LNG as a fuel on the basis of provisions in RPNR.²⁹ This increases the level of harmonization between CEVNI and RPNR, and the CEVNI Expert Group is currently working on the preparation of new amendment proposals. If implemented, convergence will increase further.

²⁸ A detailed list of RPNR provisions differing from CEVNI 4 (as of February 2013) can be found in Informal document SC.3/WP.3 No. 4 (2013).

²⁹ ECE/TRANS/SC.3/115/Rev.5/Amend.1.

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6. CEVNI AND PROFESSIONAL QUALIFICATIONS OF BOATMASTERS AND CREW MEMBERS

6.1 DIRECTIVES OF THE EUROPEAN UNION ON THE RECOGNITION OF PROFESSIONAL QUALIFICATIONS IN INLAND NAVIGATION

As a set of rules applied at the pan-European scope, CEVNI provides a common tool for checking the competencies of crews of inland vessels for navigation on European inland waterways ensuring the required minimum knowledge of the navigation rules. As such, CEVNI was mentioned in the European Union Council Directive 96/50/EC.

More recently, as a part of the policy areas of transport and employment, the European Commission proposed to establish a common system of qualifications for inland navigation crew based on acquired competence, to allow workers to move more freely where their skills are needed. This is duly reflected in the draft of a new Directive that would repeal Directive 96/50/EC, which provides for the existing system, covering only the profession of boatmaster and excluding certain key waterways.³⁰ The draft Directive seeks to establish a common system of professional qualifications and certificates for deck crew working in the inland waterway sector.

The provisions establish:

- Common standards for certificates for boatmasters and other persons involved in the operation of a vessel navigating on inland waterways of the European Union, based on their competences;
- Common criteria and procedures for the assessment of required competencies;
- Criteria ensuring that requirements related to the knowledge of specific situations on specific inland waterway stretches are proportionate to their safety goal.

The future directive on the recognition of professional qualifications in inland navigation will contain an indirect reference to CEVNI in the main text and a direct reference in recital.

6.2 CEVNI KNOWLEDGE TESTS FOR RECREATIONAL BOATERS

An International Certificate for Operators of Pleasure Craft (ICC), issued in accordance with resolution No. 40, provides the holder with evidence of competence for the operation of pleasure craft. It can be issued for inland waters and/or coastal waters; for this purpose, applicants must have demonstrated sufficient knowledge of the traffic regulations applicable on inland or coastal waters, respectively. ICC is recognized by more than 25 UN Member States both within and outside the ECE region.

The requirement to have demonstrated the knowledge of the traffic regulations applicable on inland waters, in particular CEVNI — poses a problem for countries which have not implemented CEVNI.

³⁰ 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.

For this purpose, consultation was undertaken with the representative of the European Boating Association (EBA) as representative organisation of recreational boat users in Europe to understand CEVNI implementation views from EBA members in Austria, Finland, Iceland, Netherlands, Norway, Spain, Sweden, Poland and the United Kingdom of Great Britain and Northern Ireland.

Some of the countries that apply resolution No. 40, have not implemented CEVNI on their inland waterways or may have no navigable inland waterways. In this case, in order to issue ICC for inland waters, they can develop their own CEVNI test specifically for issuing ICC, or, alternatively, recognize the outcome of the CEVNI test adopted in another country.

Norway and Iceland do not offer their own CEVNI test, while the United Kingdom of Great Britain and Northern Ireland has elaborated a CEVNI test which must be successfully completed to obtain an ICC valid for inland waters.

Danish associations have an informal system to assist boaters developing a proficiency in CEVNI, as the Danish Government has not yet adopted resolution No. 40; these associations are trying to encourage the Government to do so.

In Finland, the regulations for inland waterways are based on COLREG together with some CEVNI signs. Light signals at movable bridges and locks are, however, completely different and the waterways are marked in accordance with IALA System A. As mentioned in Chapter 4, some parts of CEVNI have been translated into Finnish and are maintained in line with CEVNI 5, for the purpose of CEVNI knowledge tests for recreational boaters.

Austria has additional requirements, e.g. wearing lifejackets in locks and having a knife or another appropriate device at hand to cut the tow line of a water-skier.

ICC, therefore, contributes to disseminating the knowledge of CEVNI in Europe and worldwide. However, recreational boatmasters believed that some of the CEVNI rules can be longwinded, dependent on many variable conditions and as a result unclear. Overtaking was given as a specific example where the respective provision of the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG) is much less complicated. Aligning CEVNI as closely as possible with COLREG would be welcomed by them as would standard rules for all European inland waterways.

Visiting boaters from countries that do not implement CEVNI tend to learn CEVNI and they find the array of national and regional regulations difficult. Whereas CEVNI is available in several languages, national and regional (River Commissions') regulations frequently are only available in the language of that country. This makes it difficult for visiting recreational boaters to establish how the rules differ from CEVNI and makes it difficult for visiting recreational boaters to comply. It was suggested that it would be much simpler if there was one unified system.

In summary, it is a challenge to know which regulations apply where, and language barriers make it difficult to ensure that the right regulations are followed in each region/country. Recreational boaters would appreciate it if CEVNI was more like COLREG with fewer (if any) variations from country to country and from region to region. Following on from this, SC.3 may consider drafting CEVNI examination modules or guidelines to be used in the procedure of obtaining certificates for pleasure craft operators according to resolution No. 40.

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7. CEVNI OUTSIDE UNECE

7.1 **RIVER INFORMATION SERVICES**

UNECE resolutions establishing the CEVNI rules and the Signs and Signals on Inland Waterways (SIGNI) (SIGNI, resolution No. 22, and resolution No. 59) provide the system of signs and marking which is used as a background for River Information Services (RIS) and, in particular, Inland Electronic Navigational Charts (Inland ENCs). As a result, all inland waterways covered with inland ENCs may be considered as covered with CEVNI.

RIS are a valuable contribution to navigation safety. Information for the boatmasters of vessels are provided in an electronic format that should be simple to understand and should contain information about the waterway, the navigation conditions, the traffic rules, and about other traffic on the river. RIS has proved to be an excellent basis for such information and Inland ENC is applied in many countries worldwide. It contains traffic rules information according to CEVNI and SIGNI.

7.2 INLAND ENC AND INLAND ENC HARMONIZATION GROUP

An Inland ENC contains the fairway information, in particular, geographic and hydrographic data, as well as traffic management information. This traffic management information is based on the traffic rules applied: e.g., light signals, table signs are derived from CEVNI.

An example of Inland ENC is shown in figure 22.

Figure 22

Inland ENC of the Danube section



Source: vowi.

The Encoding Guide and Feature Catalogue of the Inland ENC Harmonization Group (IEHG) refers to the classification of European inland waterways according to the European Conference of Ministers of Transport (CEMT) (Resolution No. 30) and CEVNI as Inland ECDIS concerned documents,³¹ and the IENC encoding table applies signs from annexes 7 and 8 to CEVNI.³²

The Group was formed in 2003 by North America and Europe to facilitate the development of international standards for Inland ENC data. The Russian Federation joined IEHG soon after that, Brazil in 2007, China in 2009, Republic of Korea in 2010, Venezuela and Peru in 2011.

IEHG is comprised of representatives from the government, industry and academia. European participants take part on behalf of the European Inland ECDIS Expert Group. The North American participants are members of the North American Inland ENC Ad Hoc working group that was formed in 2002. IEHG meets once per year. However, most of the work is carried out remotely.

The goal of IEHG is to agree upon specifications for Inland ENCs that are suitable for all known Inland ENC data requirements for safe and efficient navigation. Originally, it dealt with European, North and South American and Russian waterways. However, this standard meets the basic needs for Inland ENC applications worldwide. As such, the Inland ENC standard is flexible enough to accommodate additional inland waterway requirements in other regions of the world. IEHG is recognized as a Non-Governmental International Organization (NGIO) by the International Hydrographic Organization (IHO).³³

Current members of IEHG are all member States of the European Union with connected inland waterways (17), Russian Federation, United States of America, Brazil, China, Republic of Korea, Peru and Venezuela.³⁴

IEHG submits Inland ENC standards for formalization to interested international organisations like IHO, the European Commission, CCNR, DC, UNECE, the Mekong River Commission, and to national competent authorities.³⁵

7.3 **REGULATORY IMPACT OF CEVNI AND THE COVERAGE**

7.3.1 UNITED STATES OF AMERICA

In the United States of America, 20 inland waterways totalling more than 11,000 km are covered with Inland ENCs as shown in figure 23 below. The US Army Corps of Engineers (USACE) is responsible for the production and provision of Inland ENCs.

³¹ http://ienc.openecdis.org/?q=content/inlandecdis-concerned-papers.

³² http://ienc.openecdis.org/downloads/CEVNIextendedCodingTable.pdf.

³³ http://ienc.openecdis.org/?q=content/iehg.

³⁴ http://ienc.openecdis.org/files/IEHG_members.pdf.

³⁵ The full list of international and national organizations is available at http://ienc.openecdis.org/?q=content/links.

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Figure 23

Coverage of inland waterways of the United States of America by Inland ENCs



Source: USACE.

7.3.2 RUSSIAN FEDERATION

In the Russian Federation, out of total 102,000 river kilometres (rkm), national Inland ENCs are available for approximately 22,000 rkm of the European part of Russian waterways and for approx. 39,000 rkm of Siberian and Far East rivers, as shown in figures 24 and 25. All Inland ENCs are produced according to IHO Standard S-57, edition 3.1, and national Regulation Documents for Inland ENCs.

The production of Inland ENCs is carried out within the framework of the Federal Task Programme on the Global Navigation Satellite System (GLONASS) (Government Regulation No. 587).

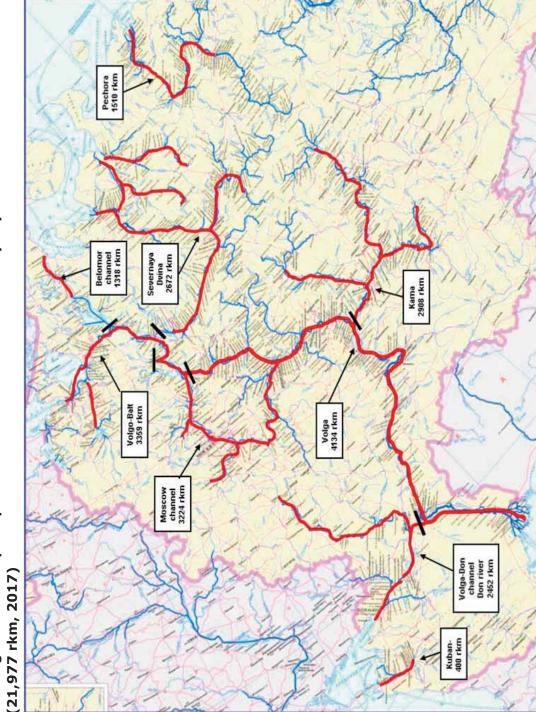
7.3.3 BRAZIL

In Brazil, the Directorate for Hydrography of the Brazilian Navy (DHN) is responsible for the production and provision of Inland ENCs. The DHN gathers data for Inland ENC for approximately 4,000 km of inland waterways out of more than 60,000 km of the total length. They are shown in figure 26.

7.3.4 EUROPEAN UNION

In the European Union, 10,250 km out of more than 37,000 km of inland waterways are covered by inland ENCs. Figures 27 and 28 show chart zones of the Rhine and Eastern Europe covered with Inland ENCs supplied by Periskal, one of Inland ENC providers.³⁶

³⁶ www.periskal.com/en/inland-skippers/products.



Coverage of the European part of the Russian inland waterways by Inland ENCs Figure 24

Note: — means the delimitation of inland waterway districts. *Source:* The Volgo-Baltic Waterway, 2017.

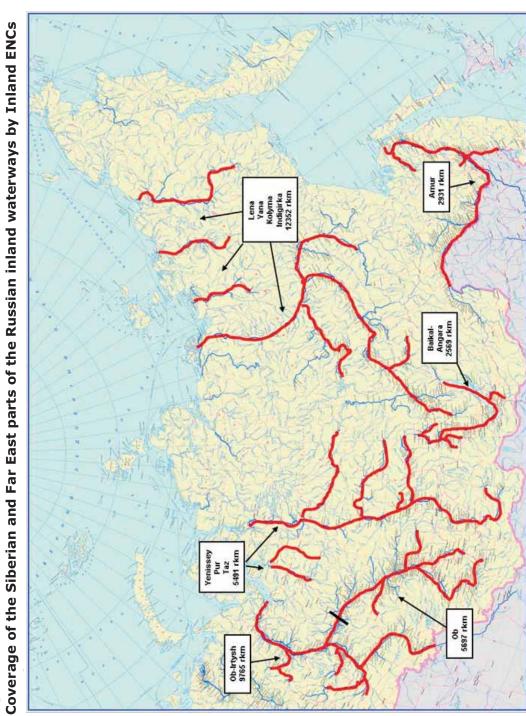
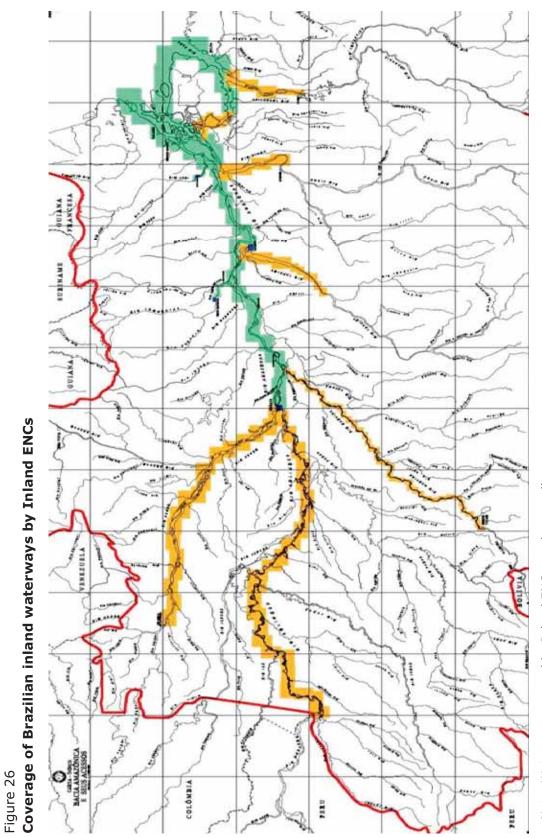




Figure 25

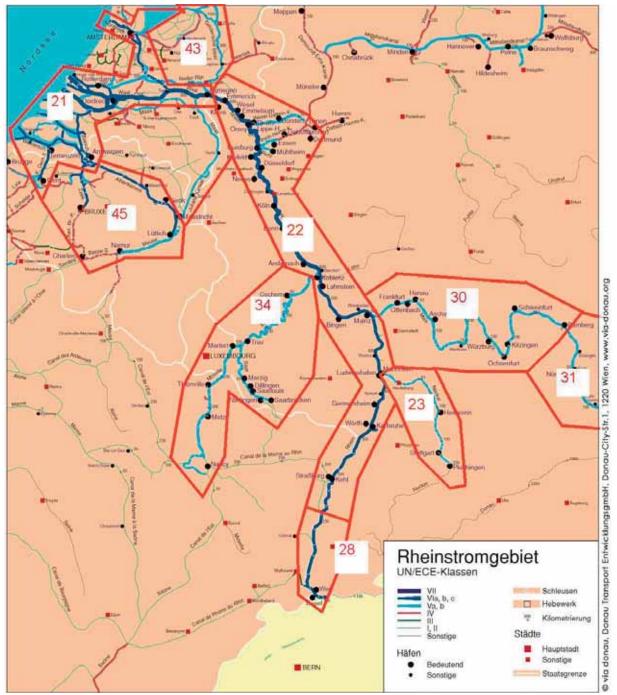






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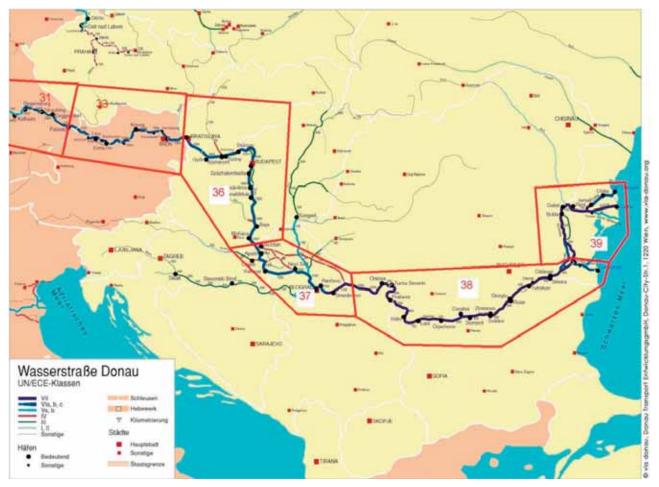
Zones:

- 21. Netherlands main waterways
- 22. Rhine: Millingen till Iffezheim [km 340 860]
- 23. Neckar [km 0 202]43. East Netherlands28. Upper Rhine: Iffezheim till Rheinfelden [km 340 160]45. Belgium Middle-East30. Main: Mainz till Bamberg [km 0 384]

Source: Periscal/viadonau.

- 31. Main-Danube Canal and Danube
- 34. Mosel and Saar

Figure 28 Chart zones in Eastern Europe



Zones:

- 31. Main-Danube Canal and Danube
- 33. Danube Austria [km 2200 1873]
- 36. Danube Slovakia and Hungary [km 1873 1425]
- 37. Danube Serbia and Croatia [km 1425 1080]
- 38. Danube Romania and Bulgaria [km 1080 300/Constanza]
- 39. Danube Black Sea estuary [km 300 0]
- Source: Periscal/viadonau.

7.3.5 MEKONG RIVER BASIN

A project on the harmonization of aids to navigation (AtoNs) along the Greater Mekong River has been undertaken by ESCAP and the Mekong River Commission (MRC) in order to collect information and demonstrate the approaches for the development of an AtoN system or harmonization of national or regional systems. The project was funded by the Governments of Finland and Netherlands.

The Mekong River flows through Cambodia, China, the Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam, and river transport has acquired an important role in the Mekong Delta and has grown rapidly in the Upper Mekong area. However, the vital regulatory system and technical standards have not yet been established at the sub-regional level and no

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harmonized system of aids to navigation have been identified on the Mekong River or other international navigable rivers in the ESCAP region.

In 2001, the Guidelines for the Harmonization of Navigation Rules and Regulations on the Mekong River was published as an output of the ESCAP/MRC project. This study encouraged the compatibility of aids to navigation as well as of the traffic rules with existing European and North American systems.³⁷ Some examples of navigation signs used in the Mekong Delta region, Viet Nam, are given in figure 29.

Figure 29

Navigation signs in the Mekong Delta region, Viet Nam

(a) Signs on the road bridge (the Can Tho River)



(b) Bank mark



Source: iStock.

³⁷ www.unescap.org/sites/default/files/pub_2186_almostfull.pdf.

8. RECOMMENDATIONS FOR FURTHER PROMOTION OF CEVNI

Neither boatmasters nor the experts of the various national or international groups who are responsible for regulations on traffic rules, know all the differences between the local regulations and CEVNI. Most of the skippers know the version of the traffic regulations which is valid in their own country, and they assume that the regulations of other countries are more or less similar. Most of them are aware of some of the most important deviations in other countries, but often they do not know all the differences. Therefore, the boatmasters of two vessels on international waterways are often acting on the basis of different traffic regulations. This introduces considerable uncertainty and raises potential safety concerns.

It will be significantly difficult to bypass all local deviations and amendments and to agree on one common set of traffic rules for all inland waterways in Europe. It would be more desirable that the competent authorities and the international organisations rely on CEVNI as one common set of rules.

Nevertheless, boatmasters need a practical and comfortable source of information about the rules in force on a given section of a certain European waterway.

To ensure the necessary transparency, whether CEVNI becomes an international agreement or not, a depository is needed to keep track of the implementation of CEVNI, and of all deviations from CEVNI as well as additional requirements in river basin/regional/national regulations. In addition, national and international organizations should commit themselves to report all deviations to this "depository" — which could be UNECE — to allow the creation of a web-based information tool for boatmasters.

Ideally, this could be achieved by elevating the status of CEVNI to an international agreement representing a blueprint regulation which is accessible for River Commissions and national governments to amend the rules according to regional, national and local needs. The notification of such amendments to the depository would need to be in compliance with common standards and potentially made obligatory to allow the provision of reliable information about the legal requirements on any location of any inland waterway in Europe.

River Commissions and administrations of member States may consider that agreeing on CEVNI as an international agreement would restrict the necessary flexibility for river basin specific, regional or national deviations. Admittedly, additional needs could arise and the question of justification of differing requirements must be addressed. Such agreement need not restrict the amendments necessary from the nautical and safety point of view, taking into account the specific requirements of the river section or river basin.

Furthermore, national and international bodies should be encouraged to include the original text of CEVNI as part of their regulations and to clearly indicate all the amendments and deviations which they deem indispensable, to ensure safety on their specific waterways.

Given this, the following **recommendations** could be considered:

- Efforts should be made to prevent misunderstanding between boatmasters;
- A system should be set up where all boatmasters are aware of the local rules;
- Activities of the CEVNI Expert Group should be continued; all River Commissions and member States should be encouraged to delegate their experts on a permanent basis;

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- Boatmasters should be involved in the CEVNI Expert Group to ensure the maximum possible use of practical experience which is vital for drafting favourable rules and will facilitate its acceptance;
- · Immediate response to technical innovation should be ensured;
- The document should evolve into a live version, without formal revisions;
- Ensuing transparency remains central to the work related to CEVNI and this should continue;
- All parties should further facilitate access to the applicable traffic rules;
- Member States should consider the creation of a database-oriented information system for boatmasters. RIS could be a good background for this, as Inland ECDIS, as background for RIS, is already referring to CEVNI;
- Work should continue on minimizing the number of national and regional requirements deviating from CEVNI. This remains as long term goal but should remain a priority for SC.3;
- Possible upgrade of CEVNI to an international agreement, following the examples of aviation and road transport.

CEVNI has proven to constitute an important part of legislation which justifies every effort to maintain this document while pursuing maximum transparency. To make best use of these traffic rules, member States should consider in more detail the potential benefits and costs of converting CEVNI into an international agreement, similar to the Vienna Convention on road traffic, and possibly come back to this issue in the near future.

Figure 30 Nizhny Novgorod, the Volga, the Russian Federation



Source: iStock.

ANNEXES

ANNEX 1

EXAMPLE FOR MARKING DEVIATIONS FROM CEVNI IN NATIONAL REGULATIONS

In chapter 9 of CEVNI, "Regional and national special requirements", it is stated that the national and international bodies should include the original text of CEVNI as part of their regulations and to clearly mark all the amendments and deviations they deem indispensable to ensure safety on their specific waterways.

One of the possible ways to realise this is shown in an example from national legislation of Austria.

The Austrian Waterway Traffic Regulations (Wasserstrassenverkehrsordnung)³⁸ which is the regulation implementing CEVNI for the Austrian waterways (the Danube, sections of the Enns, the Traun, and the March) reproduces the text of CEVNI as a main text.

If there are slight differences between CEVNI and DFND, the paragraph begins with "On the Danube, \dots ".

If there are differences or additional requirements on a national basis, the respective paragraph begins with "In Austria, ...".

All articles deviating from CEVNI or additional to it, are reported to SC.3 and can be found in the CEVNI status document. They are listed in annex 2 below.

³⁸ www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20007447.

IMPLEMENTATION OF CEVNI — ANNEX 2

ANNEX 2

CEVNI ARTICLES THAT HAVE DEVIATIONS AND/OR ADDED IN THE REGULATIONS OF MEMBER STATES

I. DEVIATIONS FROM CEVNI ACCORDING TO CHAPTER 9

High-speed vessel stated in certificate (Article 1.01(I), para. 5): Austria, Belarus, Croatia, Hungary, Lithuania, Romania, Russian Federation, Serbia (envisaged by new draft legislation), Slovakia, Turkey.

Definition of small craft (Article 1.01(I), para. 10): Austria, Belarus, Lithuania, Netherlands, Russian Federation.

Definition of water bike (Article 1.01(I), para. 11): Austria (length < 4 m = "assembly of floating material"), Belarus ("hydro cycle"), Bulgaria ("jet"), Czech Republic (reference to EU Directive 2013/53/EU), Germany ("water motorcycles"), Netherlands ("water scooter"), Romania, Serbia ("Scooter"), Turkey, member States of MC (water bike = small craft).

Boatmaster requirement for assemblies of floating material and non-motorized vessels in certain side-by-side formations (Article 1.02): Belgium, Croatia, Germany, Lithuania, Turkey, Ukraine.

Minimum age for steering small craft (Article 1.09): Austria (authorized public events, persons under supervision), Belarus, Belgium, Bulgaria (18 years), Croatia (15 years for craft length 6 m and less), Czech Republic: (15 years — up to 4 kW/t), Germany, Hungary (small craft without own engine), Netherlands (vessels without propulsion, excluding sailing boats more than 7 m: no age limit; sailing boats more than 7 m: 16 years; small motor boat less than 7 m and max. 13 km/h: 12 years; large vessel: 16 years; any high speed small craft: 18 years; high speed vessels: 18 years), Romania, Russian Federation (18 years), Serbia (16 years for small craft of up to 2.9 kW and 18 years for small craft of unlimited power), Turkey, Ukraine (18 ears), member States of MC (no provisions for small craft without own engine).

Additional documents on board of the vessel (Article 1.10, para. 1): Austria, Belarus, Belgium, Bulgaria, Croatia, Germany, Hungary, Lithuania, Netherlands, Romania, Russian Federation, Serbia, Turkey, Ukraine, member States of MC (the prescriptions are complicated and differ in many points, therefore no detailed reference is given).

No marks and draught scales on small craft (Article 2.02): Belarus, Belgium (racing and training rowing boats, canoes and kayaks, gondolas and pedalos, sailboards and surfboards, including surfboards with engine, inflatable boats not suitable to be propelled by an engine, rafts, small vessels < 2.5 m in length, with the exception of water scooters), Croatia (non-motorized small craft with length 3m and less), Hungary, Netherlands (marks are only required for large vessels and high-speed small craft), Romania, Turkey.

ENI on anchors is not required (Article 2.05): Belarus, Bulgaria, Romania, Russian Federation.

No day markings on vessels under way (Chapter 3, Section II): Belarus, Germany (for dragging of side-by-side formations (article 3.11, para. 2, for ferry-boats (article 3.16); no alternative marking foreseen in the cases mentioned in article 3.20 paragraph 1 (sentence 2) and article 3.20, paras. 2 and 3, vessels with limited manoeuvrability, fishing vessels which drag nets, vessels engaged in mine-sweeping operations or pilotage service), Romania, Turkey, Ukraine (no day markings except for articles 3.27, 3.28 and 3.36 para. 1), member States of MC (day markings only for towed convoys, pushed towed convoys, vessels carrying certain dangerous goods, passenger ships with a length of less than 20 m, priority vessels, vessels under way which are impossible to control).

Different stern lights (Article 3.08, para. 1): Belarus, Czech Republic, Germany, Lithuania, Romania, Russian Federation, Turkey.

Height of masthead light less than 5 meters (Article 3.08, para. 1): Bulgaria, Germany (no height requirement), Romania, Russian Federation, member States of MC (vessels < 40 m in length), ISRBC.

Upper masthead light less than 5 m (Article 3.09 para. 1 (a)): Czech Republic (4 m), Germany (no height requirement), Romania, Russian Federation, member States of MC (vessels < 40 m in length).

Bright lights on narrow waterways (Article 3.10 para. 1): Russian Federation, Serbia, Turkey.

Pusher to carry masthead and side lights (Article 3.10 para. 1): Belarus, Czech Republic, Germany (no height requirement), Russian Federation, Serbia, Turkey, Ukraine.

Side-by-side formation not exceeding 110 m in length and 23 m in width is considered as a single motorized vessel (Article 3.11): Austria (up to 12 m width), Croatia, Czech Republic, Germany (pushed convoy up to 12 m width), Hungary (up to 12 m width), Turkey.

Different marking of transport of dangerous goods by sea-going vessels (Article 3.14): Belgium, Lithuania, Romania, Serbia, Turkey, Ukraine.

Different marking for ferry-boats (Article 3.16): Belarus (yellow light), Czech Republic (white lights and green ball), Germany (no day mark required), Russian Federation, Turkey, MC (no day mark required, no side lights and astern light, height of the white light reduced for ferry < 15 m in length).

No black ball by day for small craft other than ship's boats (Article 3.20, para. 4): Austria (if moored in one breadth on a floating establishment), Croatia, Czech Republic, Germany, Hungary, Romania (if moored), Serbia, Turkey.

Yellow scintillating light for fire-fighting and rescue vessels (Article 3.27): Austria (red scintillating light), Hungary (no generally, but the competent authority may grant on request), Lithuania, Turkey.

Radiotelephone installations according to the Regional Arrangement concerning the Radiotelephone Service on Inland Waterways concluded in Basel on 6 April 2000 (Article 4.05): Austria, Belgium (for motorized small craft < 7 m in length — one mariphone), Bulgaria, Croatia, Czech Republic, Germany, Hungary, Lithuania, Netherlands, Romania, Serbia, Slovakia, Turkey, MC (referring to EU Directive 1999/5/EC — currently under consideration), ISRBC.

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High-speed vessels without radar and rate-of-turn indicator (Article 4.06): Belarus (no provision for radar rate-of-turn indicators), Lithuania, Romania.

AIS Class A instead of Inland AIS, Using AIS Class B, Switching off AIS on stationary vessels, derogations for other vessels, using local frequencies instead of AIS 1 and AIS2 (Article 4.07): Austria, Belarus (no legislation), Belgium (no AIS obligation yet), Czech Republic, Hungary (switching off in in berthing areas or ports, no obligation for ferry boats), Russian Federation (AIS only for cargo vessels with gross tonnage > 300), Slovakia (switching off for stationary vessels), ISRBC (switching off for stationary vessels).

Additional waterway signs and marking (Article 5.01, para. 2): Austria (Struden light signals), Belarus, Germany, Netherlands (Notices to Skippers with the same legal status as a sign), Romania, Russian Federation (mainly for sections with one-way traffic), Ukraine.

Specific rules applicable to small craft (Article 6.02): Austria (prohibition of overtaking (Article 6.11) not applicable to vessels overtaking small craft), Czech Republic (restricted areas for specific sports activities, e.g. water skiing), Germany, Hungary, Netherlands (high-speed vessels must always give way to small craft), Romania, Russian Federation, Turkey, Ukraine, MC (requirements applicable to small craft are included in article 6.02 and 6.02bis).

Exceptions to the rules on meeting of vessels (Article 6.04): Germany, Netherlands (for small craft, sailing vessels and vessels propelled by muscular strength), Turkey, member States of MC.

Special rules for the meeting of vessels (Article 6.05): Germany, Netherlands (provisions for vessels passing each other starboard/starboard — blue sign), Turkey, member States of MC.

If signs cannot be displayed, authorization of competent authority to proceed is **necessary** (Article 6.08): Austria, Belarus, Bulgaria, Croatia, Hungary, Romania, Slovakia, Turkey.

Different exception for prohibition of overtaking (Article 6.11, sub-para. (b)): Croatia, Netherlands (exception for pushed barges up to $110m \times 12 m$), Serbia (exception for side-by-side formations up to $110 \times 12 m$), Turkey, Ukraine.

Special rules for passing (Article 6.22bis): Belarus, Germany, Netherlands (rules comply with CEVNI), Romania, Turkey, Ukraine.

Prohibition of longitudinal cable for ferry-boats (Article 6.23, para. 2 (b)): Bulgaria, Belarus, Hungary, Romania, Serbia.

Special rules for passage under bridges (Articles 6.24 to 6.26): Belarus, Belgium, Germany, Netherlands (use of sound signals for opening bridges), Romania, Ukraine, MC (passage through cradle locks).

Special rules for the passage through weirs (Article 6.27): Belarus, Belgium, Germany, Netherlands, Romania, Ukraine (no provisions), member States of MC (passage through weirs is prohibited).

Special rules for the passage through locks (Article 6.28): Austria, Belarus, Belgium, Czech Republic (additional instructions), Germany, Netherlands (use of sound signals for opening locks), Romania, Russian Federation, member States of MC (usable length of the locks).

Special rules for entering and leaving locks (Article 6.28bis): Austria, Belarus, Belgium (two fixed green lights = continue through, the lock is open at both ends and will not be actuated), Germany, Netherlands, Romania, Ukraine (no provisions).

Other general rules for navigation in reduced visibility (Article 6.30): Austria (pleasure craft with a length of not more than 20 m to clear the fairway), Belarus, Belgium, Germany (article 6.30 para 4 and 5 not included), Netherlands (no obligation to navigate by radar, special rules for vessels not navigating by radar), Romania, Turkey.

No three-tone signal or only on certain waterways (Article 6.32): Belarus (no provisions), Belgium (one long blast of the horn, repeated; no distinction between upstream and downstream), Czech Republic, Germany, Lithuania, Netherlands (one long tone, for ferries one long tone followed by four short tones), Romania, Turkey, Ukraine, member States of MC (no three-tone signal).

Additional provisions for vessels navigating by radar (Article 6.32): Belarus (no provisions), Belgium, Germany, Romania, Turkey.

Vessel carrying the boatmaster to sound two long blasts (Article 6.33): Bulgaria, Czech Republic, Romania, Russian Federation (one short blast, two long blasts), Serbia, Turkey.

All engines and auxiliary machinery to be stopped or unplugged if the vessel has **stopped** (Article 8.01, para. 4): Czech Republic, Hungary (for berthing vessels), Slovakia (in case of an accident), ISRBC.

No safety checklist for bunkering fuel (Article 10.07, para. 3):³⁹ Belarus, Belgium (required in some seaports), Bulgaria, Czech Republic, Hungary, Romania (operational procedures are required), Russian Federation.

³⁹ Not covered by Chapter 9 in CEVNI 5.

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II. OTHER DEVIATIONS FROM CEVNI THAN THOSE ACCORDING TO CEVNI CHAPTER 9

AUSTRIA

- Minimum age for boatmaster of a high-speed vessel
- Priority of passage through a lock
- Life jacket obligation during locking on the deck of pleasure craft with a length of less than 20 $\rm m$
- Prohibition of bunkering in locks
- Permission for mooring at berths

BELARUS

- Minimum age requirements for boatmasters
- Documents to be carried on board
- · Identification marks on vessels and anchors
- Night marking of vessels
- Navigation under reduced visibility
- Lock signals

BELGIUM

- Sound signals
- No passing starboard to starboard
- Towed convoys navigation by radar

NETHERLANDS

Comparison document under preparation

RUSSIAN FEDERATION

High-speed vessel speed > 35 km/h

UKRAINE

- Rules for small craft
- Passage under fixed bridges, through movable bridges and through weirs
- Priority of passage through locks
- Navigation by radar

INTERNATIONAL SAVA RIVER BASIN COMMISSION

- Additional local requirements for the sectors "Mouth of the Sava River", "Upper Sava" and "Kupa"
- Provisions on river surveillance.

III. NATIONAL AND REGIONAL REQUIREMENTS ADDITIONAL TO CEVNI CHAPTERS 1-8

AUSTRIA

- Surf boards, unmanned towing and water ski towing gear, water bikes with a length of less than 4 m and amphibious craft and other floating land vehicles considered as floating establishment
- Boatmaster of a commercial vessel or convoy on duty for more than 16 hours within 24 hours is considered as in a state of fatigue in any case
- Alcohol level limits
- Noise limits for pleasure craft
- Use of systems that determine the course and speed of a vessel or convoy based on geo referenced data without intervention of the boatmaster in the ongoing operation (automated track control) prohibited
- Night marking of moored vessels
- Transmission and update of additional Inland AIS data (maximum static draught, number of blue cones/lights)
- Pushed convoys not allowed to tow
- Use of telescopic spuds
- Water-skiing a knife or another appropriate device at hand to cut the tow line

BELGIUM

- Requirements for boatmasters
- Position of boatmaster, viewing or listening post
- Locking procedure.

NETHERLANDS

• Comparison of the national rules CEVNI 4 under way.

CENTRAL COMMISSION FOR THE NAVIGATION OF THE RHINE

 List of deviations of the Police Regulations for the Navigation of the Rhine (RPNR) from the provisions of CEVNI 4 submitted by CCNR in February 2013 as Informal document SC.3/WP.3 (2013) No. 4.

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IV. DEVIATIONS AND/OR ADDITIONAL REQUIREMENTS COMPLEMENTING CEVNI CHAPTER 10

BELARUS

- Belarusian legislation corresponding to CEVNI Chapter 10
- No used-oil log required
- No unloading certificate for the disposal of waste required

BELGIUM

- Chapter not adopted into Belgian legislation
- Belgium is a signatory to the CDNI Convention
- Specific requirements for certain harbours

ANNEX 3

WORKSHOP "INLAND NAVIGATION RULES: IMPLEMENTATION OF THE EUROPEAN CODE FOR INLAND WATERWAYS" (4 OCTOBER 2017, GENEVA)

I. OUTCOME OF THE WORKSHOP

The workshop "Inland Navigation Rules: Implementation of the European Code for Inland Waterways" was held in on 4 October 2017 at the sixty-first session of SC.3.⁴⁰ The programme included the report on the present study and interventions of IALA, DC, ISRBC, the Inland Waterway Transport Educational Network (EDINNA) and Maritieme Academie Harlingen, and EBA.⁴¹ All presentations are available on the UNECE website. The presentations were followed by a round table discussion moderated by Mr. R. Vorderwinkler.

The participants were invited to complete a questionnaire to provide their views on different aspects related to the practical value, implementation of CEVNI and further steps.

1. Among the respondents, 12 in total, 100% considered that **the main practical value of CEVNI** was ensuring harmonized standards for navigation safety, 83% mentioned the unification of vessel's documents and procedures, 75% mentioned its contribution to regional and national regulations, 67% — preventing accidents on inland waterways, 50% — protection against pollution from vessels and ensuring common education standards and competencies of crews, 42% — enhancing security, 33% — support of shipping authorities, 17% — promoting the development of container transport and 8% — promotion of modern techniques and innovations.

2. Respondents mentioned the following ways of **introducing CEVNI into national legislation**:

- By harmonizing national/regional regulations with CEVNI 50%;
- Through the Rules of River Commissions harmonized with CEVNI 42%;
- By implementing CEVNI directly by the Governmental Decree -25%.

As an alternative, direct implementation of DFND and partial implementation of CEVNI in the national legislation were mentioned.

⁴⁰ ECE/TRANS/SC.3/205, paras. 13-27.

⁴¹ Presentations are available at www.unece.org/trans/main/sc3/sc32017.html (tag "Workshop").

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3. Respondents highlighted through the survey to what extent their national legislation was **harmonized with CEVNI provisions**:

	CEVNI revision 4	CEVNI revision 5
Fully harmonized	25%	8%
Mostly harmonized (> 50%)	8%	8%
Almost fully harmonized, with special provisions	17%	-
Partly harmonized (< 50%)	25%	33%

It was mentioned by some respondents that this work was planned in future.

4. Concerning the **applicability of CEVNI for the assessment of professional competencies**, 67% were of the opinion that the knowledge of CEVNI could represent the knowledge of traffic rules in the assessment of professional competencies of boatmasters at the pan-European level at the full extent, but the knowledge of special provisions should be checked; 33% considered that it was true at the pan-European level without checking the knowledge of special provisions, 25% considered that it could be applied at the national/regional level, with additional checking the knowledge of special provisions, 8% were of the opinion that it could be applied at the national/regional level, with additional checking the knowledge of special provisions, 8% were of the opinion that it could be applied at the national/regional level and 8% considered that it was not applicable for this purpose.

5. As possible ways of making CEVNI **more viable and user-friendly**, the respondents mentioned:

- Elevating it to the status of an international agreement -75%;
- Disseminating information about CEVNI by means of workshops and other events at the national and international level — 33%;
- Updating the provisions of CEVNI with due regard of current situation and recent developments 25%;
- Minimizing and/or eliminating a number of special provisions at the national/regional level — 17%;
- Making it more available and developing user-friendly interfaces 17%;
- Making CEVNI available in other languages 8%.

8% were of the opinion that there was no need to undertake further actions.

6. Among **future challenges and developments** that could be relevant to CEVNI, the respondents considered:

- The role of vessels using LNG as a fuel 75%;
- Visualization of signs and marks, virtual AtoNs and other RIS developments 58%;
- The integration of IALA provisions applicable to inland waterways and coastal waters 42%:
- Security provisions 25%;
- Cold ironing 25%;
- Vessel documents 17%.

8% were of the opinion that there was no need to introduce any other amendments.

7. 92% of the respondents considered that the workshop was useful, and such practice should be continued regularly, 17% were of the opinion that such workshops should be held after the adoption of a new CEVNI revision, 8% considered that one workshop was sufficient and 8% that such workshops should be held not at the sessions of SC.3, but between them.

II. QUESTIONNAIRE FOR THE WORKSHOP "INLAND NAVIGATION RULES: IMPLEMENTATION OF THE EUROPEAN CODE FOR INLAND WATERWAYS"

Question 1: In your opinion, what is the practical value of the unified navigation rules for inland waterways?

Ensuring harmonized standards for navigation safety Promotion of modern techniques and innovations Unification of vessel's documents and procedures Protection against pollution from vessels Contribution to national/regional regulations Ensuring common education standards and competencies of crews Preventing accidents on inland waterways Promoting the development of container transport Support of shipping authorities Other value (please indicate) Not applicable

Question 2: How the CEVNI provisions are introduced in the national legislation and in the Regulations of River Commissions?

By harmonizing national/regional regulations with CEVNI By implementing CEVNI directly by the Governmental Decree Through the Rules of River Commissions harmonized with CEVNI Following another procedure (please specify) They are not introduced in the national legislation Not applicable

Question 3: In your opinion, to what extent the national legislation of your country is harmonized with CEVNI? (CEVNI 4/CEVNI 5)

Fully harmonized (100%) Almost fully harmonized, but special provisions for particular waterways/waterway sections are applied Mostly harmonized (> 50%) Partly harmonized (< 50%) Not harmonized If no, is this work planned in future? Not applicable

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Question 4: In your opinion, can the knowledge of CEVNI represent the knowledge of traffic rules in the assessment of professional competencies of boatmasters and to what extent?

Yes, to the full extent, at the pan-European level

Yes, to the full extent, at the national/regional level

Yes, at the pan-European level, however, in addition the knowledge of special provisions should be checked

Yes, at the national/regional level, however, in addition the knowledge of special provisions should be checked

Yes, but for particular provisions only (please indicate)

No, the knowledge of CEVNI cannot be used for this purpose

Each country should determine which documents should be used

Other

Not applicable

You are kindly requested to provide comments, if any

Question 5: In your opinion, how to make CEVNI more viable and user-friendly?

By granting a status of an international agreement

By minimizing and/or eliminating a number of special provisions at the national/regional level

By disseminating information about CEVNI by means of workshops and other events at the national and international level

By making CEVNI available in other languages (please indicate)

By updating the provisions of CEVNI with due regard of current situation and recent developments (see also Question 6)

By making it more available and developing user-friendly interfaces

There is no need to undertake further actions

Other

Not applicable

You are kindly requested to provide comments, if any

Question 6: *In your opinion, what are future challenges and developments that should be introduced in CEVNI?*

Vessels fuelled by LNG Visualization of signs and marks, virtual AtoNs and other RIS developments IALA provisions applicable to inland waterways and coastal waters Security provisions Vessel's documents Cold ironing Other (please indicate) There is no need to introduce any other amendments Not applicable Question 7: Is this workshop useful for you? Does this practice need to be continued?

Yes, this practice needs to be continued regularly

Yes, but such workshops should be held after the adoption of a new CEVNI version Yes, but one workshop is sufficient

The following organizations could also contribute to the workshop (please indicate) Such workshops should not be held at sessions of SC.3

Other (you are kindly requested to provide comments, if any) Not applicable.

The United Nations Economic Commission for Europe (UNECE) provides a common basis for harmonized traffic regulations on European waterways through the European Code for Inland Waterways (CEVNI). UNECE activities aimed at enhancing navigation safety on inland waterways in the pan-European format and efforts towards harmonizing the navigation rules contribute to the implementation of Sustainable Development Goal 9.

First established in 1962 and adopted by the Working Party on Inland Water Transport (SC.3) on 15 November 1985 as its resolution No. 24, CEVNI contains the core uniform rules applicable to traffic on inland waterways. The fifth revised edition of CEVNI (CEVNI 5) is the most harmonized version of the document which brings together the best practices from the existing traffic regulations of River Commissions and UNECE member States.

Recognizing the importance of the proper implementation process for CEVNI, SC.3 has been collecting and maintaining the information on the implementation of CEVNI by UNECE member States and River Commissions since 2010. This information has provided a basis for the present publication, prepared by a consultant. The publication gives an overview of the history and the application scope of CEVNI by member States and River Commissions, regional and national special requirements and provides recommendations for further increasing the use of CEVNI within the ECE region and beyond.

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