



Roadmap for European manning regulations

1. Main elements of consensus reached after analysis and discussion of the results of the TASCs study

The draft roadmap takes into consideration the following consensus reached in the working group to develop the modernisation of minimum manning requirements:

1. The future manning requirements should reflect the **workload** of personnel and its ever faster changing development.
2. The future manning requirements should reflect the competence of **crew members and safety personnel**.
3. Experts agree that the **high safety level** in inland navigation should be guaranteed at all times; the high and equal safety level in inland navigation is a general principle that must be objectively assessed, also when treating derogations like pilot projects.
4. Experts agree that there is a need for more **flexibility** than the currently applied manning regulations with a view to technical progress, digitalisation, automation and innovative vessel operation, on 3 levels:
 - The inclusion of more determining elements for the definition of manning requirements shall allow for more flexibility;
 - The legal framework should be revised at a regular basis. (CESNI could be tasked to regularly revise the tables or create additional tables for new vessel types or technologies e.g. automation);
 - The possibility that derogations can be granted for innovative pilot projects where the current high safety level can be guaranteed.

5. Experts prefer the use of **modernised manning tables that should be part of a legislative framework**.

Manning tables are easy to read and to use and thus transparent. A manning calculation tool (cfr TASCs study) could serve as a useful device: The tool could apply the new manning tables, which will surely become more detailed and more complicated. So the benefit of the tool could be to make the manning tables (resp. the legal text) easier to handle for the vessel management; Experts agree that the development of a calculation tool for manning that applies in a specific situation and that may facilitate the interpretation of the new regulations is not part of the current work. It is only when the manning requirements are fully developed and approved in regulations (text and tables) that it is desirable that such a tool will be developed to assist the user, only as a helping instrument. At this stage it is not seen as a responsibility of the working group to work on this tool.

The manning tables from Regulations on Rhine Navigation Personnel (RPN) and other relevant regulations can serve as a basis to design for new tables for different types of craft and possibly different types of waterways.

6. **Functions of deck crew members** from Directive (EU) 2017/2397 should be respected although experts may wish to work more on the distinction of functions within the operational level and the entry level.

7. Experts agree that the handling and **steering of the craft from a remote control centre** requires high qualification of the crew to achieve the current high safety level in inland navigation. The experts wish to investigate the possibilities to include the crew in remote control centres in the manning requirements.
8. Technical details of the concerned parameters for the types of craft, the tasks to be carried out by personnel (including personnel employed by the vessel operator and tasks carried out by personnel employed by a third party carrying out these tasks), the number of persons needed with a view to the transport of goods and passengers, and the competences needed to carry out such tasks as well as the available technical support and automation should be further elaborated in **CESNI standards** allowing for appropriate specifications and updates of future manning regulations.
9. The implementation of **the electronic control tools (e-tools)** should go hand in hand with revised minimum manning requirements, because these requirements should be sufficiently enforced. New manning rules and new control instruments allowing real time control of its respect should come into effect at the same time.
10. The minimum manning requirements should be **harmonised at a European level with simultaneous entry into force** of the new rules at CCNR and EU level and at the level of entities with legislative power in Europe (e.g. at river commission level if applicable).
11. **Consultation of experts** from the field from all over Europe is important.
12. Experts agree that **the working time directive 2014/112/EU** and the manning regulations are two different legal instruments and should be kept apart. The working time has an impact on the workload of crew members and the owner/ operator is responsible to comply with the working time directive and mandatory resting time. Experts agree that manning regulations should mention the working time directive and that this instrument applies, as it is done in Art. 3.11(6) RPN. Such wording can ensure that new manning regulations should not contradict the working time directive and that the most favourable regulation for the employee applies.

2. Technical advice for characteristics of possible future regulations

This part of the roadmap contains elements of consensus for every chapter. In the tables there is an overview of legal and technical advice that is needed with the aim to develop the manning requirements.

The second column includes the approach and expertise needed for this advice.

The following approach and expertise will be addressed:

- Desk study on current and legal situation by the Secretariat with the input from member states and experts
- Sector consultation: Social partners (ESO, EBU, ETF)
- Sector consultation: Social partners (ESO, EBU, ETF) especially from the passenger transport sector
- Sector consultation Experts TASCs study
- Sector consultation Edinna, experts on education and training
- Sector consultation Ship developer / classification society
- Sector consultation Remote control centers
- Sector consultation Others (in particular: ...)
- Consultation: waterway managers
- Discussion experts technical requirements vessels
- Discussion experts crew and manning requirements
- Discussion experts information technology
- Discussion experts police navigation rules
- Discussion experts automation in inland navigation
- Discussion experts transport dangerous goods
- Discussion experts infrastructure
- Discussion Others (in particular: ...)

After the second reading by CESNI, the experts mentioned in this list will be invited to make their contribution.

2.1. Scope

The working group may wish to provide further technical advice in the field of the material and geographical scope of a legal instrument on future manning requirements. It is important “to keep a sense of proportion” and to regulate at European level what needs to be regulated at European level to ensure safe navigation but to exclude local use on national waterways even if they are linked to the international network. The future legal instrument on manning requirements and Directive (EU) 2017/2397 should allow for geographical exemptions. There should be as much coherence as possible in legal instruments (future legal instrument for e-tools, legal framework for professional qualifications etc.).

Member States with waterways that are not linked to the navigable network of another Member State (non connected waterways) should have option to apply manning requirements in national legislation. Otherwise the manning requirements would be in contradiction to Directive (EU) 2017/2397 which allows member states to define different levels of qualification in national legislation for those waterways.

Lessons could be learnt from an exchange on the findings of desk research on an inventory of manning regulations such as the RPN and other existing international and national manning regulations, elements analysed in the TASCs study and elements discussed by experts complementing the analysis of the TASCs study, and if needed, further reflection, on the concerned

1. persons,
2. craft/vessels and
3. nautical environments
4. temporal scope

that may require to be covered by rules at European level.

2.1.1. Concerned personnel

Experts agree that **deck crew members** as identified in Annex I of Directive (EU) 2017/2397 (entry level, operational level and management level) as well as **engine room personnel** (crew members) at all levels of qualification shall be covered by manning regulations. Experts agree that the “engineer”, the most frequent representative of the engine room personnel, should be viewed as a crew member on operational level. Shipboard personnel should not be viewed as a crew member.

Experts also agree that **safety qualifications** on board of passenger vessels, vessels carrying dangerous goods and vessels using LNG as a fuel as addressed in Directive (EU) 2017/2397 should be covered by manning regulations.

Definitions discussed in the work of the CESNI/QP/Crew working group:

“crew member”: “person who is either a deck crew member involved in the general operation of a craft operating on inland waterways or engine room personnel involved in the operation of the engines, cranes, or electrical and electronic equipment. The crew member can be on board, on shore or in a remote control centre;”

“safety personnel” means “personnel who fulfils a safety function on vessels for example vessels transporting dangerous goods (ADN), vessels using LNG or passenger vessels”.

Experts agree that for the purposes of new manning regulations, it does not seem necessary to include a definition concerning “shipboard personnel”.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided about the crew members, functions or qualifications that are regulated by the existing international and national manning regulations. What functions/qualifications exist, that are not covered by the Professional Qualifications Directive?</p> <p>It is important to get an overview of all functions/qualifications that are currently common in the different river basins.</p> <p>In this way we can ensure that everything can be taken into account and we have the basis to discuss, what should be covered.</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice should be provided, if and if yes to what extent additional crew members and shipboard personnel as defined e.g. in Art. 1.01(12.1), “shipboard personnel: all employees on board a passenger vessel who are not members of the crew;”, ES-TRIN, whose competence is not addressed in detail in Directive (EU) 2017/2397, should to be covered by manning requirements, especially with a view to their role in the safety rota and if these persons serve on board sea-going ships sailing on inland waterways, or serve on board other specific vessels using engine or machinery that may require specific personnel (e.g. engine room personnel, persons operating the radio such as included in recommendations in the Danube basin etc., holders of a pilot licence ensuring or supporting save vessel operations in areas with mixed traffic of maritime and inland navigation etc.).</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements
<p>Technical advice should be provided, if and if yes to what extent qualification for specific operations and specific authorisations should to be covered by manning requirements. Should a distinction be made between the required members of the minimum crew and the additional qualifications required under Articles 5 and 6 of the Directive Professional qualifications?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements
<p>Technical advice should be provided if additional qualifications of the safety personnel not addressed in Directive (EU) 2017/2397 such as first aid assistants (definition or qualification to be defined in CESNI?) for cargo vessels (as e.g. in Austria¹) and/or passenger vessels (as e.g. in RPN) and breathing apparatus wearers (definition or qualification to be defined in CESNI?) for cabin vessels (as e.g. in RPN) should be added in the manning regulations.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) especially from the passenger transport sector • Sector consultation Edinna, experts on education and training • Discussion experts transport dangerous goods • Discussion experts crew and manning requirements

¹ In Austria, these are not additional crew members on cargo vessels, but according to Austrian law at least two members of the crew need a first aid training.

<p>Technical advice should be provided regarding the <u>possible combinations between the personnel and the safety qualifications</u>. What functions and crew/personnel can, can't or must be combined. The relationships between functions concerning responsibility have to be clarified.</p> <p>Both should be covered by the manning regulations, but in different ways. The additional qualifications of safety personnel do not require an additional crew member, but the function can be performed by a member of the minimum crew and possibly on passenger vessels also by a member of the board personnel.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF), especially from the passenger transport sector • Discussion experts transport dangerous goods • Discussion experts crew and manning requirements
<p>Technical advice should also be provided if <u>less qualifications than currently in place</u> could be sufficient on operational level, even if they figure in the EU-directive 2017/2397 on professional qualification. E.g. is it in modern inland navigation still necessary to have qualifications as diverse as deckhand, boatman, able boatman and helmsman? Entry level, operational level and management level mirror basic safety level, other criteria could be of relevance. Less qualifications might have an influence on the attractiveness of the professions in inland navigation.</p> <p>Legal research on the consequences/ discussion with the EC whether it would be possible to change the Directive and the existing qualifications.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Sector consultation Edinna, experts on education and training • Discussion experts crew and manning requirements
<p>Technical advice is required for defining tasks and competences that are needed in a <u>remote control centre</u> and if and to what extend personnel working in a remote control centre must be covered by European manning regulations. (see consensus annex roadmap 1.8)</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Sector consultation Ship developer / classification society. • In close cooperation with CCNR work and subsequent work in CESNI: • Sector consultation Remote control centers • Discussion experts crew and manning requirements • Discussion experts police navigation rules • Discussion with experts automation in inland navigation

Experts agree that **specific definitions for manning requirements** and for issues related to social security have to be examined.

- Desk study on current and legal situation by the Secretariat with the input from member states and experts
- Sector consultation: Social partners (ESO, EBU, ETF)
- Discussion experts crew and manning requirements
- Discussion experts police navigation rules

2.1.2. Concerned craft/vessels

Experts agree that in general, **commercial craft intended for the transport of goods and passengers** should be covered by manning requirements. In both types of commercial transport the concrete use of the vessel may influence the manning requirements.

Experts agree that craft excluded by the Directive (EU) 2017/2397 should not be covered by European manning regulations.

This Directive (EU) 2017/2397 does not apply to persons:

- (a) navigating for sport or pleasure;
- (b) involved in the operation of ferries not moving independently;
- (c) involved in the operation of craft used by armed forces, forces maintaining public order, civil defence services, waterway administrations, fire services and other emergency services².

Experts agree that European regulations should cover everything that can **best be regulated at European level**.

However, it should be taken into account that there are facts which can be better assessed at national or local level without compromising the safety of European inland navigation.

² see Article 2 of Directive (EU) 2017/2397.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided about the vessels that are <u>regulated by the existing international and national manning regulations</u>.</p> <p>Which crafts are only covered at national level in the current manning regulations, or for which crafts are exceptions possible?</p> <p>Before defining the scope, it must be clear which crafts are covered in the current regulations and how, and why national or local regulations might be more appropriate for specific crafts.</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice should be provided if <u>commercial vessel serving in limited areas</u> e.g. ferries and service vessels either operating in certain areas only (supply vessels, port tugs etc.) should be covered by European manning regulations.</p> <p>Is it appropriate to include in European manning regulations crafts, such as ferries, which only perform a strictly limited task in a strictly limited area?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements
<p>Technical advice should be provided if <u>vessels not contributing directly to the transport of goods and passengers</u> (oil separator vessels, supply vessels, dredgers and other (small) floating equipment etc.) should be covered by European manning regulations, or if the inclusion of such craft should be limited to floating equipment that is permanently manned or equipped to accommodate crew members.</p> <p>It should be reflected (on manning regulations, workload, safety level, qualifications ...) if special craft should be regulated by European or national regulations (e.g. ferries, floating equipment, floating engines, craft used for waterway construction, city tour boats,...).</p>	<ul style="list-style-type: none"> • Sector consultation: Other (engineering agencies) • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts technical requirements vessels • Discussion experts crew and manning requirements
<p>Technical advice could further be required with a view to the inclusion of <u>pleasure craft that are or can be used for commercial reasons</u> (e.g. transport of passengers).</p> <p>A clear definition is needed for sports craft, pleasure craft, passenger vessel and the impact of commercial use. (look on the definitions ES-QIN + ES-TRIN)</p> <p>Experts agree that the inclusion would make the regulations more complicated because it would require additional levels of qualification. We cannot require the same boatmaster certificate for the boatmaster of a passenger vessel with 600 passengers and an open pleasure craft with an outboard engine that is used as a boat taxi with two passengers.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation: Other (EBA European Boating Association)
<p>Technical advice should be provided if <u>small craft</u> shall be excluded compared to Directive 2017/2397 and ES-TRIN (which does not include ferries moving independently).</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements

<p>Technical advice may also be required if and if yes to what extend <u>historic vessels</u> (e.g. steam vessels) or vessel operating according to traditional vessel operation schemes (e.g. replica of historic vessels serving to demonstrate seamanship or technical developments) should be covered by European manning regulations.</p>	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements
<p>What <u>other specific vessels</u> can be identified for which it might be questionable whether European regulations would be appropriate?</p>	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements• Discussion experts technical requirements vessels

2.1.3. Concerned nautical environments

Experts agree that in principle waterways used by personnel disposing of competence according to Directive (EU) 2017/2397 should be covered by future European manning regulations.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided about the nautical environments that are <u>regulated by the existing international and national manning regulations.</u></p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice should be provided if <u>additional areas of navigation</u> like near-coastal waters (e.g. as in Sweden) or waterways where holders of a pilot licence ensuring or supporting safe vessel operations in areas with mixed traffic of maritime and inland navigation should be covered by future European manning regulations. If it turns out that this is not useful, technical advice should be provided if certain sea-going vessels should be addressed specifically in the scope of future European manning regulations.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Consultation: waterway managers
<p>Technical advice should be provided if and if yes to what extend vessels <u>solely operating on isolated waterways</u> (such as lakes or waterways not connected with the waterways of another country) should be covered by manning requirements.</p> <p>Directive 2017/2397 allows member states to define different levels of qualification in national law for those waterways. It is therefore not possible to apply manning requirements that require the qualifications according to 2017/2397 on those waterways.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Consultation: waterway managers
<p>Technical advice is needed if and if yes to what extend national regulations could apply on journeys of local interest, on <u>waterways that are linked to the navigable network</u> of another Member State.</p> <p>For Member States with connected waterways exemptions could be possible under certain conditions.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Consultation: waterway managers

2.1.4 Temporal scope

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided about the nautical environments that are <u>regulated by the existing international and national manning regulations.</u></p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice should be provided if manning regulations should apply only <u>during sailing time or also during not-sailing time.</u> Should loading and unloading be part of the sailing time? It is required to make clear what is meant by “sailing time”, “not-sailing time” “during the voyage”, “operational time of the vessel”, “loading”, “unloading”.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Experts TASCs study
<p>Technical advice should be provided if manning regulations should apply on <u>supervision requirements during the not-sailing time.</u></p> <p>Legal research: The applicable regulation concerning supervision should be investigated.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Discussion experts police navigation rules • Sector consultation Experts TASCs study

2.2 Main vessel types and their categories

The working group may wish to provide further technical advice in the field of the identification and definition of the main vessel types referred to in manning tables in a legal instrument on future manning requirements. Consultation of expert from the field should also associate experts from ES-TRIN as vessel types in manning requirements and technical requirement should be identical.

Lessons could be learnt from an exchange on the findings of desk research on existing manning requirements, elements analysed in the TASCs study and elements discussed by experts complementing the analysis of the TASCs study, and if needed, further reflection, on the

1. general distinction of vessel types according to specific cargo and passenger transport activities
2. specific characteristics of the identified main vessel types
3. elements that could justify an exemption to the rule that may require to be covered by rules at European level.

2.2.1. Distinction between various vessels used for freight transport and passenger vessels

Experts agree that in manning tables, a general distinction between vessels used for freight transport and passenger vessels should apply.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided about the <u>types of vessels that are differentiated in the international and national regulations in force?</u></p> <p>What types of vessels are found in the existing regulations that are not assigned to a category (such as § 3.19 RPN)?</p> <p>It seems reasonable not to create a separate category for all existing vessels and to regulate them all at European level, because for ships such as those mentioned in § 3.19 RPN, local authorities could regulate better and more adapted than European regulations. European regulations should not become too complicated.</p>	<ul style="list-style-type: none">• Desk study on current and legal situation by the Secretariat with the input from member states and experts• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements• Discussion experts technical requirements vessels

a) Vessels used for freight transport: Distinction between self-propelled vessels and convoys

Experts also agree that dry and liquid cargo vessels could be further addressed in specific tables for self-propelled vessels and vessels used in an assembly of vessels (pushed or towed convoy, rigid assembly etc.).

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Technical advice could be provided on <u>how these vessels should be grouped</u> taking into account that both, workload and safety, are viewed as a decisive factor.</p> <p>Should a future manning system for cargo vessels <u>differ between</u>:</p> <ol style="list-style-type: none">1. Self-propelled vessels and assemblies of vessels?2. Within the assemblies of vessels: pushed convoys, towed convoys, rigid assemblies, not motorized vessels with steering equipment in towed convoys, others?3. Liquid and dry cargo vessels?4. Other criteria?	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements• Discussion experts technical requirements vessels• Sector consultation Experts TASCs study

b) Passenger vessels: Distinction between day-trip and cabin vessels

Experts agree that in manning tables, a general **distinction between vessels offering private cabins for passengers and vessels not offering private cabins for passengers** should be made with a view to surveillance, evacuation and rescue operations that may differ between these categories of passenger vessels.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Technical advice could be provided on <u>how these vessels should be grouped</u> taking into account that both, workload and safety, are viewed as a decisive factor</p> <p>Should a future manning system for passenger vessels <u>differ between</u>:</p> <ol style="list-style-type: none"> 1. Vessels with private cabins ("Fahrgastkabinenschiff") and vessels not offering that ("Tagesausflugsschiff")? 2. How many passengers are on board and whether their number is known before the beginning of the journey? 3. Other criteria? <p>Has the question concerning the number of "safety personal" on board to depend on the same criteria than the number of the nautical minimum crew?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) especially from the passenger transport sector • Discussion experts crew and manning requirements • Discussion experts technical requirements vessels • Sector consultation Experts TASCs study

2.2.2. Specific characteristics of main vessel types

Experts agree that **defining categories of vessels may make it easier** for the vessel operator to identify what crew and safety personnel is needed to safely operate the vessel. Experts also agree that such categories may facilitate control operations.

a) Vessels in general

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Experts expressed doubts that currently applied criteria such vessels are (still) reflective of workload and safety with a view to the main vessel categories.</p> <p>With a view to all vessels, experts could provide technical advice what elements are suitable factors for defining vessel categories. Technical advice is needed to define categories and list other determining elements.</p> <p>At least the following elements should be taken into consideration for manning tables for crew members and safety personnel on board passenger vessels (taking into account that workload and safety have to be the decisive factor):</p> <ol style="list-style-type: none"> 1. Vessel length (size) 2. Vessel power 3. Automation level 4. Technical standards 5. Workload on board 6. Duration or sailing area of the journey 7. Operation of the vessel (sailing, not sailing, loading...) 8. Emergency situations 9. Sailing area of the journey 10. Others? <p>Take into account that too many factors could make the table too complex to handle?</p> <p>How can an exact determination of the criterion "workload" be done? Precise: When is the workload so high that we can say, the vessel needs an additional deckhand/boatman/helmsman? There is a need to develop a definition of workload and how it can be measured.</p> <p>Workload has to be assessed at all times in combination to the total working time already performed and the fatigue that occurs – an all-inclusive approach.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Discussion experts technical requirements vessels • Sector consultation Experts TASCs study • Sector consultation Edinna, experts on education and training • Sector consultation Ship developer / classification society • Discussion experts information technology • Discussion experts police navigation rules • Discussion experts automation in inland navigation • Discussion experts transport dangerous goods

b) Vessels used for freight transport

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>With a view to cargo vessels, experts could provide technical advice what elements are suitable factors for defining vessel categories. Technical advice is needed to define categories and list other determining elements.</p> <p>At least the following elements should be taken into consideration for manning tables for crew members on board vessels used for freight transport:</p> <ol style="list-style-type: none">1. Carrying capacity2. Vessels in assembly: Number of vessels in that assembly?3. Cargo4. Others?	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements• Discussion experts technical requirements vessels• Sector consultation Experts TASCs study

c) passenger vessels

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>With a view to passenger vessels, experts could provide technical advice what elements are suitable factors for defining vessel categories. Technical advice is needed to define categories and list other determining elements.</p> <p>At least the following elements should be taken into consideration for manning tables for crew members and safety personnel on board passenger vessels</p> <ol style="list-style-type: none"> 1. allowed number of passengers on board (as in RPN as a general rule), 2. actual number of passengers on board (as in RPN for specific chartered transport operations), 3. the reference to the fact that passengers are on board or 4. specific exemptions for small passenger vessels operating in certain local areas (such as in Dutch, Belgian or German national manning requirements) 5. Can a passenger vessel without passengers be viewed as a cargo vessel? 6. Others? <p>For cabin vessels, technical advice should be provided, if and if yes to what extend the number of persons, beds or cabins on board should be taken into consideration.</p> <p>Did the flexibility clause for chartered passenger vessels (where the crew is dependent on the previously notified number of passengers, cf. article 3.17 no. 9 RPN) prove to be appropriate and could its scope possibly be extended? This rule was introduced in 2017 to provide more flexibility. If it has proved its worth, consideration could be given to extending its scope somewhat.</p> <p>Should there be specific exemptions for small passenger vessels and/or vessels operating in certain areas? What could be the criteria for classification a vessel as “small” passenger vessel or the determination as a “certain area”?</p> <p>Which precise criteria should be taken into account to determine the minimum number of passenger navigation experts on board or available for the types of passenger vessels?</p> <p>Which “safety personal” should be on board furthermore or available (e.g. First-aid-personal or breathing apparatus wearer)?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) especially from the passenger transport sector • Discussion experts crew and manning requirements • Discussion experts technical requirements vessels • Sector consultation Experts TASCs study

2.3. Main technical features of the craft

Experts agree that the TASCs study showed that **significant developments in the vessel propulsion, technical equipment on deck** (e.g. winches, coupling devices, anchors etc.), in the wheelhouse (communication and IT tools, cameras etc.) and in the engine room (e.g. with a view to service needed for main and auxiliary engines etc.) whereas the standards S1 and S2 as defined by ES-TRIN (ESI-III-10) and RPN mainly reflect technical standards and technology used in the late 1980s for propulsion technologies of the time and technology used by personnel engaged in steering from the wheelhouse environment and by personnel engaged in manoeuvring activities (using winches, anchors etc).

Experts agree that the existing definitions of **standards S1 and S2** are no longer reflective of the workload and safety and are not suited to take developments such as digitalisation and automation into account.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided about the current minimum standards that are defined as a precondition for sailing with a minimum crew?</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice should be provided if there is a need to work with minimum standards (cfr. S1 and S2 in RPN). What elements of equipment should be defined to determine the technical standard of a vessel. How many standards are needed? Which technical equipment reduces the time and physical workload of a crew?</p> <p>The roadmap rightly points out that the standards S1 and S2 as defined by ES-TRIN (ESI-III-10) and RPN mainly reflect technical standards and technology used in the late 1980s.</p> <p>It would be useful to examine the various technical equipments in terms of their function and their impact on the workload of the crew members.</p> <p>Technical advice should be provided if, how and to what extend levels of automation, currently under revision taking into account the tasks that need to be carried out as defined by the ES-QIN standards for competence for OL and ML can be linked to the technical standards used in manning tables.</p> <p>Based on findings of pilot projects technical advice may also be provided for the definition of technical standards that would eventually open the option to have a minimum (on board) crew of zero, once police regulations and technical requirements allow for such operation. Technical advice might be more fruitful based on evaluation of pilots and after discussions in other more advanced fora.</p> <p>Seafar is already sailing with less crew on board than minimum requirements but if you add up the crew in the RCC they have more than the minimum requirement</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) especially from the passenger transport sector • Discussion experts crew and manning requirements • Discussion experts technical requirements vessels • Sector consultation Experts TASCs study • Sector consultation Edinna, experts on education and training • Sector consultation Ship developer / classification society • Sector consultation Remote control centers • Discussion experts automation in inland navigation

<p>Technical advice should be provided on what impact manning requirements can have on the handling of <u>man overboard situations</u> and what technical requirement can provide solutions in the case of a smaller crew.</p> <p>A context specific discussion is needed. The biggest problem is steerless ship. Link with levels of automation and what should be in place on the ship in order to be safe Difference between ship with RCC and sailing without RCC Safety jacket with AIS transponder exists in maritime sector but is not obliged on IWW and also very expensive. Ship could go to non-active when MOB. Safety jacket could be connected to steering technology on the ship through a signal. In maritime navigation there is a new technology whereas a chip is inserted in the life jacket that triggers a GPS signal in case of MOB.</p>	
<p>What technical equipment could be taken into consideration to identify the required number of crew in <u>emergency situations</u>?</p>	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Sector consultation Experts TASCs study• Discussion experts police navigation rules

2.4. Flexibility

In terms of flexibility, experts refer to the example of Directive (EU) 2017/2397 where CESNI provided details for essential requirements set in international legal instrument(s). Legislative framework provides for flexibility. As tables could be included in legal instrument, CESNI could be consulted when **drafting tables (1st level)** and **keep tables up to date in appropriate intervals (2nd level)** and work on **derogations in individual cases (3rd level)**.

Experts agree that there is a need for more flexibility than the currently applied manning regulations on 3 levels:

1. The inclusion of more determining elements
2. The legal framework should be revised at a regular basis
3. The possibility that derogations can be granted for innovative pilot projects

2.4.1. The inclusion of more determining elements

Experts agree that the inclusion of more determining elements is essential to develop flexible regulation that reflects the workload and guarantees a high safety standard in inland navigation.

Apart from manning tables with more decisive factors that add to flexibility, more flexibility may also be envisaged for situations when in a specific journey, an agreed set of standards with **alleviating or aggravating factors can** be applied to replace the more general manning tables.

These determining elements depend on the characteristics of vessels (2.2.2.), the technical features of the craft (2.3) and other factors.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice could be provided on the elements, beside the characteristics of vessels and the technical features of the craft, that <u>effect the crew needed on board.</u></p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice could be provided on, the elements, beside the characteristics of vessels and the technical features of the craft, that <u>could effect the crew needed on board.</u></p> <p>At least the following elements should be taken into consideration:</p> <ol style="list-style-type: none"> a. Tasks to do during the journey? <ol style="list-style-type: none"> i. Work during the passage of a lock ii. Repair, maintenance and inspection iii. Others? b. Characteristics of the waterway, e.g. canal, bending waterway, stream pattern and stream speed? Or is this factor reflected in letter c (“Tasks”)? c. In what way could vessel specific, taylor-made fatigue management have an impact? Less crew possible if there is a fatigue management system in place? d. Others? 	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Experts TASCs study • Consultation: waterway managers • Discussion experts information technology
<p>How can specific <u>waterway stretches be assessed</u> according to their characteristics in order to define the minimum crew for a specific voyage?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Experts TASCs study • Consultation: waterway managers • Discussion experts infrastructure

<p>Technical advice should be provided if manning regulations should apply based on <u>operation modes</u> or based on the voyage.</p> <p>If it should be possible to determine the minimum crew for both a type of operation and a specific voyage, it must be able to select the criteria for the voyage in detail. The TASCs study can provide guidance, but it is necessary to define the criteria that decide on the crew in order to have a legal basis for the calculation of a specific voyage.</p> <p>The calculation of a minimum crew for a specific voyage depends on the characteristics of the individual waterways or waterway stretches, for example how many locks they have. It would therefore be necessary to consider the influence of the waterways or waterway stretches or the number of locks and possible other characteristics that could have an impact on the number of crew members and how to calculate it.</p> <p>The inclusion and possibly the diversification of operating modes can be viewed as an element to <u>lessen the administrative burden</u> of operators who do not wish to calculate the required manning according to the characteristics of a specific voyage or a specific vessel.</p>	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements• Sector consultation Experts TASCs study
<p>In what way could <u>operating time</u> be extended if the crew surpasses in number or qualification the minimum crew? Extending the reference period for the operating time of some days instead of 24 hours?</p>	<ul style="list-style-type: none">• Sector consultation: Social partners (ESO, EBU, ETF)• Discussion experts crew and manning requirements• Sector consultation Experts TASCs study

2.4.2. The legal framework should be revised at a regular basis

CESNI can react in a more flexible way, to react on technical progress and work on updates of tables. Specific procedures that fit the future legal situation have to be discussed in the competent fora.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Which rules are mandatory in the framework of manning regulations and <u>which details can be regulated in CESNI standards?</u></p> <p>Technical equipment is changing rapidly and automation is advancing, digitisation and greening will be further developed. It would therefore be necessary that those factors which are subject to change are regulated in CESNI standards, so that new situations can be responded to with more flexibility and adapted more quickly.</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Should there be <u>fixed periods for revising</u> the manning tables to keep them up to date? e.g. every two year</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements

2.4.3. The possibility that derogations can be granted for innovative pilot projects

Derogations may concern craft providing for equal level of safety, e.g. pilot projects. Individual derogations for craft are also possible as in the technical requirements directive³ and RVIR (The Rhine vessel inspection Regulations), complemented by implementing act/appropriate procedure. Appropriate legal procedure should be efficient and based on objective criteria. Concrete role of actors in the process of derogations have to be described at a later stage.

Experts have not yet discussed exemptions that currently exist in national regulations. Experts could take note of such exemptions on the basis of an inventory of existing manning requirements.

³ Directive (EU) 2016/1629 of the European Parliament and of the Council of 14 September 2016 laying down technical requirements for inland waterway vessels, amending Directive 2009/100/EC and repealing Directive 2006/87/EC (OJ L 252, 16.9.2016, p. 118).

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice could be provided on the current legal possibilities in national requirements to provide exemptions and derogations on manning requirements.</p> <p>How do we assure room in the regulations for safe experiments/pilots on a national level? It is important for Member States to have the possibility to make an exemption for example for pilots on a national level.</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Technical advice could be provided about which manning regulations should derogations be allowed? Which problems could occur if these derogations are allowed?</p> <p>How can we best ensure coordination between manning regulations, technical regulations and police regulations?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements
<p>Legal and technical advice could be provided on how derogations should be allowed? In general or in individual cases?</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>Advice could be provided on the authorities that are responsible for granting derogations:</p> <ul style="list-style-type: none"> • national authorities, perhaps with support from the river commission or the EU commission? • Combine a decision from: <ul style="list-style-type: none"> ○ The waterway authority ○ A team of technical experts related to the ship (<i>commission de visite</i>) <p>What is the role of CESNI in the procedure to decide upon derogations?</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements
<p>Experts could also provide technical advice on reflections that may lead to the assumption that such exemptions are (still) reflective of the workload and safety of the transport of cargo and persons, as reflected in the TASCs study, e.g.</p> <ol style="list-style-type: none"> 1. level of automation in navigation, operation of the craft, cargo handling, communication, 2. organisation of maintenance and repair as well as inspection 3. new determining factors for the definition of manning requirements 4. regulation on technical equipment and personnel in CESNI standards 5. reduction of the workload by technical equipment and automation 6. circumstances that may influence the workload during a journey, e.g. the number of locks to be passed, weather conditions etc 7. a higher qualification of crew members than required might allow a surcharge on operating time 	

Technical advice could be provided on how **changes in the workload** can objectively measured and taken into account while dealing with adjustments in the needed manning requirements. Fatigue management and the equal safety level in navigation should be important parameters to implement in this discussion.

How can we guarantee an equal safety level when approve derogations and how can we measure this?

- Sector consultation: Social partners (ESO, EBU, ETF)
- Discussion experts crew and manning requirements
- Discussion experts technical requirements vessels
- Sector consultation Experts TASCs study
- Sector consultation Edinna, experts on education and training
- Sector consultation Ship developer / classification society
- Discussion experts information technology
- Discussion experts police navigation rules
- Discussion experts automation in inland navigation
- Discussion experts transport dangerous goods

2.5. Framework for the protection of personnel on entry level

Experts agree that the apprentice and the deckhand (entry level) should remain part of the minimum crew, in order to promote the placement of apprentices and in order to attract new entrants to the sector.

Experts agree that unemployed people who are doing a “snuffelstage” should have followed a basic safety training. They need to be distinguished from people who are having insights on the profession and no particular tasks on board (their presence is limited to a visit of several hours).

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Legal advice should be provided on the <u>current practice of deckhands and apprentices</u> on national level.</p>	<ul style="list-style-type: none"> • Desk study on current and legal situation by the Secretariat with the input from member states and experts
<p>What <u>qualifications must an instructor</u> on board a vessel have in each Member State in order to train apprentices?</p> <p>Is there any evidence that trainees on small ships with only one boatmaster as crew are less well trained than others?</p> <p>It is currently possible to train an apprentice on vessels up to 55m with only one boatmaster. This has not just been the case since yesterday, so at the moment there is nothing to indicate that good training cannot be provided there.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training
<p>Should manning regulations require <u>additional qualifications</u> if the deckhand is the only crew member besides the boatmaster?</p> <p>Manning regulations should in principle cover the assignment of the different crew members on a ship and not the requirements for their qualifications. This is the scope of Directive 2017/2397. It is important to look carefully where you can use a deckhand. This will depend on the various factors that are examined in the other chapters. The statement that could be made now is that a deckhand can be the only crew member besides the boatmaster if this is acceptable from the point of view of safety of navigation and safety of the deckhand.</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training • Discussion experts technical requirements vessels

a) Apprentices

Experts agree that apprentices can be part of the minimum deck crew, they have a specific role to play for the influx of new crew members to the sector.

Technical advice should be provided ...	Expertise needed/research to be carried out
<p>Technical advice should be provided on the question <u>if any apprentice can be the only crewmember besides the boatmaster</u> (what experience at entry level is needed?) and if so on the qualification needed to accompany an apprentice in an appropriate way. Also vessel type characteristics should be taken into account (small vessels with a length of up to 55m sailing with one boatmaster only would else be excluded from taking apprentices on board whereas these vessels are said to be needed to offer sufficient practical training in several countries).</p> <p>Legal research on definition</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training • Discussion experts technical requirements vessels
<p>Technical advice could be provided if there can be <u>a distinction between a less and more experienced apprentice</u>. Are there tasks that can only be carried out by apprentices who have already passed some service time/navigation time or have already passed certain assignments during their training. Effects of new exemptions should be considered carefully.</p> <p>Legal research on definition</p>	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training • Discussion experts technical requirements vessels

b) Deckhands

Experts agree that deckhands with basic safety training can be part of the minimum deck crew.

Technical advice should be provided ...	Expertise needed/research to be carried out
Technical advice could be provided if <u>additional qualifications should be required</u> to accompany a deckhand.	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training
Technical advice should be provided if, just like the apprentice, the deckhand <u>can be the only crew member apart from the boatmaster</u> , if the deckhand is properly accompanied.	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training • Discussion experts technical requirements vessels
Technical advice could be provided if, just like the apprentice, there can be <u>a distinction between a less and more experienced deckhand</u> .	<ul style="list-style-type: none"> • Sector consultation: Social partners (ESO, EBU, ETF) • Discussion experts crew and manning requirements • Sector consultation Edinna, experts on education and training

Scope and derogations of legal instruments in IWT

I. Directive (EU) 2017/2397 on professional qualifications

The scope of the Directive is defined in Art. 2. Definitions of terms i.a.in Art. 2 can be found in Art. 3. Exemptions related to national waterways that are not linked to the navigable network of another Member State can be found in Art. 7 in terms of the obligation to carry a certificate of qualification, as a deck crew member, as a holder of a specific certificate of qualification for specific operations and as a boatmaster who is to hold specific authorisations (see Art. 4 to 6). Relevant definitions for these articles can be found in Art. 3(1), (2), (3), (4), (5), (6), (9), (11), (12), (13), (23), (24), (25), (26).

Art. 2 reads as follows:

„Article 2

Scope

1. This Directive applies to deck crew members, liquefied natural gas experts and passenger navigation experts on the following types of craft on any Union inland waterway:

- (a) vessels having a length of 20 metres or more;
- (b) vessels for which the product of length, breadth and draught is a volume of 100 cubic metres or more;
- (c) tugs and pushers intended for:
 - (i) towing or pushing vessels referred to in points (a) and (b);
 - (ii) towing or pushing floating equipment;
 - (iii) moving vessels referred to in points (a) and (b) or floating equipment alongside;
- (d) passenger vessels;
- (e) vessels required to have a certificate of approval pursuant to Directive 2008/68/EC of the European Parliament and of the Council;
- (f) floating equipment.

2. This Directive does not apply to persons:

- (a) navigating for sport or pleasure;
- (b) involved in the operation of ferries not moving independently;
- (c) involved in the operation of craft used by armed forces, forces maintaining public order, civil defence services, waterway administrations, fire services and other emergency services.

3. Without prejudice to Article 39(3), this Directive also does not apply to persons navigating in Member States with no inland waterways linked to the navigable network of another Member State and who are exclusively:

- (a) navigating limited journeys of local interest, where the distance from the departure point is at no time more than ten kilometres; or
- (b) navigating seasonally.“

Art. 39(4) states that Member States shall not be obliged to transpose this Directive as long as inland waterway navigation is not technically possible on its territory (CY, MT).

II. Directive (EU) 2016/1629 on technical requirements

Apart from implementing acts allowing for derogations for the use of new technologies according to Article 25, the most relevant article reads:

„Article 24

Derogations for certain categories of craft

1. While maintaining an adequate level of safety, Member States may authorise derogations from all or part of this Directive for:

- (a) craft operating on non-linked inland waterways;
- (b) craft having a dead weight not exceeding 350 tonnes or craft not intended for the carriage of goods and having a water displacement of less than 100 cubic metres, which were laid down before 1 January 1950 and which operate exclusively within their territory.

2. Without prejudice to the Revised Convention for Rhine Navigation, Member States may authorise, in respect of navigation within their territory, derogations from this Directive for craft operating limited journeys of local interest or in harbour areas. The derogations and the journeys or areas for which they are valid shall be specified in the craft's certificate.

3. The Member States shall notify the Commission of the derogations authorised in accordance with paragraphs 1 and 2. The Commission shall inform the other Member States accordingly.“

According to Art. 2 of the Directive, the scope is defined as follows:

Article 2

Scope of application

1. This Directive applies to the following craft:

- (a) vessels having a length (L) of 20 metres or more;
- (b) vessels for which the product of length (L), breadth (B) and draught (T) is a volume of 100 cubic metres or more;
- (c) tugs and pushers intended for towing or pushing either craft referred to in points (a) and (b) or floating equipment, or intended for moving such craft or floating equipment alongside;
- (d) passenger vessels;
- (e) floating equipment.

2. This Directive does not apply to:

- (a) ferries;
- (b) naval vessels;
- (c) seagoing ships, including seagoing tugs and pushers, which:
 - (i) operate or are based on tidal waters; or
 - (ii) operate temporarily on inland waterways;

provided that they carry at least:

- a certificate proving conformity with the 1974 International Convention for the Safety of Life at Sea (SOLAS), or equivalent certificate; a certificate proving conformity with the 1966 International Convention on Load Lines, or equivalent, and an international oil pollution prevention (IOPP) certificate proving conformity with the 1973/78 International Convention for the Prevention of Pollution from Ships (Marpol),
- in case of seagoing ships not covered by SOLAS the 1966 International Convention on Load Lines or Marpol, the relevant certificates and the freeboard marks required by the laws of their flag states,
- in the case of passenger vessels not covered by any of the Conventions referred to in the first indent, a certificate on safety rules and standards for passenger ships issued in conformity with Directive 2009/45/EC of the European Parliament and of the Council or
- in the case of recreational craft not covered by any of the Conventions referred to in the first indent, a certificate of the country of which it carries the flag, demonstrating an adequate level of safety.“

According to Art. 3 lit p, „linked inland waterways“ are defined as follows:

‘linked inland waterways’ means waterways of a Member State connected, by inland waterways which can be navigated under national or international law by craft falling within the scope of this Directive, to inland waterways of another Member State.

Some Member States are not addressed by the Directive according to its Art. 40 that reads:

„Article 40

Addressees

This Directive is addressed to the Member States except Denmark, Estonia, Ireland, Greece, Spain, Cyprus, Latvia, Malta, Portugal, Slovenia and Finland.“
