

# Impact assessment of ratification of the STCW-F 1995 Convention

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# EXAMENSARBETE

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Titel: Konsekvensbedömning av ratificering av STCW-F 1995 konventionen

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## Abstrakt

Examensarbetet behandlar den internationella STCW-F konventionen om fiskefartygspersonals behörigheter. Revisionen av konventionen är på gång som bäst i den internationella sjöfartsorganisationen IMO. Arbetet jämför våra nationella krav med de reviderade kraven och bedömer konsekvenser om konventionen implementerades i Finland.

Arbetet baserar sig på genomgång av internationella konventioner och lagstiftning och jämför de med Finska lagstiftning. Arbetet utnyttjar registrerad information bl.a. om mängden av fiskefartyg, fiskefartygsbehörigheter, studerar olyckor som har hänt till Finska fiskefartyg och utnyttjar forskningsrapporter publicerade inom EU om fiskefartygspersonalens utbildning och kompetens.

Studien identifierade inte direkta säkerhetsrelaterade behov som skulle motivera ratificeringen av konventionen. Utbildnings- och behörighetskrav kan ändras även nationellt vid behov. Det rekommenderas att nationella krav hålls så nära som möjligt på de i konventionen för att göra det eventuella framtida implementeringen enklare. Trots att Finland skulle bestämma sig stanna utanför konventionen, finns det en möjlighet att i framtiden konventionen blir bindande i alla EU medlemsstater genom EU lagstiftningen.

Skälen att ratificera konventionen skulle vara närmast att befrämja den internationella regleringen om fiskefartyg och för att lätta arbetskraftens rörlighet. I alla fall arbetskraftens rörlighet från stater som inte är medlem i konventionen skulle bli svårare och det är viktigt att beslut i ärenden görs enhetlig med de stater som producerar arbetskraft till finska fiskefartyg.

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Språk: Engelska

Nyckelord: utbildning, behörighet, fiske, STCW-F

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Suuntautumisvaihtoehto/Syventävät opinnot: Maritime Management

Ohjaaja(t): Thomas Finne

Nimike: STCW-F 1995 yleissopimuksen ratifioinnin vaikutustenarvionti

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## Tiivistelmä

Opinnäytetyö käsittelee kalastusalusten henkilökunnan pätevyksiä sääntelevää kansainvälistä STCW-F -yleissopimusta. Yleissopimuksen kokonaisuudistus on parhaillaan käynnissä kansainvälisessä merenkulkujärjestössä IMOssa. Työ vertailee kansallisia vaatimuksiamme uudistuvan yleissopimuksen vaatimuksiin ja arvioi vaikutukset, jos yleissopimus voimaansaatettaisiin Suomessa.

Työ perustuu kansainvälisten sopimusten ja lainsäädännön läpikäyntiin ja niiden vertailuun Suomen kansalliseen lainsäädäntöön. Työssä käytetään rekistereissä olevaa tietoa mm. kalastusalusten ja kalastusaluspätevyksien määrästä, perehdytään suomalaisille kalastusaluksille sattuneisiin onnettomuuksiin ja hyödynnetään EU:ssa julkaistuja tutkimusraportteja kalastusalusten henkilökunnan koulutuksesta ja pätevyyksistä.

Tutkimus ei tunnistanut suoria turvallisuuteen liittyviä tarpeita, joiden takia yleissopimukseen liittyminen olisi aiheellista. Koulutus- ja pätevyysvaatimuksia voi tarvittaessa muokata kansallisestikin. On suositeltavaa, että kansalliset vaatimukset pidettäisiin mahdollisimman lähellä yleissopimuksen vaatimuksia, jotta mahdollinen yleissopimuksen voimaansaattaminen olisi tulevaisuudessa helpompaa. Vaikka Suomi päättäisikin olla liittymättä yleissopimukseen, on olemassa mahdollisuus, että yleissopimus tulevaisuudessa tulee EU-lainsäädännön kautta pakottavaksi kaikissa EU:n jäsenmaissa.

Perusteet yleissopimukseen liittymiselle olisivat lähinnä yhteisen kansainvälisten kalastusalussäätelyn edistämisessä ja työvoiman liikkuvuuden helpottamisessa. Kuitenkin työvoiman liikkuvuus sopimuksen ulkopuolisista maista hankaloituisi ja ratkaisut asiassa onkin tärkeää tehdä yhdenmukaisesti tärkeimpien suomalaisille kalastusaluksille työvoimaa tuottavien valtioiden kanssa.

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Kieli: Englanti

Avainsanat: koulutus, pätevyys, kalastus, STCW-F

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# BACHELOR'S THESIS

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## Abstract

The thesis studies the international STCW-F Convention regulating qualifications of fishing vessel personnel. The comprehensive review of the Convention is currently ongoing at the International Maritime Organization. The thesis compares Finnish national requirements with the reviewed Convention and assesses the impacts if the Convention was implemented in Finland.

The study scrutinizes international conventions and legislation comparing them with Finnish national legislation. The work utilizes registers e.g. on numbers of fishing vessels or fishing vessel personnel qualifications, studies accidents with Finnish fishing vessels involved and uses research papers published in the EU regarding the training and competencies of fishing vessel personnel.

The research did not recognize direct safety related needs justifying the ratification of the Convention. Requirements for training and competency can be amended also nationally if needed. It is advisable that national requirements would be kept as close as possible to the Convention requirements in order to make potential future implementation easier. Although Finland decided to stay out of the Convention, it is possible that the Convention could come binding in all EU member states through EU legislation.

The possible reasons for ratification would mainly be promoting international regulation on fishing vessel personnel and advancing the free movement of workforce. However, the movement of workforce from states outside the Convention would become more difficult and decisions on the matter are important to be made uniformly with the states supplying workforce to Finnish fishing vessels.

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Language: English      Key words: training, competency, fishing, STCW-F

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## Abbreviations

CEDTE	Southwest Finland's Centre for Economic Development, Transport and the Environment
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
FMA	Finnish Maritime Administration
GT	Gross ton
HTW	Sub-Committee on Human Element, Training and Watchkeeping
ILO	International Labour Organization
IMO	International Maritime Organization
KUP	Knowledge, Understanding and Proficiency
MSC	Maritime Safety Committee
SSDC-F	EU Sectoral Social Dialogue Committee in Sea-Fishing
STCW	International Convention on Standards of Training, Certification and Watchkeeping for seafarers, 1978
STCW-F	International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995
STW	Sub-Committee on Standards of Training and Watchkeeping (currently HTW)
UNCLOS	United Nations Convention on the Law of the Sea

# 1 Introduction

The fishing industry is one of the most dangerous occupations in the world. The number of annual casualties varies between the sources and there might not be any fresh research on the topic but numbers as high to 24000-32000 lost lives per year are used e.g. by The International Maritime Organization and the Food and Agriculture Organization of the United Nations. (IMO MSC 95/19/3, 1 and FAO) Within the European Union statistics for agriculture, fishing and forestry are combined but together those three formed 13 % of the fatal accidents at work in 2018 being one of the most dangerous sectors of industry. It can also be seen from the statistics that on this sector accidents, when they happen, often have fatal consequences. (Eurostat)

The IMO, has adopted the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995. (hereafter STCW-F or the Convention) The Convention promotes the safety of life and property at sea and the protection of the marine environment and sets common international standards for training, certification and watchkeeping for fishing vessel personnel. The Convention applies mainly to the deck officers of fishing vessels of 24 meters of length and over, and engineer officers of fishing vessels of 750 kW propulsion power or more. However, the requirement for basic safety training applies to all fishing vessel personnel. (STCW-F Chapters II and III)

The Convention was adopted on 7 July 1995 in London and it entered into force 12 months after the date it gained 15 ratified states, meaning 29 September 2012. There are currently 33 contracting states, Finland is not among those. (IMO Status of Conventions) Certification of personnel of fishing vessels in Finland is currently based on our national requirements.

The Council of the European Union has given a decision on May 2015 authorizing EU member states to become a party to the Convention. (European Council, 2015) This authorization is in practice of nature of recommendation where the Council invites the rest of the member states to ratify the Convention. Thereafter, the European Commission inquired the member states about the intentions of ratification and on the resulting report to the Council on March 2019, the Commission strongly invites member states to ratify the Convention. According to the report, Finland has not started the ratification of the Convention because there are only a few vessels that could be under the application of the Convention. (European Commission, 2019, 3)



The Convention has not been amended since the publication, nor are there any added resolutions since then. (IMO Status of Conventions) There is an ongoing comprehensive review of the Convention at the IMO. Target date of the review is set to the year 2022 when the revised Convention and new Code should be finalized at the 8th session of IMO Sub-Committee on Human Element, Training and Watchkeeping (HTW) in February 2022. Then the adoption of the Convention and Code would be spring 2024 at the 108th session of the IMO Maritime Safety Committee. (HTW 7/WP.7)

Finland has been following the review but not actively participated in the discussions at the IMO as the current position is that Finland would stay out of the Convention even after the completion of the review.

The goal of this study is to assess what would be the impacts if Finland ratified the Convention. It will give grounds for decision makers to make a justified decision of ratifying or staying out of the Convention. After describing both national legislation and STCW-F, the structure of the work will follow the common headlines of regulatory assessments used in Finland, taking into account impacts on businesses, fishing vessel personnel, safety, environment, training institutions and government activities. Additionally, related information will be gathered around the subject. Naturally, when comprehensive review is still ongoing, the final content and standards of the Convention can vary from the current version. However, as the work is already well underway at the IMO, this study is possible and reasonable to do by now.

## **1.1 Purpose, definition and research questions**

The scope of this study is to research the content of the currently reviewed Convention and compare its predicted outcome to our national certification requirements identifying the possible differences in training and competencies. The study will then discuss the importance of those differences in light of safety of life and property at sea and protection of the marine environment especially taking into account the nature of catch areas where Finnish fishing vessels usually operate. In addition, matters like the freedom of movement for workers, possible restrictions for fishing vessels of non-ratified states laid by the coastal states which have ratified the Convention will be studied. The writer is a senior inspector at the Transport and Communications Agency Traficom and the study gives the agency an opportunity to focus on the matter much deeper than otherwise it could be possible as part of regular official work.

**The research questions for the study are:**

- 1) What are the differences in current national training requirements and those laid out in the Convention?
- 2) Would it be reasonable to implement the Convention in light of safety of life and property at sea, protection of the marine environment or freedom of movement for workers?
- 3) What would be the impacts if the Convention was implemented or if it becomes binding through EU legislation?

The study may also provide suggestions for alterations to our current legislation even if Finland would choose not to ratify the Convention.

It is also possible that the STCW-F will someday become binding EU legislation through an EU directive despite if the EU member state has ratified the Convention or not. This has happened already for the merchant mariners where the STCW-F's older sibling, namely the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, (STCW), has been brought to binding EU legislation through the directive 2008/106/EC of the European Parliament and of the Council of 19 November 2008 on the minimum level of training of seafarers.

## **1.2 Theoretical background**

The theoretical background and sources consists of international conventions, EU regulations, national legislation and its preparatory work, the national syllabuses for training of fishing vessel personnel and Traficom's and Southwest Finland's Centre for Economic Development, Transport and the Environment (CEDTE) statistics and registers. In addition, different research papers and reports produced within the European Union are scrutinized as those are comparing and describing the situation at the EU level. The sources used are identified in the reference list.

The draft version of the revised STCW-F Convention and new Code, which is used on this thesis, is the most recent available, HTW sub-committee working paper (HTW 7/WP.7) with further considerations done on the ongoing corresponding group. (Corresponding group established in the HTW 7/16)

The following references are used throughout the work:

*STCW-F* meaning the current Convention in force.

*Draft of the Convention / Code* meaning the most recent draft as in the document HTW 7/WP.7.

The IMO documents are being referred to using abbreviations as that way those can be accessed much faster than using any other reference technique.

### **1.3 Methods and procedures**

Qualitative research can be described understanding when quantitative is explanatory. (Tuomi & Sarajärvi 2009, 66) This study is a qualitative desk research mostly based on examining and comparing different levels of national and international legislation, regulations and rules. Quantitative methods are not used.

Based on the results and conclusions, some suggestions for lawmakers may be given but mostly those are intentionally left out, as the appropriateness of possible amendments to the legislation should be considered with a larger group of experts already at the initial phase. The thesis is intended to be a base and source for those elaborations.

Although the subject and the field of study are an integral part of writer's official duties, the study is made as a private person during out of office hours and there is no commissioner for the work. The conclusions and opinions do not represent the official viewpoint of the agency.

### **1.4 Previous research**

There are not known previous academic research regarding the subject. When the former decree on fishing vessel safety (65/2000) was prepared, a working group had considered the STCW-F requirements with certain extent, this will be discussed later in more detail. (Ministry of Transport, 1995)

## 2 The STCW-F 1995 Convention

### 2.1 Ratifications of the STCW-F Convention

The Convention entered into force 29 September 2012, 12 months after gaining 15 ratified states. As of September 2021, there are 33 contracting states representing 8.64 % of the world tonnage. Out of the Baltic Sea states, Russia (from year 1996), Denmark (1998), Latvia (2007) and Lithuania (2012) are parties of the Convention. Other EU member states that have ratified the Convention are Belgium, Netherlands, Portugal, Romania and Spain. (IMO, Status of Conventions)

According to the report from the European Commission to the European Council, the Commission had inquired the member states about their intentions with the STCW-F in March 2018. The member states were not that active in responding and only after two rounds of reminders 20 responses were received leaving five states that have not ratified nor answered to the Commission. The responses are described below. (European Commission, 2019)

Six member states reported that the ratification is in process: France, Germany, Greece, Ireland, Sweden and United Kingdom, which still was an EU member state by then. Greece and Sweden had mentioned the comprehensive review on their replies.

Estonia replied that they are using STCW requirements for the fishing vessels of 24 meters or more in length and that they have no intentions for ratification as the fishing sector is small and there are only 24 vessels of more than 24 meters.

According to the Commission's report, "*Finland has not started the ratification of the STCW-F Convention arguing that there are only few fishing vessels flying the Finnish flag that would fall under the scope of this convention*".

Slovenia reported that all their fishing vessels are less than 24 meters and have less than 750 kW and hence considers the Convention not needed. Bulgaria communicated that they have no vessels where the Convention would be applicable.

Austria, Czech Republic, Hungary and Luxembourg, all landlocked states have informed that their plan is not to ratify as there are no fishing vessels, ports or training institutions for fishermen.

Croatia, Cyprus, Italy, Malta or Slovakia did not answer to the Commissions inquiry.

## 2.2 Structure of the STCW-F Convention

IMO has published several guidelines/resolutions on training of fishing vessel personnel from the eighties onwards before publishing the STCW-F 1995 Convention. Those have served as a basis for the Convention. (Ministry of Transport, 1995, 11) One of the resolutions is e.g. resolution A.539(13) *Certification of skippers and officers in charge of a navigational watch on fishing vessels of 24 metres in length and over* of the year 1983.

The structure of the STCW-F 1995 Convention currently in force is following:

**Final Act** of the International Conference on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995, which is mainly a protocol of the conference and does not contain substantial content.

**Attachment 1** contains 15 articles being the directive base of the actual Convention. The articles handle "(1) *general obligations*, (2) *definitions*, (3) *application*, (4) *communication of information*, (5) *other issues and interpretation*, (6) *certification*, (7) *national provisions*, (8) *control*, (9) *promotion of technical cooperation*, (10) *amendments*, (11) *signature, ratification, acceptance, approval and accession*, (12) *entry into force*, (13) *denunciation*, (14) *depository*, and (15) *languages*."

The articles are excluded from the revision of the Convention, so no alterations or amendments to the articles are going to be introduced. (MSC 96/25, 57 and HTW 3/19 annex 3)

**Annex** is the substantial content of the Convention divided into four chapters. The chapters contain regulations. Chapter I is "*General provisions*", Chapter II "*Certification of skippers, officers, engineer officers and radio operators*", Chapter III "*Basic safety training for all fishing vessel personnel*", and Chapter IV "*Watchkeeping*".

**Appendixes 1 to 3** contain model forms for certificates and endorsements.

**Attachment 2** contains 9 resolutions, e.g. resolution 5 on *Training of fishing vessel personnel in personal survival techniques* giving guidance in a detailed way what kind of instruction all personnel should receive corresponding largely the second column of the Knowledge, Understanding and Proficiency (KUP) -tables of the STCW Code and e.g.

resolution 4 recommendation on deck-hands training for fishing vessels over 24 meters in length.

The structure of the annex is going to change totally in the comprehensive review. This will be studied in Chapter 2.4.

## 2.3 The Articles of the STCW-F Convention

The articles will remain as they are even after the comprehensive review. (MSC 96/25, 57 and HTW 3/19 annex 3) The most relevant parts of the articles regarding the possible ratification are described shortly below.

Article 1.2 - *"The Parties undertake to promulgate all laws, decrees, orders and regulations and to take all other steps which may be necessary to give the Convention full and complete effect" ...* Although being rather standard convention text, it is highlighted here meaning that partial ratification is not possible.

Article 2.7 - *"Fishing vessel or vessel means any vessel used commercially for catching fish or other living resources of the sea."* The result of the definition is that basic safety training is required on every fishing vessel, regardless the size. (STCW-F Chapter III) Other regulations have limitations based on the length, operation area or propulsion power. (STCW-F Chapter II)

Article 2.8 - *"Seagoing fishing vessel means a fishing vessel other than those which navigate exclusively in inland waters or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply."*

Article 3 - *"The Convention shall apply to personnel serving on board seagoing fishing vessels entitled to fly the flag of a Party."* These two, articles 2.8 and 3 leave some freedom to a party to exclude even some coastal fishing depending on the interpretation of wording *"closely adjacent to, sheltered waters."* However, the current national catch area I, *"lakes and the inner and outer archipelago to the outer limit of Finland's inner territorial waters"* (1687/2009, section 2, subsection 1, paragraph 27) might be too wide and fishing at least in the outer archipelago could be seen as seagoing fishing. The wording *"areas where port regulations apply"* reflects that expansive interpretation should not be made here.

Article 7 on national provisions is rather similar to the 1978 STCW Convention regulation I/5. It requires parties to establish processes e.g. for withdrawal, suspension or cancellation

of certificates and to prescribe penalties or disciplinary measures. These have not been scrutinized thoroughly as part of this thesis as the assumption is that our national legislation, especially the Act on Transport Services (320/2017) Chapter 31 should contain required provisions already.

Article 12.3 - *"For States which have deposited an instrument of ratification, acceptance, approval or accession after the date on which the Convention entered into force, the Convention shall become effective three months after the date of deposit of the instrument."*

This is studied in more detail on the next chapter, as it is of importance regarding the schedule of a possible ratification of the Convention.

## **2.4 The review of the 1995 STCW-F Convention**

The initiative for a comprehensive review of the Convention came from Canada, Iceland, Japan, New Zealand and Norway when they made a proposal for it to the 95<sup>th</sup> session of IMO Maritime Safety Committee (MSC) held in June 2015. The review was seen necessary inter alia, because of some of the Convention's requirements might not be any longer in line of the fishing industry standards and hence make it unfavorable to states to ratify the Convention. Generally, the popularity of the Convention has been low. The Convention was adopted in 1995 but it entered into force not until 2012 after getting the sufficient number of ratifications. During the time of their proposal in 2015, only 4.12 % of the world fishing vessels were bound by the Convention. The proposal of Canada et.al was that the review should be limited to the annex of the Convention. (MSC 95/19/3)

The MSC approved to include the review on the agenda of the HTW Sub-committee, which was instructed to first define the scope of the review. (MSC 95/22, 68-69) The HTW at its 3<sup>rd</sup> session held in February 2016 decided the principles and provisional scope of the review, which were at conditional level. Probably the most important of those were that the standards or requirements should not be downscaled and the articles of the Convention should not be amended. The scope was provisional and likely to change over time when the work proceeded. (HTW 3/WP.4, 3-5 and annexes 2-3 and HTW 3/19 annex 3) These were approved by the MSC 96<sup>th</sup> session in May 2016. (MSC 96/25, 57)

The work has continued since then at the HTW. This includes sub-committee sessions from 4 to 7, working groups established during sessions, correspondence groups between the sub-committee meetings and one intersessional meeting held in February 2020.

The whole structure of the Convention is subject to change. The new structure would follow the 1978 STCW Convention with the “Convention side” (precisely annex to the Convention) containing regulations, and the Code consisting of compulsory part A and recommendatory part B. The structure would be based on functional approach with seven specific functions and three levels of responsibility; support, operational and management levels. Instead of current appendixes to regulations with less detailed lists of knowledge requirements, KUP-tables would be introduced. (Draft Convention and Code)

Finland has been following the work at the IMO and participated in working and corresponding groups but has not been actively developing or taking positions during the work. As the current position has been to stay out of the Convention, a neutral approach has been chosen. The aim has been to follow the work and recognize components of the regulations that could be unfavorable to Finland. Favorable positions may have been supported at the forums. The writer has personally been involved in the work since the HTW 5 in July 2018.

The current schedule for the comprehensive review is as follows:

Table 1. Work plan for the completion of the comprehensive review of the 1995 STCW-F Convention.

No	Work item	Meeting	Date
1	Re-establishment of the Correspondence Group  Note: The coordinator of the CG will have the flexibility to convene as many remote intersessional meetings as necessary	HTW 7	19 February 2021
2	Finalization of the revised Convention and new Code	HTW 8	2022
3	Consideration and approval of the revised Convention and new Code	MSC 107	May 2023
4	Development of Guidelines on the Medical Examination of Fishing Vessel Personnel	Joint ILO/IMO Working Group	2022-2023 biennium
5	Adoption of the revised Convention and new Code	MSC 108*	Spring 2024

(HTW 7/WP.7 Annex 4)

If the adoption takes place in the spring of 2024 as currently planned, it *"shall be deemed to have been accepted"* alternatively 1) after two years, or 2) after a different specific period



determined "by a two-thirds majority of the Parties present and voting in the expanded Maritime Safety Committee." (STCW-F Article 10.2.7) It is difficult to see reasons why there would be any other choice except the standard two-year period of acceptance.

The entry into force will be "*six months after the date on which it is deemed to have been accepted.*" (Article 10.2.9). If the date of adoption was e.g. 1 July 2024, the date of acceptance would be 1 July 2026 and entry into force then 1 January 2027.

The amendments to the Convention can be also made by a conference instead of by the Maritime Safety Committee as per Article 10.2.3 of the Convention. Nevertheless, it seems to be only a theoretical option regarding the ongoing process and it is not studied further in this thesis.

If Finland liked to ratify the Convention, it would be advisable to synchronize it with the actual date when the amendments to the Convention enter into force. According to the Article 12.3 of the STCW-F Convention, "*For States which have deposited an instrument of ratification, acceptance, approval or accession after the date on which the Convention entered into force, the Convention shall become effective three months after the date of deposit of the instrument.*" If Finland ratified the Convention already before the amendments, it would mean that first the current version of the Convention should be implemented and then only shortly after would follow the implementation of the amendments. This would create unreasonably heavy burden to all stakeholders.

### **3 The certification and training requirements for fishing vessel personnel on Finnish vessels**

#### **3.1 The certificates and requirements for issuance**

There are currently four different certificates of competency for fishing vessel deck officers in Finland. Those are regulated, as all certificates, by the Government Decree on the Manning of Ships and Certification of Seafarers. (508/2018) The deck officer certificates and requirements for issuance are following, from the lowest to the highest in rank:

##### ***"Section 29 Boatmaster's certificate (category B) for fishing vessels***

*Every candidate for certification as boatmaster (category B) on board fishing vessels shall:*

*1) be not less than 18 years of age;*

2) hold a certificate issued by a university of applied sciences or institute providing maritime education and training or by an institute entitled to provide education and training leading to a vocational qualification in fishery, or a certificate issued by the Finnish Transport and Communications Agency to the effect that the candidate is familiar with:

a) the Rules of the Road at Sea and the Rules of the Road on Inland Waterways, aids to navigation, nautical charts, the compass, compass deviation, how to plot bearings and courses, how to use the log and the lead line, and how to keep a ship's log;

b) the provisions on ship surveys and on the master's responsibilities, as applicable, and the basic maritime legislation on social security matters; and

c) to a sufficient extent, the construction, maintenance and operation of internal combustion engines, as well as the major provisions concerning them; and

3) have completed not less than 12 months of seagoing service in the deck department of a fishing, cargo or passenger vessel.

The requirements under subsection 1, paragraph 2 may be substituted by boatmaster training in accordance with section 22.

The Finnish Transport and Communications Agency may approve the substitution of the seagoing service referred to in subsection 1, paragraph 3 by seagoing service on board other vessels than fishing, cargo or passenger vessels.

### **Section 30 Boatmaster's certificate (category A) for fishing vessels**

Every candidate for certification as boatmaster (category A) on board fishing vessels shall:

1) be not less than 18 years of age;

2) be a qualified fishing vessel skipper or a skipper in domestic service; and

3) have completed 8 months of seagoing service in the deck department of a fishing, cargo or passenger vessel.

The Finnish Transport and Communications Agency may approve the substitution of a maximum of 4 months of the seagoing service referred to in subsection 1, paragraph 3 by supervised onboard training.

### **Section 31 Skipper's certificate (category B) for fishing vessels**

Every candidate for certification as skipper (category B) on board fishing vessels shall:

1) be not less than 18 years of age;

2) be a qualified fishing vessel skipper; and

3) have completed 24 months of seagoing service in the deck department of a fishing vessel of not less than 12 metres in length.

The training referred to in subsection 1, paragraph 2 may be substituted by education and training for watchkeeping officers.

The Finnish Transport and Communications Agency may approve the substitution of a

*maximum of 12 months of the seagoing service referred to in subsection 1, paragraph 3 by training or supervised onboard training included in the education and training for watchkeeping officers.*

### **Section 32 Skipper's certificate (category A) for fishing vessels**

*Every candidate for certification as skipper (category A) on board fishing vessels shall:*

- 1) be not less than 18 years of age;*
- 2) be a qualified fishing vessel skipper; and*
- 3) have completed 12 months of seagoing service as deck officer or skipper of a fishing vessel of not less than 12 metres in length.*

*The training referred to in subsection 1, paragraph 2 may be substituted by education and training for watchkeeping officers.*

*The Finnish Transport and Communications Agency may approve the substitution of a maximum of 6 months of the seagoing service referred to in subsection 1, paragraph 3 by seagoing service as a deck officer on a cargo or passenger ship."*

## **3.2 The national certification requirements for different types of fishing vessels**

Fishing vessels are divided into three categories based of the length. The definitions are on the Act on Transport Services (320/2017, section 97 subsection 1 paragraph 19):

*"Fishing vessel classes mean classes I, II and III, with vessels of less than 15 metres in length belonging to class I; vessels of 15 metres but less than 24 metres in length belonging to class II; and vessels of not less than 24 metres in length belonging to class III."*

The certification requirements are stipulated on section 103 of the Act on Transport Services:

*"The skipper of a fishing vessel of class I shall hold a boatmaster's certificate (category B) for fishing vessels in catch areas I and II and a boatmaster's certificate (category A) for fishing vessels in catch area III.*

*The skipper of a fishing vessel of class II shall hold a boatmaster's certificate (category A) for fishing vessels.*

*The deck officer of a fishing vessel of class III shall hold a skipper's certificate (category B) for fishing vessels, whereas the skipper shall hold a skipper's certificate (category A) for fishing vessels.*

*The skipper may serve as the chief engineer officer only on a fishing vessel powered by main propulsion machinery of less than 350 kilowatts propulsion power on which the location of the machinery controls is such that the vessel may be manoeuvred from the conning position.*

*On fishing vessels powered by main propulsion machinery of 350 kilowatts propulsion power or more but less than 750 kilowatts propulsion power, one crew member shall hold an engine attendant's certificate.*

*If a fishing vessel is powered by main propulsion machinery of 750 kilowatts propulsion power or more, the chief engineer officer shall hold a watchkeeping engineer's certificate.*

*A person who has received safety training for fishing vessels and who holds:*

*1) a deck officer certificate may serve in the capacity of deck officer on a fishing vessel of class III, engaged in fishing in the Baltic Sea area;*

*a skipper of a fishing vessel of class III is, in addition, required to have not less than 12 months of seagoing service in the capacity of deck officer, of which not less than 6 months is service in the capacity of deck officer or skipper on a fishing vessel of 12 metres in length and over;*

*2) a skipper's certificate for domestic service may serve in the capacity of skipper of a fishing vessel on which the skipper shall hold a boatmaster's certificate (category A) for fishing vessels;*

*3) a boatmaster's certificate may serve in the capacity of skipper of a fishing vessel on which the skipper shall hold a boatmaster's certificate (category B) for fishing vessels."*

When comparing the national definitions of different fishing vessel classes with the STCW-F regulations, the Convention is mainly applicable to our class III fishing vessels being not less than 24 meters in length. In the engine department, the limit of application is the propulsion power of 750 kW or more. (STCW-F Chapter II and draft Convention) Only Convention's requirements of basic safety training are applicable to all fishing vessels. (STCW-F Chapter III and draft Convention)

When the Convention is mainly applicable only to our class III vessels where the deck officer shall hold a skippers' certificate (category B) and the master shall hold a skipper's certificate (category A), then these two skipper's certificates and underlying training requirements are the most relevant to the study regarding deck department.

In the engine department, with certain conditions the master itself may serve as the chief engineer on vessels less than 350 kilowatts. For vessels between 350 and 749 kilowatts there shall be a separate chief engineer officer holding a national engine attendant's certificate. For the rest of the vessels, the requirement is watchkeeping engineer's certificate, which is an STCW 1978 -certificate. This will be discussed in more detail in Chapter 4.6.

There are no certificates for fishing vessel deck hands in Finland. (508/2018). The Act on Transport Services only requires that persons working on fishing vessels shall have received safety training for fishing vessels. (320/2017, section 108 subsection 2). This requirement is not applicable on small fishing vessels as described in Chapter 4.8. The Convention does not contain obligatory requirements for the deck hands, there is only a recommendation for *training of deck-hands on board fishing vessels of 24 metres in length and over* (Resolution 4 of the STCW-F) and also after the comprehensive review these would be guidance only

(Draft Code sections B-II/a and B-II/b). A party to the Convention may decide if they follow the guidance and to what extent.

### 3.3 Training requirements

The training requirements for skipper's category A and B trainings are laid down on the regulation of Finnish National Agency for Education for the Qualification requirements of Further Vocational Qualification in Seafaring. According to the regulation, these trainings fulfil the current requirements of the STCW-F for the certification of the skippers of the vessels of over 24 meters in length operating in limited waters. The unit, "*working as a skipper on a fishing vessel*", is 30 study points in length. (Qualification requirements for further vocational qualification in seafaring OPH-2611-2017)

The training requirements of a fishing vessel skipper have been earlier in the vocational qualification in seafaring, not in the *further* vocational qualification as today. It seems that those have been introduced to the vocational qualification requirements only in the year 2005 by a regulation 13/011/2005 of Finnish National Agency for Education. (Regulation 13/011/2005 Amendment to qualification requirements for vocational qualification in seafaring) The government decree of that time on fishing vessel safety (65/2000) required just "*approved training*" for skipper's category A and B certificates (65/2000 sections 48 and 49) without more detailed definition what kind of training that shall be. The decree was amended by the decree 106/2003 and a definition of training containing a reference to qualification requirements was introduced. (Government decree amending the decree on fishing vessels 106/2003)

The initiative for the qualification requirements of fishing vessel skippers came from the labor market organizations of fishermen and consequently the Finnish National Agency for Education nominated a project group to draft the amendments of the decree. (Decision of the Finnish National Agency for Education 26 March 2004) The earlier qualification requirements of the year 2000 did not mention fishing vessel master at all. (Qualification requirements for vocational qualification in seafaring 29/011/2000) It seems that the precise content of *approved training* as required by the decree 65/2000 came only by the amendment to qualification requirement in the year 2005. However, it is safe to conclude that at least from the year 2005 the content of our national fishing vessel skipper's training have remained the same as today. (Qualification requirement 13/011/2005 and its further versions)

### **3.4 Previous legislation on certification and training requirements for fishing vessel personnel on Finnish vessels**

The certification requirements for Finnish fishing vessel personnel have remained same since year 2000 as thoroughly discussed below.

There have been only a few changes during the past decades. About a hundred years ago, decree on merchant vessels (103/1924), Chapter VII contained certification requirements for merchant vessel officers without specifically separating fishing vessels. Requirements for officers on fishing vessels were separated by decree on officers on fishing vessels that came in the year 1931. (108/1931). The certificates required for fishing vessel personnel however were the same as for merchant vessels, meaning that there was not a separate certification system in place. The decree 108/1931 was repealed regarding deck officer's certification by the decree on merchant vessel officers (141/1949) but according to the section 25, engine officer certificate requirements were not repealed. Hence, the requirements for fishing vessel deck officers returned to the same as for merchant vessel deck officers.

The decree on fishing vessels 1 December 1961 (531/1961) was given by the virtue of the maritime act of that time (167/39). According to section 15 of the decree, it repealed the former decree 141/1949 if its sections were in conflict with this new decree. The decree contained requirements for the master of a fishing vessel, which according to section 5 shall have both boatmaster's certificates A and B. There shall additionally be an engine attendant holding an engine attendant B certificate if the propulsion power is less than 100 horsepower and if propulsion power is more than 100 horsepower, then engine attendant A certificate is required. These requirements became applicable also to open-deck fishing vessels on 1 January 1979. These certificates were not fishing vessel specific, they were the same certificates as required for merchant vessels by the decree on merchant vessel officers (141/1949).

The requirements for the issuance of those boatmaster's certificates were given by the decision of the maritime administration on boatmasters. There might have been amendments over time which are not reasonable to trace for this study, but for example according to the decision of the maritime administration given on 15 May 1959, there were five different boatmaster's certificates, from A to E, which were not hierarchical. According to section 3 of the decision, boatmaster's certificate A and B both required 24 months of ship service and theoretical knowledge of e.g. collision regulations, navigation and relevant legislation. Both certificates also included some knowledge of operation of ship machinery. (Decision of the

Finnish Maritime Administration on boatmasters on merchant vessels given on 15 May 1959)

The next amendment to legislation regarding fishing vessel personnel certification and training requirements came as late as in 28 January 2000 by decree on fishing vessel safety (65/2000). The amendment was prepared by a fishing vessel working group appointed by the Ministry of Transport. The members of the group were from the maritime administration, different relevant ministries and from professional organizations for fishermen. The working group published their proposed decree on 12 December 1995. According to the report, the proposed decree was written taking into account the fresh STCW-F Convention so that ratification of the Convention would be possible. The draft decree aims that the Finnish fishing vessel fleet would continue to operate primarily in the same waters as before, namely in the northern Baltic. The catch areas covered by decree would remain in the Baltic Sea and if a Finnish fishing vessel operated further away, the maritime administration would give additional provisions specifically to that vessel. (Ministry of Transport, 1995)

The decree (65/2000) entered into force 15 February 2000 and according to the presentation memorandum it was formulated so that ratification of the STCW-F Convention would be possible. (Presentation memorandum of decree on fishing vessels (65/2000) As mentioned in the previous chapter, the training system however covered only limited water requirements, not requirements for unlimited waters.

The decree (65/2000) was later repealed and the certification sections were transferred to the Government Decree on the Manning of Ships and Certification of Seafarers (1797/2009) as such, combining both merchant and fishing vessel personnel certification requirements to the same place. After that, these sections were transferred to a new corresponding decree (166/2013) and further to the decree (508/2018) which is current in force.

### **3.5 Plans to ratify the new Convention in the '90s**

The former Finnish Maritime Administration (FMA) has supported ratification of the Convention freshly after its publication. There have been meetings and correspondence with the Ministry for Foreign Affairs and FMA where clear message from the latter have been that Finland should ratify the Convention. However, the trail of memorandums ends on 6 September 1996 when a report of a meeting end that *"after access to the above-mentioned information, a decision is made on possible accession to the Agreement during the autumn*

of 1996." (Ministry for Foreign Affairs of Finland, 1996, own translation) More documentation could not be found by the registry office of the Ministry. (information received 24 September 2021)

The interpretation of that time has been that the Baltic Sea would fall under the definition of limited waters in the Convention and hence lower qualification requirements could be applied on vessels fishing only in the Baltic. Respectively, the Finnish training system and requirements were compared against requirements for limited waters, not for unlimited waters. (Ministry of Transport 1995, 12, 15-16) There are also intern flow charts drafted in the Finnish Maritime Administration illustrating the certification system where limited waters are explained with words "*Baltic Sea*" and a 17 October 1991 dated memorandum of fishermen training stating that "*Baltic Sea may be considered to be limited waters*" as meant on the proposal drafted on the IMO STW sub-committee. (Unpublished printouts of FMA, own translations)

It remains unclear why the ratification did not go further after the initial enthusiasm but the explanation could be that there was no real need for ratification. From a safety perspective, the training system was already lined up with the Convention meaning that although not officially being STCW-F certificates, the underlying knowledge and competencies were almost the same. Hence, a similar level of safety was already achieved.

Finland became a member of the European Union the same year the STCW-F Convention was adapted, in the year of 1995. Perhaps the spirit of that time has been that ratifying the Convention would be a natural step for an EU member state. Maybe also the amount of workforce coming from other EU states was expected to be higher than it actually appeared to be. If the fishing industry in Finland had no need to hire foreign workforce, they would have not demanded ratification and common certification either. The STCW-F also gained ratifications rather slowly (it entered into force as late as in 29 September 2012) and hence it did not form a common certification system, which would promote the free movement of workforce. If things were running good enough without ratification, there were not grounds starting the process.



## 4 Study of the central provisions of the Convention

### 4.1 The definition of limited waters

The main division in the Convention is between limited and unlimited waters. There are limited waters officers and skippers and there are unlimited waters officers and skippers. The requirements in limited waters are lower than in unlimited waters.

Unlimited waters "*means waters beyond limited waters*". (STCW-F Chapter I, regulation 1.15) This would remain the same also after the review. (Draft regulation I/1.15 of the Convention)

The definition of limited waters reads as follows:

*"Limited waters means those waters in the vicinity of a Party as defined by its Administration within which a degree of safety is considered to exist which enables the standards of qualification and certification for skippers and officers of fishing vessels to be set at a lower level than for service outside the defined limits. In determining the extent of limited waters, the Administration shall take into consideration the guidelines developed by the Organization."* (Draft Convention regulation I/1.14)

The current draft of the Convention would otherwise leave the definition as it is but words "*skippers and officers*" are proposed to be replaced by words "*all fishing vessel personnel*". (Draft Convention regulation I/1.14) This was agreed, in principle, by the HTW 7. (HTW 7/16, 24)

This might be seen as a downscaling of the requirements, as it would extend the authority of an administration to lower requirements also regarding other fishing vessel personnel, not just skippers and officers. The terms of reference for the comprehensive review pointed out that "*the review should not downscale existing standards and requirements of the Convention*" (HTW 3/19 annex 3, 1). It is good to follow how the outcome of the text will be.

However, the most significant thing on the definition is its geographical limits or precisely the lack of those. The extent of limited waters may be interpreted many ways, some party may put the limit e.g. on 200 nautical miles when another may set this to just 50 nautical miles. For this reason, the HTW 5 sub-committee decided to request IMO's Legal Affairs and External Relations Division legal advice on the definition. On their answer, they

provided history of the definition in some international legal instruments and its relation to the United Nations Convention on the Law of the Sea (UNCLOS). (HTW 6/6/1)

Summing up, the Legal Affairs and External Relations Division wrote:

*"It is the prerogative of the competent authority of a Party that has ratified the STCW-F Convention to decide which areas could be considered as "limited waters", taking into consideration the spirit and objectives of the Convention to ensure safety of crew of fishing vessels. If the coastal State and the flag State do not share the same definition of "limited waters", UNCLOS provides that nationals of other States fishing in the territorial sea, contiguous zone or the EEZ shall comply with the laws and regulations of the coastal State, including requirements for the training of fishing personnel."* (HTW 6/6/1, 7)

The HTW sub-committee further noted the interpretation of the Legal division. (HTW 6/13, 16)

The definition of limited waters in the Convention contains a footnote referencing to the annex 1 of resolution A.539(13) *Certification of skippers and officers in charge of a navigational watch on fishing vessels of 24 metres in length and over* of the year 1983. The resolution is one of those predecessor resolutions before the STCW-F Convention saw the light of the day. According to the resolution, administrations should take into account the following when determining their limited waters areas:

- "1 the size of the fishing vessels concerned;*
- 2 the distance from a port of refuge;*
- 3 the provision of electronic position-fixing devices;*
- 4 the provision of rescue services and communication facilities;*
- 5 the provision of meteorological broadcast services;*
- 6 the weather conditions normally prevailing in the waters;*
- 7 the limitations imposed due to ice accretion;*
- 8 normal navigational hazards; and*
- 9 traffic conditions".* (Resolution A.539(13) annex 1)

These recommendations of the resolution were not brought to the Convention any binding way as footnotes according to the common interpretation are not part of the IMO instruments. (IMO Resolution A.911(22)). These can still be used as guidance when interpreting the matter.

The Finnish interpretation is that all our current catch areas would fall under the definition of limited waters. This emerges e.g. from the preparatory work of national training requirements as described in Chapter 3.4. In practice, Finnish catch areas and hence limited waters covers the Baltic Sea as far as the parallel of the Skaw between Denmark and Sweden. (320/2017, section 97 subsection 1 paragraph 20)

## **4.2 Differences in training of unlimited and limited waters skippers**

One aspect to consider regarding the extent of limited waters is the difference in training in the Convention between unlimited and limited waters. Does the unlimited waters KUP-tables include additional requirements necessary in the intended or current limited waters area? When comparing e.g. KUP-tables for unlimited and limited waters skippers, the requirements for unlimited skippers are more comprehensive on the following competences or KUPs:

- Position determination by celestial observations
- More comprehensive KUP on electronic navigational aids
- Thorough knowledge of IAMSAR-manual
- More comprehensive meteorology and oceanography, including tropical revolving storms
- Rigging and use of jury steering
- Adequate knowledge of the English language, instead of basics
- Transmit and receive information by visual signaling
- Ability to demonstrate application on stability data, instead of knowledge and ability to use
- More comprehensive knowledge on international maritime law

(Tables A-II/1 and A-II/3 of the draft Convention) The comparison is not made to full accuracy for the purpose of this study.

Some added KUPs can be considered unnecessary in the Baltic, e.g. the position fixing by celestial means is not that important when coasts are close and visual signaling is very seldom used or needed nowadays. Knowledge of maritime law is rather easy to tailor made for the own limited waters area of a party, so even limited waters skippers should have

sufficient knowledge of maritime law if just the national requirements are determined correctly by the administration. What comes to English skills, it may be reasonable to demand more than just basics if the limited waters areas really extend to international waters. However, these additional KUPs on the unlimited skipper compared to the limited waters skipper can barely be seen as an obstacle to our current interpretation of limited waters, which is the whole Baltic Sea.

### **4.3 No More Favourable Treatment**

The article 8.4 of the Convention contains the No More Favourable Treatment principle meaning that coastal states shall ensure that the fishing vessels of non-parties must not receive less stringent treatment than those under the Convention.

There is no water area in the Baltic Sea that would not be claimed to be the Exclusive Economic Zone (EEZ) of some state. E.g., where the Finnish EEZ ends in the Sea of Bothnia, the Swedish EEZ begins. (Flanders Marine Institute)

If Finland stayed out of the Convention and a Finnish fishing vessel would sail e.g. in Latvian waters, they could demand the same level of qualifications they do for their own fishing vessels meaning that the STCW-F requirements apply. If exercised fully, this would hamper the fishing operations of non-party vessels in the waters of parties to the Convention. However, Traficom is not aware of demands of that kind by the Baltic Sea coastal states.

### **4.4 Limited waters of the states surrounding the Baltic that are party to the STCW-F Convention**

Because if there is a contradiction, the laws and regulations of a coastal state will override those of a flag state, it is of importance, how the states surrounding the Baltic Sea are interpreting the limited waters and what kind of limited waters areas they have on their own. The definitions of current parties to the Convention are listed below:

**Denmark** - *"Limited waters is defined as trade south of 62° N latitude, north of 48° N latitude and east of 12° W longitude, trade in the Baltic Sea, trade on the Faroe Islands and Faroe Banks as well as trade along the coasts of Greenland at a distance of not more than 200 nautical miles from the coast (the base line)." (Danish Maritime Authority, Guidance on requirements for the crew on fishing vessels)*

**Latvia** - *"limited fishing area - the Baltic Sea, including gulfs and straits up to the meridian of Cape Skagen"*. (Latvia Cabinet Regulation No. 895 Regulations Regarding Certification of Seafarers, part A, section 2.6)

**Lithuania** - limited waters include *"the Baltic Sea area, which includes the Baltic Sea with the Gulf of Bothnia, the Gulf of Finland and the gateway to the Baltic Sea between the Skagen parallel in the Skagerrak, located 57 degrees 44 minutes north latitude."*  
(information received from the Head of Seafarers Training Center of Lithuanian Maritime Academy by e-mail on 30 September 2021 and Lithuanian order Nr. 3-376)

**Russia** - is party to the Convention but there is no definition of limited waters in the legislation because Russia has abandoned using a separate certification system for fishing vessel personnel and is using the STCW certificates. (information received from the Russian representative in the corresponding group, senior lecturer of Admiral Makarov State University of Maritime and Inland Shipping by e-mail on 17 October 2021)

The Finnish catch areas covering the whole Baltic Sea are hence well in line with the limited waters of the Baltic Sea states that are parties to the STCW-F Convention.

## 4.5 Deck officer certification

The amendments to the training of unlimited waters skippers are not researched in this paper because there is no training program for unlimited skippers in Finland and it would be needed anyway to be created from the beginning. The differences in unlimited and limited skipper trainings as proposed in the comprehensive review are listed in Chapter 4.2.

### Amendments to the training of limited waters skipper

When comparing the current STCW-F requirements for limited waters skippers in appendix to regulation 3 and the proposed new requirements on the draft table A-II/3, the following amendments can be recognized:

- Voyage planning extended to ocean tracks and to all meteorological conditions
- Clarification that determining compass errors is to be made by terrestrial means
- Use of VTS reporting systems

- Ability to calculate tidal conditions instead of ability to use navigational publications on tides and currents
- More comprehensive skills on navigational systems than earlier, including ECDIS and ARPA
- Knowledge of internationally recognized stability criteria and conditions
- Deeper understanding and knowledge of fire prevention and life-saving, including also maintenance of systems
- Somewhat deeper knowledge on medical care on board

(STCW-F Chapter II appendix to regulation 3 and table A-II/3 of the draft Code)

If Finland ratified the Convention, those amendments should be implemented into the training programs. It could be reasonable to implement the amendments in any case as those are quite well-founded amendments even in the Baltic Sea fishing. Perhaps the only ones less needed of these are the ability to calculate tidal conditions and ocean voyage planning.

Currently, the Finnish training of fishing vessel skippers is in line with the STCW-F provisions for limited waters skippers. There is no separate training program for mates in Finland but the current training is the same for mates and skippers. (Qualification requirements for further vocational qualification in seafaring OPH-2611-2017) It has several advantages. Even on larger fishing vessels, there are usually just two deck officers; a skipper and a chief mate. If something happens to the skipper, the chief mate may be obliged to assume the control and command of the entire vessel. Both, during normal operations and in the case of a sudden incapacity of the skipper, it is safer if both deck officers have similar theoretical training. It is also easier to grant dispensations if needed when there is no difference in training, only in the amount of seagoing service. Additionally, with a single training program, there is a natural career path from mate to skipper without a need for supplementary training. In a small country with the small number of students, it might be unreasonable to separate the trainings between officers and skippers.

The Finnish education and training system does not offer training to an unlimited officer or a skipper of fishing vessels. (Qualification requirements for further vocational qualification in seafaring OPH-2611-2017) If Finland became party to the Convention, it could be sufficient to amend the legislation so that it would take into account also unlimited certificates. However, it should not be needed to actually have those trainings available if

there is no real demand for those. The interpretation here is that still we could be deemed to give the Convention full and complete effect.

The national legislation contains already now Certificates of Proficiency that have never been issued by Traficom, e.g. Type-rating certificate for high-speed craft based on the International Code of Safety for High-Speed Craft adopted by IMO. (508/2018, section 75)

If considering the situation in a state without any corresponding authority as Finnish National Agency for Education who could be responsible for creating syllabi, it cannot be required that private training providers should create a training without real demand and incoming students. The fact that Finland has a suitable authority cannot put us in a more unfavourable position than countries lacking similar authority.

#### **4.6 Engineer officer certification**

The regulations regarding fishing vessel engineer officer certificates are currently under the revision at the IMO corresponding group on the comprehensive review of the STCW-F Convention. The group has not yet decided the proposed wordings on all paragraphs. Some paragraphs still have several wording options that the group is discussing. It is advisable to confirm the outcome of the work before making further conclusions. (e-mail correspondence, autumn 2021)

It is proposed that completely new regulation on certification for officers in charge of an engineering watch for the fishing vessels of 750 kW propulsion power or more would be introduced. (Draft Convention regulation II/5-2) Currently, the Convention regulates only chief and second engineer officers. (STCW-F Chapter II regulation 5)

As discussed earlier, the intention in the 90's was to line up our national certification requirements with the Convention in order to make future ratification possible. The presentation memorandum of the decree of fishing vessels (65/2000) and the fishing vessel working group report both states that the engine officer certificates of the STCW-F Convention are corresponding with the Finnish lowest Certificate of Competency for engineer officer, and hence there is no need for a new certificate. The working group report additionally noted that *"however, the problem remains with training requirements different from the Convention of the national provision"* (Ministry of Transport, 1995, 16 own translation and presentation memorandum of decree on fishing vessels 65/2000).

The lowest certificate means the watchkeeping engineer certificate (STCW III/1) which is required by the Act on Transport Services for chief engineer on fishing vessels with 750 kW propulsion power or more. (320/2017 section 103 subsection 6) To get that certificate, as a part of the approved training program a combination of 12 months seagoing service and workshop service is required. Alternatively, if not as a part of a training program, the applicant has to have at least 36 months of seagoing service and workshop service. (508/2018 section 36, subsection 1, paragraph 3)

The required seagoing service is not sufficient to fulfil the STCW-F requirements for chief engineer, as on the vessels of 750 kW propulsion power or more, the Convention requires:

Chief engineer shall *"have not less than 24 months approved seagoing service, **in the engine-room**, of which not less than 12 months shall be served while qualified to serve as second engineer officer or as officer in charge of an engineering watch in a manned engine-room."* (Draft Convention regulation II/5-1.3) The bold words are proposed amendments to the current Convention text. (STCW-F Chapter II, regulation 5.2.4)

Second engineer officer shall *"have not less than 12 months approved seagoing service in the engine-room; however this period may be reduced to not less than 6 months if the Party requires special training which it considers to be equivalent to the approved seagoing service it replaces."* (STCW-F Chapter II, regulation 5.2.3) This regulation is not subject to change. (Draft Convention regulation II/5-1.2)

The Finnish fishing vessels are relatively small and engine room arrangements simple. According to the issued Minimum Safe Manning Documents to Finnish fishing vessels, any other engineer officers than chief engineer are not required on board. In other words, there are no second engineers or watchkeeping engineers required on the Finnish fishing vessels. (Traficom Transport register, 28 November 2021) When there are no lower rank engineer officers, there is no simple way to collect seagoing service either. It is quite unlikely that larger fishing vessels would be brought under the Finnish flag, at least not in significant numbers. It would mean in practice that the required seagoing service for the certification of chief engineer would have to be collected on merchant vessels or alternatively, the fishing vessels would be manned by people holding STCW certificates as made possible by the Convention. (STCW-F Chapter I, regulation 3.7 and draft Convention regulation I/3.7) If anyway people planning to work as engineers on fishing vessels would have to collect seagoing service from merchant vessels, they would already have STCW certificates. Hence,



there would not be any real need for a training system for fishing vessel engineers. Additionally, when the STCW-F certificates are not accepted on the vessels covered by the 1978 STCW Convention (the STCW does not contain similar provision than the STCW-F Regulation 3.7), it might not be wise to get oneself an education which is accepted on fishing vessels only. The same problematic applies to all states with small fishing vessel fleets.

The increase of requirements for chief engineer is rather significant challenge considering the possible ratification. Even now, there is lack of engineer officers also on the merchant vessels and many shipowners have told that they are struggling to find qualified engineers. This can be seen e.g. on the numbers of dispensation applied for engineers (Traficom Transport register). As all the current fishing vessels that are over 750 kW are still less than 3000 kW (Traficom Transport register, 28 November 2021), the required STCW certification for the chief engineers of the current Finnish fishing vessels fleet would be Chief engineer, less than 3000 kW (STCW III/3). It would not be possible to issue dispensations for watchkeeping engineers (III/1) to serve in a position where chief engineer, less than 3000 kW (III/3) is required, because the dispensation can be granted one-step higher in rank only. (1687/2009 Section 13, subsection 3 and STCW Article VIII/2 and STCW-F Chapter I regulation 9.2)

Update from watchkeeping engineer (III/1) to chief engineer, less than 3000 kW (III/3) means additional training according to the section A-III/3 of the STCW Code and at least 24 months "*as an engineer officer in engineering officer duties on a motor vessel powered by main propulsion machinery of 750 kW propulsion power or more.*" (508/2018 sections 37 and 38) The supplementary training itself should not be a big problem as it is a rather short course, approximately a week. (Kotka Maritime Centre) If not covered by the transitional provisions, the requirement of 24 months seagoing service could cause situations where current fishing vessel engineers could not continue in their position and shipowner should find a replacing engineer. Then the engineers not qualified to continue their work as a chief engineer should find alternative employment in order to collect the remaining seagoing service. However, the interpretation here is that existing chief engineers would be covered by the transitional provisions and they could continue in their professions as discussed in Chapter 4.15.

#### 4.7 The substitution of fishing vessel training/certificates with STCW training/certificates

When applying for category A or B fishing vessel skipper's certificates, the training of a fishing vessel skipper can be substituted by a training of a watchkeeping officer (STCW A-II/1) according to the Government Decree on the Manning of Ships and Certification of Seafarers. (508/2018, sections 31 and 32) The provision has been the same since the decree 65/2000 and always transferred to current decrees. (65/2000 sections 48 and 49, 1797/2009 sections 42 and 43, 166/2013 sections 30 and 31, 508/2018 sections 31 and 32)

The regulation 3.7 of the STCW-F Convention allows the holders of *"any appropriate certificates issued under the provisions of the 1978 STCW Convention, for the holder to serve as a Chief Engineer Officer, an Engineer Officer or Radio Operator, shall be deemed to be corresponding certificate for the purposes of paragraph 1 with regard to fishing vessels."* (STCW-F Regulation 3.7) There are no planned substantial amendments to this regulation. (Draft Convention regulation I/3.7) Hence, all deck officers shall have full and complete STCW-F certification and STCW certificates can not be accepted as direct substitutions. This means that merchant deck officers wishing to work on fishing vessels should at least apply for an STCW-F certificate and perhaps do some additional training. However, all four deck STCW-F deck officer certificates (skipper/officer and unlimited/limited waters) have similar substitution clauses in the Convention, e.g. for officers in limited waters: *"A candidate who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention, as amended, need not be reassessed in those standards of competence listed in section A-II/4 of the STCW-F Code, which were required at a higher or equivalent level for the issuance of the corresponding certificate."* (Draft Convention regulation II/4.3) Substantially similar regulations are already in force in the Convention. (e.g STCW-F Chapter II, regulation 4.2.4) Similarly than chief engineers, the current fishing vessel deck officers are interpreted to be covered by the transitional provisions as discussed in Chapter 4.15.

It is not meaningful as part of this thesis to make a full comparison of the STCW-F and STCW trainings in order to determine the need for additional training for merchant mariners. Parties to the STCW-F Convention shall *"give the Convention full and complete effect"*. (STCW-F Article 2.2) It is not possible to leave some required knowledge out but also the trainings shall be full and complete. Although STCW watchkeeping officer training (A-II/1) might be more comprehensive than its STCW-F counterparts e.g. regarding navigation, there

are areas it does not cover at all or not the same way, e.g. fishing vessel maneuvering and handling or fishing vessel power plants. (STCW A-II/1 and e.g draft Code table A-II/3)

Additionally, instead of applying for a skipper's certificate (category A or B) for fishing vessels, those two fishing vessel specific certificates can be substituted with a combination of STCW watchkeeping officer certificate (II/1) and fishing vessel safety training. These two are sufficient to serve as a mate directly but the skipper is additionally "*required to have not less than 12 months of seagoing service in the capacity of deck officer, of which not less than 6 months is service in the capacity of deck officer or skipper on a fishing vessel of 12 metres in length and over.*" (320/2017, section 103 subsection 7)

The provision above has been transferred to the Act on Transport Services from previous decrees; originally it was introduced in 2003 by the decree 106/2003. (Government decree amending the decree on fishing vessels 106/2003) Reasoning for that fishing and merchant vessel certification should be considered equal have been that "*in a small country and within a relatively small profession, it would be appropriate for alternative job opportunities to be available. Since operations on a fishing vessel requires additional knowledge that persons working on the merchant vessel does not have, in all cases fishing vessel safety training would also be required.*" (Proposal for amendment of certain decrees, Finnish Maritime Administration, 12/00/2000, own translations)

The meaning has been that the fishing vessel safety training would supplement the possible gaps in knowledge. However, when fishing vessel safety training is just a short course and very similar to the STCW basic training (A-VI/1) as described in the next chapter, it cannot really fill the possible gaps in STCW training compared with the STCW-F training. Perhaps the intention has been to create more comprehensive additional training with proper fishing vessel specific parts but such a training has been left undone.

In the STCW-F, the substitution of fishing vessel service with merchant vessel service varies regarding the skippers and watchkeeping officers. For skippers, only half of the required seagoing service can be on merchant vessels according to the draft and current regulations of the STCW-F Convention. E.g. skippers in limited waters need one year of seagoing service on fishing vessels of not less than 12 metres in length and only six months of it can be on merchant vessels. (e.g. Draft Convention regulation II/3.2.2) For watchkeeping officers all fishing vessel service can be substituted by merchant vessel service if evidenced

by an approved record book. (e.g. Draft Convention regulation II/4.2.3, see also Chapter 4.14 and MSC/Circ.795)

In conclusion, the current national requirements are not in compliance with the STCW-F requirements. The deck officers should receive additional training for the STCW-F specific areas. The national fishing vessel safety training is not sufficient to fill the gaps in the training. The skippers should also have seagoing service on fishing vessels, not just on merchant vessels. However, the current fishing vessel officers could continue their professions by means of transitional provisions.

#### **4.8 Basic safety training for all fishing vessel personnel**

Act on Transport Services (320/2017), Chapter 11 on qualifications on seafarers is applicable to all fishing vessels with a length of 10 meters or more, however within the catch area I the size limit is 12 meters or more. (section 96, subsection 2) All persons serving on a fishing vessel where Chapter 11 is applicable shall have fishing vessel safety training. (section 108, subsection 2)

Traficom's regulation on competencies of ship's crews (TRAFICOM/204498/03.04.01.00/2020) paragraph 6 on safety training for persons serving on fishing vessels stipulates that the training shall be planned and given following the requirements on the STCW-F Convention Chapter III and the recommendations on the attachment 2 to the Convention, resolution 5. For the reasons of clarity, the safety training for persons serving on fishing vessels can be later called also as *STCW-F basic training*, when basic training (STCW A-VI/1) for merchant seafarers given according to the STCW 1978 Convention, as amended, will be called as *STCW basic training*.

The current STCW-F Convention allows administrations to derogate from the basic safety training requirement on small fishing vessels. Actually, the wording currently has a spirit that requiring basic safety training would be more an exception than a rule: "*The Administration shall determine whether and, if so to what extent, these provisions shall apply to personnel on small fishing vessels or personnel already employed on fishing vessels.*" (Chapter III regulation 1.2 of the STCW-F Convention) That regulation is struck out on the draft of the Convention but the Code contains a somewhat similar section:

*"The Administration may, in respect of fishing vessels of less than 24 metres in length and/or operating solely in its limited waters, if it considers that a fishing vessel's size and the length or*

*character of its voyage are such as to render the application of the full requirements of this section unreasonable or impracticable, exempt to that extent the fishing vessel personnel on such a fishing vessel or class of fishing vessel from some of the requirements, bearing in mind the safety of people on board, the fishing vessel and property and the protection of the marine environment."* (Draft Code, section A-III/1.5)

The proposed text would make it possible to exclude less than 10 or 12 meters fishing vessels as we currently do.

Similar to the STCW basic training, the STCW-F basic training would be needed to be refreshed every five years. (Draft Code, section A-III/1.2) This would tighten the requirements as there is currently no provision of refresher training in the Convention or in our national legislation.

The structure and format of requirements is subject to change. The training would be divided in four parts that all have a separate KUP-table, the same way as the STCW basic training. The content is very much similar to the STCW basic training but not identical, especially training in personal safety and social responsibilities includes many fishing vessel specific KUPs. (Draft Code, table A-III/1-1 and STCW table A-VI/1)

Training in personal survival techniques is added with a KUP of "*assistance to others to board a survival craft.*" (Draft Code, table A-III/1-1)

Training in fire prevention and firefighting has more detailed KUP regarding the spread of fire "*including but not limited to: .1 radiation .2 convection .3 conduction with emphasis on dangers associated with freezing equipment*" and also a new KUP of "*the effect of the use of the wrong agent.*" Also, the requirement to enter and pass a compartment filled with high-expansion foam without breathing apparatus has been removed. (Draft Code, table A-III/1-2) Entering to a high-expansion foam has been criticized to be harmful and likely will be removed from the STCW basic training as well if the comprehensive review of 1978 STCW Convention begins at the IMO.

Training in elementary first aid is identical to the STCW basic training. (Draft Code, table A-III/1-3 and STCW table A-VI/1-3)

The training in personal safety and social responsibilities has some KUPs modified to address fishing vessels and several fishing vessel specific KUPs that are:

- *"Basic knowledge of the responsibilities of fishing vessel personnel under the MARPOL Convention with regards to pollution response equipment"*
- *Recognition and measures to be taken to prevent pollution by abandoned, lost or otherwise discarded fishing gear and fish packing material*
- *Understanding of the legal requirements that control safety in the fishing industry*
- *Understanding of health and safety hazards*
- *Awareness of risks on board fishing vessel specifically during fishing operation*
- *Basic knowledge of fishing equipment on board fishing vessels and its safe use*
- *Understand what is a: .1 hazard .2 risk*
- *Basic knowledge of a risk assessment process and methods to reduce risk*
- *Basic knowledge of correct disposal of fishing gear and fish packing material"*

(Draft Code, table A-III/1-4)

Whether Finland ratifies the STCW-F Convention or not, it might be reasonable to follow the reviewed requirements of the STCW-F basic training, as we have done up to the present by referencing to the STCW-F requirements and recommendations on the Traficom's regulation on competencies of ship's crews. This could be done simply by amending the Traficom's regulation. The reviewed content of the STCW-F basic training seems to be more up to date and contains some new fishing vessel specific parts. Need for refresher trainings should be considered separately and this thesis is not giving any recommendations in one direction or another.

If Finland ratifies the Convention or otherwise wants to keep its fishing vessel basic safety training requirements in line with the future Convention requirements, it would be reasonable if training providers offered supplementary training for those already having the STCW basic training and who wish to transfer from merchant vessels to fishing vessels.

In any case the Traficom's Regulation on competencies of ship's crews (TRAFICOM/204498/03.04.01.00/2020) paragraph 6 needs to be amended consequently when the amendments to the Convention come into force, otherwise the references would point to an outdated chapter and resolution.

Unlike currently, the revised Convention would require that basic safety training is included in the Certificate of Competency, and if not, a separate Certificate of Proficiency shall be issued. (Draft Convention regulation III/1.2)

In addition, a safety familiarization training given on board would be introduced. (Draft Code section A-III/1.4)

Summing up, becoming a party to the Convention would mean; 1) the issuance of Certificates of Proficiency for basic training or alternatively, the inclusion of basic training into the Certificate of Competency, 2) the requirement of refresher training every five years, 3) amendments to the training content, 4) additional training requirements for merchant seafarers transferring to fishing vessels, 5) the approval of the training by Traficom as described in Chapter 4.14 and 6) amendments to the legislation to set the familiarization requirement for the ship owners and to update the Traficom's regulation.

#### **4.9 Training providers authorized to arrange safety training for fishing vessel personnel**

According to the Act on Vocational Education and Training (531/2017), section 22:

*"Providing vocational education and training needed to complete a qualification or one or more qualification units and education required for achieving vocational competence as referred to in this Act requires an authorisation granted by the Ministry of Education and Culture (authorisation to provide education)."*

The safety training for persons serving on fishing vessels is only included in the qualification requirements for further vocational qualification in fisheries in the unit number 200781 *"serving as a skipper of a fishing vessel"*. (OPH-846-2018) It is not included in any other qualification requirements for seafaring or fisheries, such as the vocational or further vocational qualifications in seafaring, or the vocational or specialized vocational qualifications in fishery. (Qualification requirements)

The unit of serving as a skipper and further safety training for fishing vessel personnel is a training covered by section 22 of the act quoted above. A training provider wishing to arrange safety training for fishing vessel personnel, needs an authorization from the ministry. Another option can be co-operation with an already authorized training provider which would supervise the training and take the overall responsibility of it.

However, Traficom's Regulation on competencies of ship's crews (TRAFICOM/204498/03.04.01.00/2020), paragraph 6 stipulates that safety training for fishing vessel personnel can be arranged by a training provider which is authorized to arrange vocational training in fisheries or by a training provider of maritime training authorized to arrange vocational training in seafaring. These conflict with the Act on Vocational Education and Training, as there safety training for fishing vessel personnel is not included in the qualification requirements for vocational qualifications in seafaring or fisheries but only in the further vocational qualification in fisheries.

According to the Act on Transport Services, section 108, subsection 4, Traficom has the right to issue regulations on safety training for fishing vessel personnel. In practice, this means issuing regulations to the content and arrangements of the training and does not extend the authorization further than given by the Ministry of Education and Culture by the virtue of the Act on Vocational Education and Training. Hence, Traficom's regulation on competencies of ship's crews should be amended accordingly.

Currently, there are nine training providers holding an authorization from the Ministry of Education and Culture to provide the further vocational qualification on fisheries. One of the authorized training providers is Livia vocational college in Parainen. The exact permit holder is the municipal education and training consortium Peimari, which is the governing organization of Livia. (Oiva database, 22 September 2021)

Livia is not regularly arranging safety training for fishermen but when they have done it, the training has been outsourced to Meriturva maritime training center. (personal communication with section manager Raappana, Meriturva and lecturer Forsman, Livia on 15 January 2021). This is done by the virtue of section 30 *the procurement of education and training* of the act (531/2017). Meriturva does not have an authorization from the ministry (Oiva database, 22 September 2021). Hence, Livia should bear the overall responsibility of the training, verify the completeness of the training and issue also training certificates.

Completed safety training for fishing vessel personnel leads to a course certificate, documentary evidence, which then gives certain rights to its holder. No separate Certificate of Proficiency is issued by the administration, at least not for the time being. The revised Convention would require that basic safety training is included in the Certificate of Competency or that a separate Certificate of Proficiency shall be issued (Draft Convention, regulation III/1.2).



It would seem there are grounds for Traficom to begin approving the safety training according to section 116 of the Act on Transport Services, as it leads to documentary evidence which is required by the virtue of that act. In addition, STCW-F Chapter III regulation 1.1 requires approval. The need for approval is also stated on the instructions on how to apply for the approval of training from Traficom addressed to Maritime Education and Training providers (Finnish Transport Safety Agency, 2018, paragraph 2.2). Currently, Traficom has not approved these trainings, nor have training providers applied for approval. Hence, the quality, detailed content or arrangements of the training are not known in Traficom.

The current national system where a merchant mariner can with a fishing vessel safety training work on fishing vessels is not in accordance with the STCW-F Convention as described in Chapter 4.7. Even if staying out of the Convention and keeping section 103 on the Act on Transport Services as it is, it might be reasonable to assess if the current system is appropriate. Now it seems that the training might not give the desired added value for the merchant mariners. The content of the training should be elaborated so that it would truly supplement those fishing vessel specific areas, which are not included in the STCW training. It should be also sufficient to take supplementary training only, not needing to repeat areas already covered by the STCW training.

It should be also studied how the supply of training should be arranged in the future. If already now Meriturva is one actual training provider of the training and the content is rather close to the merchant vessel basic training (STCW A-VI/1), should it be made possible for the same training providers that currently can offer STCW basic training, to also offer STCW-F basic training? This could promote interchangeability between merchant and fishing professions. This could be done by adding fishing vessel safety training to the vocational qualification in seafaring, and perhaps also in vocational qualification in fisheries.

#### **4.10 Basic sustainable fisheries training for all fishing vessel personnel**

Separate from the basic safety training, a new mandatory basic sustainable fisheries training for all fishing vessel personnel is proposed. The content of the training is still under development but it currently includes e.g. the following kind of KUPs: *"Basic knowledge of marine ecology and understanding of the complexity and diversity of the marine environment or Understanding the importance of healthy oceans for the fishing industry."* (Draft Code table A-III/2) These are already at least partly covered by common knowledge in countries

with a high level of basic education but of course training programs for fishermen and legislation should be amended accordingly if Finland joined the Convention. This in practice would mean a new training although it might be possible and practical to give it together with the basic training.

The current draft of the Code requires that *"Fishing vessel personnel qualified in accordance with paragraph 1 in basic sustainable fisheries training shall be required, every 5 years, to provide evidence of having maintained the required standard of competence, to undertake the tasks, duties and responsibilities listed in column 1 of table A-III/2."* (Draft Code section A-III/2.2) The similar wording e.g. in STCW basic training (STCW section A-VI/1.3) have been interpreted to mean a refresher course or a practical test. (508/2018 section 87)

#### **4.11 Radio certification requirements**

The requirements for radio certifications on fishing vessels are stipulated on section 20 subsections 7-9 of the Government Decree on the Manning of Ships and Certification of Seafarers (508/2018):

*"On those fishing vessels of less than 45 metres in length that are not covered by Council Directive 97/70/EC setting up a harmonised safety regime for fishing vessels of 24 metres in length and over, one person shall hold a ROC or SRC certificate if the vessel operates within sea area A1. If the vessel operates outside sea area A1, one person on board shall hold a GOC or LRC certificate."*

*On fishing vessels of 45 metres in length and over and on fishing vessels of less than 45 metres in length covered by the directive mentioned in subsection 7 above, one person shall hold a ROC certificate, if the vessel operates within sea area A1. If the vessel operates outside sea area A1, one person shall hold a GOC certificate."*

*On vessels engaged on international voyages, holders of ROC or GOC certificates shall also hold corresponding endorsements."*

The STCW-F Chapter II regulation 6 contains an explanatory note that *"Mandatory provisions relating to radio watchkeeping are set forth in the Radio Regulations and the 1993 Torremolinos Protocol."*

Radio Regulations are defined in Chapter I regulation 1.10 of the STCW-F Convention being *"the most recent International Telecommunication Convention which may be in force at any time."*

The directive 97/70/EC referenced in the decree above is implementing the so-called 1993 Torremolinos Protocol into the EU legislation.

Radio Operator certificates issued under the 1978 STCW Convention are also accepted for fishing vessel personnel: *"Any appropriate certificate issued under the provisions of the 1978 STCW Convention, for the holder to serve as a Chief Engineer Officer, an Engineer Officer or Radio Operator, shall be deemed to be corresponding certificate for the purposes of paragraph 1 with regard to fishing vessels."* (STCW-F Regulation 3.7) This regulation is at least currently remaining substantially the same also after the review of the Convention. (Draft Convention regulation I/3.7)

As a conclusion, our national radio certification system is already compatible with the STCW-F requirements.

#### **4.12 Medical requirements**

Personnel serving on Finnish fishing vessels shall have a medical certificate the same way than merchant mariners according to the Act on Medical Fitness Examinations of Seafarers (1171/2010). Only the *"vessels of 10 m in length or less, not used in general traffic for the carriage of passengers, for the carriage of cargo on a regular basis, or for towage"* (Section 2) are excluded from the application of the act.

There is currently no specific requirement of the medical certificate on the Convention but the regulation 3 states that certificates *"shall only be issued if the requirements for... ..medical fitness... ..are met in accordance with these regulations."* (STCW-F Regulation 3.1) More detailed medical requirements are to be introduced as part of the comprehensive review. (Draft Convention regulation I/12 and Code section I/12)

The draft of the revised Convention contains a new regulation I/12 on medical standards and corresponding A-I/12 sections on the Code. Those largely follow the structure of the medical requirements on the STCW 1978 Convention but are not identical. For example, it is proposed and agreed in principle by the HTW 7 sub-committee that with certain conditions a person already not less than 15 years old could be granted a medical certificate as also laid down in ILO Work in Fishing Convention, 2007 (No. 188). (HTW 7/16, 24, draft Convention and Code and STCW Regulation I/9 and section A-I/9)

The requirement of a medical certificate would be limited to persons holding a certificate: *"Every crew member holding a certificate issued under the provisions of the Convention, who is serving at sea, shall also hold a valid medical certificate issued in accordance with the provisions of this regulation and of section A-I/12 of the STCW-F Code."* (Draft Convention regulation I/12.3)

*"The Certificate means a valid document, by whatever name it may be known, issued or recognized in accordance with the provisions of the Convention, authorizing the holder to serve as stated in this document or as authorized by national regulations."* (STCW-F Article 2.3)

The draft Convention contains a proposal for a new definition as follows:

*"Certificate of proficiency means a certificate, other than a certificate as defined in article 2 of the Convention, stating that the relevant requirements of training, competencies or seagoing service in the Convention have been met."* (Draft Convention regulation I/1.23)

The corresponding group report states that the definition *"may be developed additionally to avoid any structural problems in the draft revised STCW-F Convention, which would be made by the current draft definition of "certificate of proficiency". Finally, the group agreed to keep it in square brackets for further consideration together with the definition of "certificate of competency" at HTW 8.*" (HTW 8/8, 3)

As it is proposed that a Certificate of Proficiency shall be issued for basic training as described in Chapter 4.8 and all fishing vessel personnel (some national exceptions may apply to the smallest boats) shall have basic training, it means that there would not be uncertified persons on board. Then according to the current definition of the certificate, all fishermen should also have a medical certificate, not just officers.

However, if a new definition of Certificate of Proficiency is being introduced as proposed, then the situation becomes unclear. Is a person who is not having other certificates than a Certificate of Proficiency a *"crew member holding a certificate"* as currently drafted in the regulation I/12.3? If not, then a medical certificate would be required only for officers. The proposed definition of Certificate of Proficiency seems to be rather problematic and needs more elaboration as noted in the correspondence group report.

Our national legislation requires a medical certificate for all personnel, only certain vessels of 10 meters or less in length are outside the scope of the act. (1171/2010 section 2)

There were also discussions whether the validity of medical certificates should be more flexible and expiring certificates valid until the end of that voyage. That would be relatively similar to abovementioned ILO Work in Fishing Convention. (HTW 7/8, 8-9) This did not go forward on the HTW 7 and the current formulation is in line with the STCW Convention where the medical certificate is valid until the next port of call where's an approved doctor available, but not more than three months after the original expiry of the certificate. (HTW 7/16, 24) If the validity was until the end of that voyage, it could leave space for unhealthy gimmickry as the end of a voyage can be interpreted many ways.

According to the current draft of the STCW-F Convention, regulation I/3.8 *"Any medical examination issued in accordance with the provisions of regulation I/9 of the 1978 STCW Convention shall be accepted as valid for the personnel of fishing vessels."* (Draft Convention) Hence, Finland would fulfil the future STCW-F medical requirements already by now as our national legislation is deemed to be in line with the STCW 1978 Convention.

However, the draft regulation I/12 reads *"Each Party shall establish standards of medical fitness for fishing vessel personnel and procedures for the issue of a medical certificate in accordance with the provisions of this regulation and of section A-I/12 of the STCW-F Code"*. (Draft Convention) This is almost direct copy from the regulation I/9 of the 1978 STCW Convention. If regulation I/3.8 does not override regulation I/12, meaning that a party solely could use STCW 1978 medical standards instead of STCW-F medical standards, then this would create administrative burden as double systems should be created and maintained. It is likely that the text can be interpreted so that there is no need for STCW-F medical standards if STCW 1978 medical standards are applied also to fishing vessels. Reasoning on the Spain's original proposal (HTW 7/8/5) where the addition to the regulation I/3 is based on, and how HTW 7 sub-committee wrote on their report that sub-committee *"recognized the benefits of accepting a medical certificate issued under the 1978 STCW Convention as valid for service on board fishing vessels, the Sub-Committee referred this proposal to the Working Group with a view to finalization."* (HTW 7/16, 22), are both supporting that interpretation. Still, this needs to be studied more carefully before the Convention text is finalized or at least before considering the ratification.

A joint IMO/ILO working group will be established to develop guidelines on the medical examination on fishing vessel personnel. The working group have already been postponed because the Convention and the new Code were not ready as originally planned and before working on guidelines, the underlying regulations needs to be finalized. As shown on the table of the work plan in Chapter 2.4, the working group should work during the years 2022-2023. The guidelines will likely give more detailed picture of the possible differences in medical examinations on fishing vessel personnel and merchant mariners.

In conclusion, the current national medical certification system based on the STCW should be acceptable even if becoming a party to the STCW-F. It should also be possible to exclude the smallest vessels from the medical certification requirement as we do today, because the requirement is limited to persons holding a certificate and it should be possible to exclude the smallest fishing vessels from the basic training requirement as described in Chapter 4.8. However, the definitions of certificates are not decided yet at the IMO and it is advisable to pay attention to the outcome of the wordings.

#### **4.13 Recognition of foreign certificates**

Foreign national fishing vessel personnel certificates can be recognized and hence accepted on Finnish fishing vessels. The system is based on the common recognizing procedure laid down on the directive 2005/36/EC on the recognition of professional qualifications, which is implemented in Finland by the Act on the Recognition of Professional Qualifications (1384/2015).

The substantial law for the certification of fishing vessel personnel however is the Act on Transport Services (320/2017) but its sections 96 and 112 only contains references back to the Act on the Recognition of Professional Qualifications. The possibility to recognize foreign certificates is limited to certificates of competency issued by a competent authority of the European Economic Area (EEA) states only. (320/2017, section 112) A holder of a certificate issued by a third country hence cannot work on a Finnish fishing vessel in a position covered by section 103 (Certification requirements for fishing vessel personnel) of the Act on Transport Services.

The recognition in practice means that the foreign training and seagoing service requirements are compared with our national requirements, and if there is no substantial differences, the certificate is recognized by an administrative decision.

This possibility to recognize the foreign Certificates of Competency came to the legislation not until July 2018 when the phase II amendments to the Act on Transport Services entered into force. (Legislative proposal for amendments to Act on Transport Services HE 145/2017 and Act 301/2018). Since then there have been only seven applications of recognition of EEA-certificates for fishing vessels where 3 have resulted in a positive decision and 4 have resulted in a negative decision or cancellation of application due to insufficient information provided by the applicant. (Traficom Transport register, 4<sup>th</sup> September 2021)

Within the EU level, the general recognition procedure based on the directive is criticized by stakeholder organizations as complicated and bureaucratic, hindering free movement, affecting negatively on safety and making it difficult to comply with the regulations, which may lead to illegal labor. (van der Zwan 2018, 60)

Based on the experiences when handling the applications of recognition, it certainly is complicated for applicants. Even the very basic requests of additional information e.g. missing copies of certificates remain unanswered leading to negative decisions or cancellations. It is rather likely that at least some of those applicants go to work on board despite the missing documentation if they consider the application process too burdensome.

From the administration point of view, the comparison of education and training is time-consuming. It can also be difficult or impossible to find syllabi for a foreign training. Those are usually in national languages and although it would be possible to request translations by section 12 of the Act on the Recognition of Professional Qualifications (1384/2015), that have not been done so far in order to ease the process for the applicant. Also, in most cases the syllabus has been requested directly from the issuing administration or training provider.

There have not been any applications of recognition of STCW-F certificates (Traficom transport register, 28 November 2021) but those would be rather straightforward to handle, as we already know that those are corresponding our national requirements or are even higher.

If Finland ratified the Convention, it will not be any longer possible to recognize foreign national certificates as "*Certificates issued by or under the authority of a non-Party shall not be recognized.*" (STCW-F Chapter I regulation 7.2) This is rather remarkable as there are many Estonians working onboard Finnish fishing vessels as described in Chapter 5 and Estonia is not planning to ratify the Convention as discussed in Chapter 2.1.

One alternative for recognition could be unilateral or bilateral agreements with the states providing workforce for Finnish fishing vessels, meaning at least Estonia and Sweden. That could make it possible to recognize their corresponding national certificates without every single fisherman having a need to apply for recognition. However, this is against the direction where the EU wishes to steer the qualification system as it would not promote common rules in the EU and international level.

#### 4.14 Approval of training programs

There is no requirement of the approval of training programs in the current Convention. Candidates for certification shall just *"have passed an appropriate examination or examinations for the assessment of competency to the satisfaction of the Party."* (e.g STCW-F Chapter II regulation 3.3)

Nor includes the proposed amendments to the Convention any general requirement that all training should be approved the same way as it is in the 1978 STCW Convention. The approval is only required if seagoing service requirements are decreased by an onboard training program. The approval process is not regulated in more detail in the draft Convention, e.g. there are no corresponding provisions for the regulation I/6 of the 1978 STCW Convention.

E.g., the draft regulation II/2 regarding officers in unlimited waters reads as follows:

*".2 bis have approved seagoing service of not less than 12 months on fishing vessels or fishing training vessels of not less than 12 metres in length as part of an approved training programme which includes onboard training that meets the requirements of section A-II/2 of the STCW-F Code and is documented in an approved training record book; or*

*.3 have approved seagoing service of not less than 2 years in the deck department on fishing vessels of not less than 12 metres in length. However, the Administration may allow the substitution of the seagoing service by a period of special training not exceeding 1 year, provided that the period of the special training programme shall be at least equivalent in value to the period of the required seagoing service it substitutes or by a period of approved seagoing service evidenced by an approved record book covered by the 1978 STCW Convention, as amended."* (Draft Convention, regulation II/2)

The draft regulation .2 bis is for situations where the training program contains onboard training. Both the training program and the training record book shall be approved. Seagoing



service cannot be accepted on any other vessels than from fishing vessels or fishing training vessels. This option could be applicable e.g. for persons entering the branch and starting their education from scratch.

The draft regulation .3 is more meant for people already having working experience either from fishing or merchant vessels. The wording remains the same as originally, only words *as amended* have been added. The wording is somewhat unclear but the MSC has given a clarification already in 1997 how it should be interpreted. According to the circular, "*a period of up to two years seagoing service on fishing vessels to be substituted by the same period of approved seagoing service evidenced by an approved record book covered by the 1978 STCW Convention.*" (MSC/Circ.795)

In addition, tests or training courses for the revalidation of certificates shall be approved. (Draft Code, section A-II/7.2)

Basic safety training shall be approved by the administration already now. (STCW-F Chapter III, regulation 1.1) The name would be shortened to basic training. (Draft Convention, Chapter III, regulation III/1)

However, according to the regulation 6.1 of the Convention and the corresponding regulation I/6.1 of the draft, "*Each Party undertakes to establish and maintain a means of ensuring that programmes incorporating such instruction and practical training as is necessary to achieve the competency standards are regularly monitored to ensure their effectiveness.*"

The interpretation here is that approval is not needed unless specifically stated but still the administration shall monitor the training providers. Because the wording is broad, the administration may arrange the monitoring in different ways. The process might be lighter than in the STCW but some sort of approval and administrative decisions would be still in practice needed.

#### **4.15 Transitional provisions**

Chapter I regulation 8 of the Convention regarding transitional provisions would remain the same. (Draft Convention regulation I/8) The regulation is written with a tone inviting ratifications to the Convention as it gives wide flexibility to the parties to accept their previous national certificates also after ratification.

Previous national certification "*shall be recognized as valid for service after entry into force of the Convention for that Party.*" A party may continue to issue certificates "*in accordance with its previous practices for a period not exceeding five years.*" (Chapter I, regulation 8.1) However, those can be issued only to current certificate holders, who are renewing their certificates, not for fishermen entering into the branch and applying for their first certificate. (STCW-F Chapter I, regulation 8.2) There is also a possibility within a transitional period limited to two years to issue STCW-F certificate for persons who are not having any previous certification, but have sufficient sea-going service. (STCW-F Chapter I, regulation 8.3) This would not be that relevant to Finland as we have a national certification system in place but could give a needed leeway for the administration in some specific cases.

The current draft regulation II/7.2 of the STCW-F Code on revalidation of certificates reads as follows:

*"Each Party shall compare the standards of competence which it required of candidates for certificates issued before [DD/MM/YYYY] with those specified for the appropriate certificate in part A of the STCW-F Code, and shall determine the need for requiring the holders of such certificates to undergo appropriate refresher and updating training or assessment."* (Draft Convention II/7.2) The date is still left empty but based on the discussions on the correspondence group, it will be 5 years after the entry into force, the same way it was for the 1978 STCW Convention's Manila amendments. (Correspondence group discussions, summer 2021)

The relation between Chapter I regulation 8 (which would be I/8 after the amendment) and the proposed new regulation II/7.2 is not completely clear. Should also new parties to the Convention compare their previous standards for certification and require some refresher or updating training or does it apply only to existing parties? In other words, does regulation 8 overrule regulation II/7.2?

The interpretation here is, that a party can continue to issue and renew old certificates five years after the Convention entered into force for that party and also after that, the future renewals of those certificates can be made. As a result, the current certificate holders do not need to do any supplementary training although there could be some gaps in their education and training, and they can continue their profession to the end of their careers. If not interpreted this way, Chapter I regulation 8 would be in contradiction to regulation II/7.2

and should be amended as well which is not going to happen according to the current draft of the text. (Draft Convention)

Another interesting question is that can the transitional provision to be extended to our current chief engineer certificate requirements where the needed Certificate of Competency is a 1978 STCW Convention Watchkeeping engineer's (III/1) certificate? Could those currently holding a III/1-ticket continue to work on fishing vessel chief engineers? Should it be restricted to persons who have actually worked as chief engineers on fishing vessels? Does that similarly apply to deck officers working on fishing vessels with STCW certificates?

If the transitional provision is meant to allow current fishermen to continue their professions even if the former national requirements have been lower than those set in the STCW-F, it should be extended also to the STCW certificates. There are most likely national requirements in place that are much lower than those laid down in the STCW for a watchkeeping engineer. If those lower national requirements can be accepted, there is no reason to exclude STCW certificates either. Similarly, this would apply to deck officers currently working on fishing vessels.

However, according to the transitional provision, *"during this transitional period such certificates shall be issued only to persons who had commenced their sea service before entry into force of the Convention for that Party within the specific ship department to which those certificates relate. The Party shall ensure that all other candidates for certification shall be examined and certificated in accordance with the Convention."*

(STCW-F Chapter I regulation 8.2 and draft Convention regulation I/8.2) The national transitional provision should then be restricted to those who have been serving on fishing vessels before the Convention entered into force in Finland. Transitional arrangements of a similar kind for STCW certificates can be found on the Regulation on competencies of ship's crew (TRAFICOM/204498/03.04.01.00/2020) paragraph 9.

## 5 The size of the Finnish fishing vessel fleet and fishing vessel personnel

### 5.1 Vessels of length 24 m or more and 750 kW or more

There are two different registers where seagoing fishing vessels may or shall be registered, depending on of their size and use. The transport register, maintained by Traficom based on the Register of Ships Act (512/1993) applies to all vessels engaged in merchant shipping and it is obligatory to register all vessels of 15 meters in length or more (Section 1) and voluntarily vessels of not less than 10 meters can be registered. (Section 2)

Based on legislative proposal for Register of Ships Act, there is no definition on merchant shipping but it is commonly understood meaning all activities done with a vessel with intent to earn or against a compensation. Typical activities include transport of cargo, passengers and additionally e.g. towage, icebreaking, fishing and search- and rescue operations. (Legislative proposal for Register of Ships Act HE 24/1993)

In addition to Traficom's transport register, there is a register of fishing vessels maintained by Southwest Finland's Centre for Economic Development, Transport and the Environment (CEDTE), based on the Act on the Registration of Fishery and Aquaculture Vessels at Sea (690/2010). All fishing vessels used for merchant fishing shall be registered. (Section 7). The vessels are categorized into three groups, "*1) fishing vessels of a total length of less than 12 m (coastal vessels); (2) fishing vessels of a total length of 12 m or more (open sea vessels); or 3) aquaculture vessels.*" (Section 6, own translation)

Furthermore, commercial fishing vessels used in inland waters shall be registered according to the Act on National Implementation of the Common Fisheries Policy of the European Union (1048/2016). The register keeper is also the CEDTE. As the STCW-F is applicable only to seagoing fishing vessels (STCW-F Article III), this register is not relevant to the study.

If a vessel meets the registration requirements of the Register of Ships Act, it shall be registered as a vessel in the register even if it is registered also in the register of fishing and aquaculture vessels operating at sea or in the register of inland fishing vessels. That is, these vessels are then on both, the fishing vessel and the transport register.

There were 26 fishing vessels over 24 meters in length in the Finnish Transport register in August 2021. Out of 26 vessels over 24 meters in length, 11 were also 750 kW or more. However, when comparing the Traficom's inspection database, it is evident that only 11-13 vessels out of 26 are still operative and used for fishing. 10 of them are 750 kW or more. (Traficom Transport register, information retrieved 15 September 2021) Fishing vessels shall be inspected in accordance with the Act on the Technical Safety and Safe Operation of Ships (1686/2009) and Traficom's regulations given by the virtue of the Act. According to the Regulation on Survey of Ships, class III fishing vessels shall be inspected at least every second year. (TRAFICOM/265153/03.04.01.00/2021, section 4.6.1) Hence, if there are not recent inspections done to a vessel, most likely it is not used for fishing any longer, at least it should not be used. Vessels were interpreted as being active for this study if inspection was valid or no more than two years overdue. 11 vessels had valid inspections and three vessels had inspections overdue no more than two years. The inspections for the rest of the vessels were done already years or even decades ago. (Traficom Transport register, 15 September 2021).

There were 19 vessels in the fishing vessel register maintained by the CEDTE on 14 September 2021. Five of those do have different length than in the Traficom's Transport register because the CEDTE is using length overall of vessels (e-mail correspondence with the fishery inspector of Varsinais-Suomi Centre for economic development, transport and environment, Fisheries service, 13-15 September 2021) and Traficom length as defined by the legislation, where ship's length means:

*"96% of the total length of the ship on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this is measured shall be parallel to the design waterline. In ships less than 12 m in length, the length equals the ship's overall length."* (e.g. 1686/2009, section 2, subsection 1, paragraph 27).

This definition above is consistent with the definition of the STCW-F Convention (Regulation 1.16), just the use of length overall for vessel's less than 12 meters in length is a national provision.

Hence, there are 14 vessels over 24 meters in length as defined by the Convention in the CEDTE's register and 13 vessels in the Traficom's register. The vessels are the same but one vessel is missing from the Traficom's register because the owner has not registered it as required by the Register of Ship's Act. (information received from Traficom's Transport

register 15 September 2021) The conclusion is that currently 12-14 vessels would come under the obligations to the deck officer qualifications of the Convention and requirements in engine department qualifications would be applicable to 11 vessels.

It is not possible to get historical information from the Traficom's Transport register but according to the fishing vessel working group report of year 1995, at that time there were approximately 30 fishing vessels over 24 meters in length. (Ministry of Transport, 1995, 12) Additionally, an extract of fishing vessel register dated on 14 April 1994 counts 39 fishing vessels over 24 meters in length. (Finnish Maritime Administration, 1994). It is not known whether there were actually passive vessels in the register same way as it is today, but it is possible to conclude that the number of large fishing vessels in Finland has decreased over the decades.

## **5.2 Smaller vessels where basic training could be required**

### **Traficom's Transport register**

There were 70 registered fishing vessels between 15 and 24 meters (class II) in length and 46 fishing vessels less than 15 meters in length (class I) in the Traficom's Transport register. (Traficom transport register, August 2021) The number of class I vessels is very much higher in reality because, as mentioned above, there is no obligation to register vessels less than 15 meters and only vessels 10 meters or more can be registered on the voluntarily basis according to the Register of Ships Act. (512/1993, sections 1 and 2) There are no registered class I or II vessels with propulsion power 750 kW or more (Traficom transport register, August 2021) and it is not likely that there would be unregistered class I vessels with 750 kW or more either.

### **The fishing vessel register of Southwest Finland's Centre for Economic Development, Transport and the Environment**

There were 3147 fishing vessels of a total length of less than 12 m and 57 of 12 meters or more in the fishing vessel register maintained by the CEDTE in September 2021. The number of aquaculture vessels was 27. (e-mail correspondence with the fishery inspector of Varsinais-Suomi Centre for economic development, transport and environment, Fisheries service, 13-15 September 2021) Aquaculture vessels are cargo vessels as per definitions on the legislation. (320/2017, section 97) The registered information does not tell how many of those fishing vessels are used in seagoing fishing and hence would be under the general basic

safety training requirements of the Convention. Already now, the national requirement of safety training for fishing vessel personnel is limited and applicable to all fishing vessels of length at least of 10 meters and within the trade area I, to fishing vessels of length at least of 12 meters. (320/2017, section 96 subsection 2 and section 108 subsection 2) This should be possible even under the reviewed Convention as described in Chapter 4.8.

Summing up, based on the data directly available in the registers, it is not possible to determine the exact number of vessels where basic training could be required. More detailed information could mean manual labor or data drives that can not be requested for the purpose of this study. Some information could still not be available, e.g. whether a vessel is used for seagoing fishing or not.

For comparison, also at the EU level 90 % of the fishing vessel fleet are less than 24 meters in length and would be outside of the main provisions of the Convention. (European Parliament, 2018, 16)

### **5.3 The size of Finnish fishing vessel personnel and foreign workforce on Finnish vessels**

As illustrated on the table 2 below, there were only 36 persons holding Skipper's certificate (category A) for fishing vessels and ten persons holding Skipper's certificate (category B) in November 2021. These were also quite elderly persons, especially many of the Skipper A certificate holders are likely to retire within the upcoming few years. It is not possible to retrieve historical information from the register, however the number of valid certificates were last time retrieved in June 2018 and a slight increase of valid certificates can be seen. Because these two data retrievals are the only ones available, it is not possible to make any further conclusions based on the numbers.

Lower fishing vessel Certificates of Competency, that is to say boatmasters category A or B -certificates, are not listed on the table, as these only entitle to class I and II fishing vessels outside the Convention due to their small size.

Table 2. Valid Certificates of Competency of Skipper category A and B.

	Skipper A		Skipper B	
	November 2021	June 2018	November 2021	June 2018
<b>Age of holder</b>				
60+	8	8	2	1
50-60	9	9	2	0
40-50	7	8	1	1
30-40	8	5	2	3
less than 30	4	1	3	2
<b>Total</b>	<b>36</b>	<b>31</b>	<b>10</b>	<b>7</b>

(Traficom Transport register, information retrieved 10 November 2021 and 1 June 2018)

It is not known if these certificate holders really work on fishing vessels or not, the number of actually active fishermen can be lower than currently valid certificates. Both certificates, skipper A and B are valid five years at a time and can be revalidated by the same basis as the certificates of competency for merchant vessels. This means most commonly by one year of seagoing service within the preceding five years but also other options for revalidation exists. (508/2018, sections 79 and 91)

It appears to be a European wide challenge to get younger generations to fishing professions. A study requested by the Committee on Fisheries of the European Parliament collected e.g. following arguments why young people do not see fishing as inviting occupation: difficult working conditions, poor salaries, better terms of employment on merchant shipping, lack of career paths and also polluted waters and overfishing making future prospects low. (European Parliament, 2018, 49)

Fishing vessels of length 24 meters or more usually have a Minimum Safe Manning Document requiring a crew of at least four persons: master, chief mate, chief engineer and a deck hand. (Traficom transport register, 28 November 2021)

If the number of active fishing vessels is 14, and they have a crew of four persons, then there would be totally 56 persons working on larger Finnish fishing vessels. If the vessels had two crews (one working, one on vacation), then the number would be 112. Due to short fishing season as described later in this chapter, it is not likely that all vessels would have double crews. On the other hand, there are certainly also persons, especially uncertified deck hands, working on fishing vessels only occasionally thus increasing the figure. A reasonable estimate could be that there are some 100-150 persons working on the Finnish fishing vessels of 24 meters or more in length.



The certification requirements for Finnish fishing vessel deck and engineer officers are stipulated on the Act on Transport Services Section 102 and are described in detail on Chapter 3.2.

Seagoing service on fishing vessels less than 24 meters in length is not recorded to the transport registry. (1687/2009 section 26 e, paragraph 6) For fishing vessels over 24 meters there is an obligation to report the seagoing service of their crew. (section 26 c) Despite the obligation, shipowners of fishing vessels have not comprehensively reported the seagoing service (Traficom Transport register) making it difficult to study e.g. the nationalities of personnel working on Finnish fishing vessels, if they have applied for recognition for their foreign certificates etc. When studying how the ratification would affect on the freedom of movement for workers, it would be useful to know if the current Finnish fishing vessels are manned with personnel holding the Finnish certificates of competency or not. Unfortunately, comprehensive information regarding this matter is not available due to above-mentioned reasons.

None of the 14 active vessels have reported seagoing service as obliged by law. Seven vessels have never reported seagoing service. Also, the reports from the rest of the vessels are very incomplete, either from years back or if there are more recent reports, those are not including all the crew, just one or two crew members. In all cases, there are long gaps in reports. (Traficom Transport register, 11 September 2021) Therefore it is not possible to study what nationalities there are on board Finnish fishing vessels or if they are having proper qualifications for their capacities.

It should be considered what actions should be taken regarding the current compliance to follow the reporting policy. Either proper reports should be demanded or alternatively it could be examined if there are true grounds for the obligation to report at all. At least the current situation does not serve its purpose.

An investigative journalism TV-program MOT of the Finnish Broadcasting Company YLE has investigated the backgrounds of Finnish fishing vessel owners. When they did the first review in 2011, almost half of the largest vessels were owned by Estonian or Swedish proprietors through Finnish companies. Since then, the share of Finnish owners has decreased further. Currently, 2/3 of the larger fishing vessels are owned by Estonian or Swedish proprietors according to an interviewed official of the Ministry of Agriculture and Forestry of Finland. Both of the Finnish fishermen interviewed in the program consider the

future of Finnish fisheries to be negative, meaning that vessels would go to foreign hands in increasing numbers. The interviewed Estonian chief executive officer of company Länsi-Rannikon Kala Oy tells that their two trawlers are manned with Estonian and Latvian crew members. (Näin myytiin Suomen kalavedet, YLE MOT)

According to the information gathered by the journalist of YLE MOT in March 2020, there were 15 trawlers of 200 gross ton (GT) or more in the Finnish register of fishing vessels and out of those 9 were owned by Estonians. (Suopanki, K. 2 March 2020) There were 16 fishing vessels larger than 200 GT in the Traficom's Transport register in August 2021.

A person who has completed safety training for fishing vessel personnel and is holding an STCW deck officer's Certificate of Competency, can work as an officer or master on Finnish fishing vessels as stipulated on the Act on Transport Services (320/2017, section 103, subsection 7) as described in Chapter 4.7. This means that either one has to have a fishing vessel specific national Certificate of Competency or then STCW certificate added with the safety training. Traficom does not know where a person applying for an Endorsement of Recognition of a STCW certificate will find employment. Despite that, it is likely that Finnish fishing vessels are, at least to some extent, manned with personnel not holding proper qualifications, in practice mainly meaning lacking the recognition of foreign certificates in accordance with Section 112 of Act on Transport Services. Control is limited as fishing vessels are not covered by the Port State Control system which covers only merchant ships (Paris MoU). Qualifications of fishing vessel personnel on Finnish fishing vessels are controlled mainly only as part of the surveys done by the flag administration.

The EU allocates Member States' fishing quotas as it has the exclusive competence in the conservation of marine biological resources. (Article 3, paragraph 1 (d), of the Treaty on the Functioning of the European Union) Under the Finnish system, these are further distributed on a per ship basis according to the legislation that changed in year 2017. The quota per ship is based on previous catch history. The fishing company interviewed on the documentary told that 10% of the quota is fished per week meaning that seven months of the year the ship is inactive. (Näin myytiin Suomen kalavedet, YLE MOT) It is likely that the situation is somewhat similar on other fishing vessels as well. This is good to remember when considering the amount of seagoing service required for the Certificates of Competencies, it may take long time to gather all required service. It can be even problematic to gather enough service for the revalidation of certificates. At least some fishing vessel owners in contact with Traficom have told of the difficulty of finding qualified staff to their vessels. Between

1 January 2017 and 11 September 2021 there were in total seven dispensations granted to fishing vessel officers; four to deck officers and three to engineers. (Traficom transport register)

## **6 Accident statistics of Finnish fishing vessels**

The incident and accident statistics of Traficom and the accident investigation reports published by the national Safety Investigation Authority are being researched below to determine the frequency of incidents and accidents onboard Finnish fishing vessels. The causes of these occurrences are further researched for causal connections to lack of crew training and competence to determine if changes in our training requirements would be needed.

The Finnish Maritime Act stipulates that the master or the shipowner shall report to Transport and Communications Agency about accidents and incidents occurred during the operation of the vessel. (674/1994, Chapter 18, section 15) The current obligation to report entered into force by amendment to the Maritime Act on 1 September 2017 but already the original Maritime Act from 1994 contained a somewhat similar obligation what comes to accidents. Incident reporting came to the law by the abovementioned amendment in 2017. (Legislative proposal for amendments to Maritime Act HE 23/2017)

For the purpose of the thesis, the statistics were received from Traficom's official responsible for collecting and handling the reports. These have been collected into the table of attachment 1 - *Reported accidents with Finnish fishing vessels involved*. As can be seen on the table, there have been many severe accidents where vessels have sunk or burned. Unfortunately, fatalities have not been avoided either.

Fourteen cases involving fishing vessels had been reported to Traficom between the years of 2010 and 2020. All of those can be classed as accidents, not just incidents. It is worth noting the obligation to report incidents as well had been in force for only about two years of the period considered. Six of the accidents have happened to vessels over 24 meters in length.

In addition, data from the years 1997 to 2008 was received for this study with a disclaimer that the reliability was not as good as for the data of 2010 to 2020. The structure of this older data was different than newer data. Between 1997 to 2008 there were 20 reported accidents which eight had happened to vessels of 24 meters or more in length.

Thinking about the small size of the Finnish fishing vessel fleet, the number of reported accidents is surprisingly high. It also underlines the fact that fishing is a dangerous occupation.

Although obliged by law, it is likely that especially incidents remain unreported. If some sort of an accident has happened to a Finnish fishing vessel almost on a yearly basis, there should be much more near misses (incidents) when considering different models of the so-called accident triangles originally introduced by Heinrich in 1931. (Heinrich Accident Triangle)

The special adviser of Traficom collecting the reports and producing statistics believes that accidents that are more serious are quite comprehensively reported nowadays because insurance companies tend to demand that the report is made. Minor accidents which can be solved without outsiders or where insurance companies are not involved can remain unreported. (personal communication with special adviser Pasanen, Traficom, 20 September 2021) When looking at how badly fishing vessel owners report sea-going service, which is also obliged by law for larger fishing vessels as described in Chapter 5.3, the presumption of unreported incidents is probably correct. In addition, it came forward from the investigation reports that fishermen are often prone to try to solve problems themselves, e.g. towing a grounded fishing vessel off the ground first itself for several hours before making a distress call. (Safety Investigation Authority, Finland 2011)

It shall be remembered that the cause listed on the table for cases from years between 2010 and 2020 is the report submitter's own assessment of the cause. For this thesis the actual incident reports sent to Traficom were not studied but the statistics and summary produced by Traficom based on the reports was studied. Even based on the summary, it can be reasonably questioned whether the report submitter's understanding of the cause has been correct in many of the cases. For instance, if the reported cause is *darkness* the true cause could be lack of competence, fatigue or negligent navigation.

Safety Investigation Authority, Finland has investigated 15 accidents between 1997 and 2021 where a Finnish fishing vessel has been involved. Of all but one, they have published an investigation report. (Safety Investigation Authority, Finland) The one left unpublished was not seen to have important aspects in terms of improving public safety. (Safety Investigation Authority, Finland 2000b) None of the investigations traced lack of training as a direct cause of the accident but on many occasions, crew's knowledge of vessel stability could have been better according to the reports. The common denominator for the accidents

is hoisting the fishing gear or catch shifting and the loss of stability as a result. (Safety Investigation Authority, Finland 1999, 2000a, 2004a, 2015). These cases are briefly reviewed below. Older cases of these have happened when the previous certification and training system was still in place but there are accidents also from the era of current training requirements. However, it is not possible to establish if the actual persons on board of those casualty vessels had completed trainings of old or current type as they may have renewed their old certificates based on the transitional provisions in place back then. The decree on fishing vessels of the year 2000 contained a transitional provision where those, who had worked as an officer of a fishing vessel for at least three years during the preceding seven years before the decree entered into force, could change their certificates to new ones without any additional training. (65/2000 section 68, subsection 6)

### **The sinking of trawler Lea**

Trawler Lea sank 12<sup>th</sup> of April 1999 taking two fishermen with her. The investigation revealed that the accident had happened when hoisting the catch. The vessel lost its stability and sank rapidly. The investigation report states that:

*"Fishermen often lack theoretical training on issues of ship structure and stability. Professionalism is acquired while doing practical work. The profession often passes from father to son. Fishermen learned to know the behavior of their vessels under different weather and load conditions through practical experiences. The fishermen who died in the LEA accident were experienced in the use of this vessel; however, the lessons learned from "near miss" situations do not guarantee an understanding about the stability criteria and all the different weather and load conditions cannot be predicted. The dangerousness of the maintained situation has not been known to fishermen or the dangerousness of such a situation has been understated."* (Safety Investigation Authority, Finland 1999. Own translation)

Lea was 16.7 meters in length and hence outside the main scope of the Convention. Also, training and certification requirements were different at that time as the current requirements entered into force only in 15 February 2000 as described in Chapter 3.4. It is not known to what extent stability matters were included in the old training but nowadays for a vessel of Lea's size, meaning class II fishing vessel, the master shall hold a Boatmaster's category A certificate. (320/2017, section 103 subsection 2) In order to get that certificate the applicant shall have either training of a fishing vessel skipper or skipper in domestic service. (508/2018, section 30, subsection 1, paragraph 2) These trainings include also stability matters so the gap of knowledge should be overlapped by now, at least in theory.

(Qualification requirements for further vocational qualification on fisheries and for vocational qualification in seafaring) Only the lowest of our national certificates, Boatmaster's category B -certificate does not include stability matters. (508/2018 section 29)

### **The Sinking of trawler Kingston**

Investigation to the disappearance of four fishermen and the trawler Kingston in the Sea of Bothnia on 24<sup>th</sup> to 25<sup>th</sup> of February 2000 also revealed that the sinking had happened when hoisting the catch. The master had long experience in fishing and as being master but the other fishermen were relatively inexperienced. The vessel was unfamiliar to all of them, including the master. The crew did not have prerequisites to assess risks and tackle grievances. (Safety Investigation Authority, Finland 2000a)

### **The listing of trawler Nordsjö**

Nordsjö experienced a list of 20-30 degrees in the Northern Baltic Sea on 21 January 2004. The cause of the incident was overload and tendency of a watery cargo to shift. When hoisting the catch at the end of the fishing operations, the cargo started to shift over the longitudinal bulkheads. (Safety Investigation Authority, Finland 2004a)

### **The sinking of trawler Seagull**

The vessel listed when the crew were hoisting the fishing gear in the Baltic Sea in 27 May 2004. According to the investigation, the cause was that the cargo of fish had become gruel-like matter and hence creating a large free-surface moment weakening the vessel's stability. The hoisting of the fishing gear listed the vessel causing the cargo to shift over the longitudinal bulkheads. The investigation board gave a recommendation that the stability data of fishing vessels should be developed more understandable for fishermen. (Safety Investigation Authority, Finland 2004c)

### **The capsizing and sinking of trawler Bärbel**

On the investigation to the capsizing and sinking of trawler Bärbel on 19 January 2015 the cause of the accident was determined to be the shifting of watery cargo of fish. The shifting of cargo was possible when the level of cargo reached close to the edges of the bulkheads. Alterations made to the vessel during the years had weakened the vessel's stability and it was lacking a sufficient stability reserve. The knowledge of fishermen may not be enough for determining the vessel's stability. (Safety Investigation Authority, Finland 2015) This

accident happened when the current certification and training requirements had been already about 15 years in place meaning that the actual knowledge of stability matters might not be as high as expected.

It is not possible to draw solid conclusions what are the causes for the large number of accidents on a rather small fishing vessel fleet. One reason for accidents could be poor general safety culture in fishing industry, where the low level of control e.g. the lack of similar Port State Control regime as for merchant vessels at least does not help the situation. Anyway, these should be scrutinized more carefully than it is possible to do as part of this thesis; it could be a subject to a separate study.

When training for fishing vessels over 24 meters in limited waters is already in line with the current STCW-F requirements as studied earlier, the large number of accidents should not be caused by our national training and qualification system. However, as described in Chapter 4.5.1, the proposed new training requirements for the limited waters skipper would add "*knowledge of internationally recognized stability criteria and conditions*", otherwise the knowledge requirements for fishing vessel construction and stability would remain the same. Although the added requirement would somewhat deepen the knowledge on stability matters, it can hardly be seen as a sole remedy for those accidents.

Anyhow, even if stability matters are nowadays included in the training of the fishing vessel skipper and skipper of domestic service, it can be questioned whether the fishermen really understand the stability issues as they should? Need for a more easy-to-understand training of stability matters has been highlighted on the investigation reports as described above.

## **7 The possibility that the Convention becomes part of EU law**

Will the STCW-F Convention become an EU directive the same way as the STCW Convention has become? Then it would become binding to all member states whether they have ratified the Convention or not. Currently, there is no EU standard for fishermen training and although some member states have ratified the Convention, others are using national standards for training and certification.

As mentioned already earlier, the EU has given a decision authorizing member states to become a party of the Convention. (European Council, 2015) The legal basis for the decision as in the Treaty on the Functioning of the European Union for the decision was free movement. (van der Zwan 2018, 41) This is notable, as articles of the treaty concerning e.g.

safety were not listed. The decision is a rather short document, only two pages containing just three articles. Member states still outside the Convention were invited *"to take the necessary steps to deposit their instrument of accession to the Convention with the Secretary-General of the IMO within a reasonable time and, if possible, by 23 May 2017."* (European Council, 2015, article 2)

On the follow-up report, the Commission explained the need for the decision because the regulation 7 of the Convention on the recognition of certificates falls within the exclusive competence of the EU. When encouraging the member states to join the Convention, the Commission lists as reasons for the ratification e.g. *"the protection of fishers, safer international shipping, the safety of life and property at sea, the protection of marine environment, free movement, harmonization of qualifications and establishing a level playing field."* The Commission also mentions how STCW Convention has been brought to EU legislation by directives and how *social partners* in sea fisheries have repeatedly asked member states and the EU to take actions towards implementation. The Commission *"strongly invites"* the member states to become party to the Convention and keep it important *"to create a level playing field and avoid friction between international and Union law."* (European Commission, 2019)

The EU Sectoral Social Dialogue Committee in Sea-Fishing (SSDC-F) is an institution established within the EU and has three so called social partners, which are: European Transport Workers' Federation (ETF), General Confederation of Agricultural Co-Operatives in the European Union (COGECA) and Association of National Organisations of Fishing Enterprises in the European Union (Europêche). (SSDC-F)

The SSDC-F lists some key areas where they are focusing on their website, there are e.g. *"health and safety issues, lobbying for the transposition of the International Labour Organisation Convention on work in fishing, making attractiveness of the sector attractive, in particular towards young workers and monitoring the ratification of the International Maritime Organisation International Convention on Standards for Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F)."* (SSDC-F)

The situation at EU level is thoroughly described on a paper *Training and certification of fishermen - The role of the European social partners in sea-fishing* by van der Zwan, published in December 2018 under the auspices of the SSDC-F presented above. The paper



introduces applicable international and EU law and competencies of the union. (van der Zwan 2018)

These three social partners have been strongly promoting the directive and have several times requested the Commission to make a legislative proposal for a directive implementing the STCW-F Convention into EU legislation. (van der Zwan 2018, 50) They are of the view that UNCLOS would at least indirectly require contracting parties to ratify the STCW-F Convention. All member states and the EU itself are parties to UNCLOS. (van der Zwan 2018, 21)

According to the Article 94, paragraph 1 of the UNCLOS flag states *"shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag"* and paragraph 3 *"Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, inter alia, to: (a) the construction, equipment and seaworthiness of ships; (b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;"* (UNCLOS Article 94)

The social partners present that since there is an applicable international instrument, the STCW-F Convention, flag states or even the EU should ratify it in order to fulfil the requirements of the UNCLOS. (van der Zwan 2018, 22)

The training of fishers is within the shared competence of the EU and member states meaning both the EU and member states may legislate this matter. When EU wishes to legislate something, which falls within shared competence, it shall take into account the general principles of subsidiarity and proportionality. The principle of subsidiarity means that only if the objectives cannot be reached by national legislation, the EU can take over. The principle of proportionality means that the action shall not go over what is needed to reach the objectives. Also, according to the social partners, as a party to the UNCLOS, EU has responsibility to put forward such measures that implement the UNCLOS as well. (van der Zwan 2018, 47)

If the aim is e.g. the free movement of workforce, a level playing field for companies or the worrying accident at work statistics or a common inspection regime at the EU level, these quite naturally are goals which are not achieved if all member states play the game with their own rules. When there already is an applicable international instrument, although not that

popular one, the STCW-F Convention, it may not be disproportional to put all member states to use it.

Van der Zwan also describes the different legal basis how the EU could regulate this matter. When implementing the 1978 STCW Convention into the directive of minimum level of training of seafarers (2008/108/EC) or the Torremolinos Protocol, the used legal basis was improvement of maritime transport safety. In addition, the legal basis of protecting workers' health and safety could come into question. Whereas, for education and vocational training the EU has only competence to support, coordinate or supplement and it is not seen suitable for this. (van der Zwan, 2018, 48) Although improvement of maritime transport safety was already used for the Torremolinos Protocol, there can be questions whether training of fishermen falls under it. However, as the phrase goes, where there's a will, there's a way.

It might be easy to forget from Finnish perspective but the EU is after China the second largest player in fishing industry with a share of 5 % of world total production. The industry sector employs about 350.000 people in the EU. (SSDC-F) There are estimated to be about 38 million fishers in the world when the number of merchant seafarers is estimated to be 1.65 million. Still, merchant shipping is much more internationally regulated, e.g. the 1978 STCW Convention is widely ratified when the STCW-F Convention is not. (European Parliament, 2018, 26, original source *Europêche*)

Why have the EU been so far reluctant to implement the STCW-F Convention into union law? Van der Zwan simplify the complicated reasoning behind the fact by a question, is it *"Because Member States wants less instead of more Europe?"* Although being in his own words a *"political over-simplification of reality"* (van der Zwan 2018, 18), there might be some truth on it. It is clear that the many member states are not that keen on ratification. Perhaps the EU does not want to use its political power for such an unpopular matter for member states, especially in the turbulence of the Brexit and other criticism against the EU raising voices in some member states. However, the more likely explanation is that the EU wants to see the outcome of comprehensive review before going forward with a directive. Otherwise, there would be a need to update the directive or at least the annex of it just after its publication and consequently all member states should do the same legislative amendments at the national level. This would be rather burdensome exercise to all parties. After all, when considering the size of the fishing industry on the whole EU level, political aspects including e.g. free movement and protecting people at work, it might be just a matter of time when EU goes forward with a directive implementing the STCW-F Convention.

On the other hand, there are large member states where the current certification system is far from the STCW-F requirements. The Committee on Fisheries of European Parliament requested a study of the training of fishers in the year 2018. According to the report, e.g. in Italy, there is no compulsory training for fishermen but just by registration to the register of fishermen, a person can start working at least as a deck hand on fishing vessels. Further qualifications for higher ranks can be accessed through harbor authorities and apparently, those qualifications are not fishing vessel specific but general navigation qualifications of some sort. Training might variate between regions since the regions have autonomy on training matters but generally, there are just a few mandatory parts of training for higher qualifications. Unfortunately the division used in the report is small scale coastal fleet (vessels less than 12 meters) and large scale fleet (more than 12 meters) and hence it is not known how many larger than 24 meters vessels there are in Italy. However, the number of less than 12 meters fishing vessels was 8763 and the number of larger than 12 meters vessels was 3562 in the year 2017. (European Parliament, 2018, 117, 119 and European Commission, 2017, 330) The same numbers for Finland in the year 2017 were 1513 less than 12 meters vessels and 64 more than 12 meters vessels. (European Commission, 2017, 280)

If there are member states with much larger fishing vessels fleets but significantly lower training requirements than the STCW-F would bring, it might be challenging to find a political consensus for a common EU legislation on the training of fishers. There might be some other aspects to consider as well, not directly connected to training, like the unity of the EU seen outside or Finland's solidarity towards other EU states or third countries. Should common international regulations be promoted in order purely to protect fishermen practicing their professions, especially in developing countries where the current standards of safety might be much lower? Are the challenges ratification would cause in Finland justified for these higher purposes? This will be left for decisions makers to consider.

## 8 Impact assessment of ratification

### 8.1 Economic impacts

Tightened qualification requirements could affect crew supply and availability although transitional provisions would ease the situation of the existing fishing vessel officers and safeguard their fundamental rights relating to the work and freedom of the livelihood.

The Convention does not allow direct acceptance of STCW deck officer certificates as the Act on Transport Services currently does. Interchangeability and transferring from the merchant fleet to fishing vessels would be more difficult and complicate the manning of fishing vessels. It could make operations difficult as there are likely significant numbers of STCW certificated deck officers working on Finnish fishing vessels because the number of valid fishing vessel specific certificates is that low.

The new chief engineers wishing to work on the fishing vessels of 750 kW or more should have at least chief engineer, less than 3000 kW certificate (STCW III/3) instead of current watchkeeping engineer certificate (STCW III/1). This would also affect the availability of workforce and create a need for supplementary training with related costs.

Generally, the new requirements would create a need for supplementary and/or refresher training thus increasing costs for the fishermen and their employers. A possible need for dispensations to bridge the shortage of properly certified persons could increase the costs of fishing vessel shipowners. The personnel of Finnish fishing vessels could come even more from countries where already properly qualified workforce is available; this could mean e.g. Latvia, which is party to the Convention.

It is proposed as part of the comprehensive review of the Convention that basic training for all fishing vessel personnel should be refreshed every five years. The refresher courses for STCW basic training in Finland costs approximately 700 euros per person and likely the STCW-F refreshers would be at the same price level. This would be applicable to all fishermen, from a deck hand to skipper, only personnel working on fishing vessels less than 12 metres could be probably left out as discussed in Chapter 4.8. Additionally, the basic training should be included in the Certificate of Competency or alternatively, a separate Certificate of Proficiency should be issued. This would mean an administrative fee of approximately 110 to 150 euros to be paid every five years.

The training of sustainable fisheries would be a new training applicable to all fishing vessel personnel. At least the current draft of the Code requires that the training shall be refreshed every five years. Although it might be possible to include sustainable fisheries training to STCW-F basic training, it would slightly increase the length and probably costs of the training.

Qualification requirements for new persons entering the industry would be higher than for current certificate holders. This could complicate entry into the market for new fishing vessel owners. On the other hand, qualifications are personal and labor can freely move from company to company.

Becoming party to the Convention could reduce investments made by shipowners if the operations become more difficult and thus the economic profitability was weakened. Ratification would bring the qualification requirements to the same level as on the existing STCW-F states but competitiveness relative to countries with lower standards could deteriorate. Tightened standards of competence and thus potentially hampered operations could reduce fishing activities and thus the supply of fish.

The easier process of recognition would promote the freedom of movement of workers and could partly ease the manning of Finnish fishing vessels, especially from other STCW-F countries. However, if Estonia and Sweden stayed out of the Convention, then it will not be any longer possible to recognize their national certificates and there are significant number of at least Estonians, if not also Swedes, working on Finnish fishing vessels.

If other coastal states that have ratified the Convention began to exercise their right to demand STCW-F certificates for fishing vessels entering their waters, this would hamper the fishing operations of the vessels of non-ratified states.

The current national catch area I, covering the outer archipelago and extending to the outer limit of Finland's territorial waters (1687/2009, section 2, subsection 1, paragraph 27) might be too wide and could be seen as seagoing fishing where the STCW-F shall be applicable. This would broaden the area where STCW-F certification should be required affecting the manning and training requirements and hence increasing the costs of the industry.

## 8.2 Impacts on the activities of authorities

Several acts, decrees and regulations would have to be amended. This includes at least Act on Transport Services (320/2017), Government Decree on the Manning of Ships and Certification of Seafarers (508/2018), Regulation on competencies of ship's crew (TRAFICOM/204498/03.04.01.00/2020) and Regulation on watchkeeping on board (TRAFI/16654/03.04.01.00/2011).

Qualification requirements for further vocational qualification in seafaring (OPH-2611-2017) should be amended at least in order to update the training requirements for limited water skippers, but perhaps also to implement the trainings of unlimited waters deck officers and STCW-F engineer officers. However, it is a question of interpretation if a party must have training programs available for the two latter mentioned if there is no real demand for unlimited waters trainings and engine certification based on the STCW-F-certification as described in Chapter 4.5.1. The interpretation here is that Finland would be deemed to give the Convention full and complete effect by amending the legislation so that it takes account also unlimited waters and STCW-F engineering certification although there would not be training programs available in the country. Then it would be rather easy to create training programs in the future if demand arises. By this way, foreign unlimited waters or STCW-F engineer certificates could be accepted and recognized.

The training of sustainable fisheries should be created and implemented into the qualification requirements.

Recognition of foreign certificates would become easier for authorities as it would be restricted to other STCW-F certificates only and the Convention has a clear procedure for recognition. There would not be any longer need for the time-consuming comparison of foreign and our national trainings.

The new requirement that a Certificate of Proficiency should be issued for STCW-F basic training is not estimated to increase the number of issued certificates significantly. There are only 57 registered fishing vessels of 12 meters or more where the basic training would be required. It could be estimated that the personnel of those vessels would mean 10-40 more certificate applications to Traficom on yearly basis.

If it will not be possible to solely use the medical certification system based on the 1978 STCW Convention as discussed in Chapter 4.12, then a separate STCW-F system should be

created and medical practitioners trained and approved for both systems. It would create unnecessary administrative burden and costs as double systems should be maintained.

If catch area I was considered too broad and at least partly under the scope of the Convention, it could also create a need to reconsider the catch areas and corresponding technical requirements on the Act on the Technical Safety and Safe Operation of Ships, which currently is having an identical definition of the catch area I than the Act on Transport Services and the Act on Ships' Crews and the Safety Management of Ships. This could lead to desynchronizing of definition between acts if there is no need to tighten technical requirements as well.

Some training programs shall be approved by the administration and all training must be regularly monitored affecting activities at Traficom. It is also likely that Traficom should provide support and advice for training providers outside the scope of mandatory approvals.

The Convention contains an obligation to report issued dispensations yearly basis. (STCW-F regulation 9.3 and draft Convention regulation I/9.3) This would be a new obligation compared to current national system but it will not increase administrative burden any significant way.

### **8.3 Environmental impacts**

The proposed new sustainable fisheries training would help to increase understanding about environmental matters among fishing vessel personnel and hence have a positive effect on environment. Refresher trainings every five year would maintain the level of knowledge and give a possibility to update skills up to the most recent information. Increased training requirements in general could have preventative effect to damage to the marine environment.

### **8.4 Other societal impacts**

Need to refresh basic training every five years would increase the safety level as there is no requirement of refresher trainings currently in place. This would especially affect the personal safety of fishing vessel personnel increasing safety and health at work.

Internationally more widely accepted Finnish certificates would partly promote free movement and probably even attract younger people into the branch. However, it seems to be an European wide challenge to get younger generations interested in professions in fishing

and an easier way to work abroad might not be that significant remedy for that. Also, the recognition of other than STCW-F certificates would no longer be possible.

Ratification would promote common international regulation on the training and certification of fishers.

## **9 Need of development of current legislation**

Even if Finland would stay outside of the Convention, the study recognized some areas of legislation where the national requirements are unclear or even inconsistent and could be developed.

### **9.1 Certification requirements for class II and III fishing vessels**

Section 103 of the Act on Transport Services prescribes the certification requirements based on the fishing vessel classes, not taking into account the trade area for class II and III vessels. It leaves a loophole where especially class III fishing vessels could operate worldwide with the same Certificates of Competency that are required for catch area III meaning in practice the Baltic Sea. This has brought some needed leeway for Traficom when issuing Minimum Safe Manning Documents for fishing vessels making a single transfer journey e.g. to a port in North Sea but the intention of the legislator may not be to allow that large operation area. As discussed, the Finnish certificates required for class III vessels are in line with the current limited waters requirements of the Convention, but those do not fulfil requirements for unlimited waters.

Formerly, if a Finnish fishing vessel made a journey outside of the Baltic, STCW certificates were required for the crew instead of our national fishing vessel certificates. (Traficom archive of Minimum Safe Manning Documents) Nowadays, when the certification requirements are in the law, the same kind of case-by-case discretion is no longer possible.

However, if a shipowner applied for a Minimum Safe Manning Document for a trade area which is not considered safe in accordance with the manning chapter of the Act on Ships' Crews and the Safety Management of Ships (1687/2009, Chapter 2), Traficom may refuse to issue the document.



The technical requirements and operational area where the vessel is inspected to operate, also gives its limitations to the use of a vessel. These are stipulated on the Act on the Technical Safety and Safe Operation of Ships (1686/2009)

## **9.2 Requirements for Skipper's certificate (category A) for fishing vessels**

The Government Decree on the Manning of Ships and Certification of Seafarers (508/2018) Section 32 on Skipper's certificate (category A) for fishing vessels does not require that the candidate should meet the requirements for being granted the Skipper's certificate (category B) for fishing vessels.

The needed seagoing service for category A certificate is: *"have completed 12 months of seagoing service as deck officer or skipper of a fishing vessel of not less than 12 metres in length."* (section 32, subsection 1, paragraph 3)

The needed seagoing service for category B certificate is: *"have completed 24 months of seagoing service in the deck department of a fishing vessel of not less than 12 metres in length."* (section 31, subsection 1, paragraph 3)

When there is no requirement that applicant for category A certificate should meet the requirements of the category B certificate, it is possible to obtain the category A certificate with 12 months seagoing service only. Hence, the required sea time for higher category A certificate is less than the lower category B certificate although the category A requires seagoing service as an officer or skipper, when for category B service can be also as a deck hand.

This is also in contradiction to the STCW-F requirements where a candidate for certification of skipper in limited waters shall *"meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited or unlimited waters."* (STCW-F Chapter II regulation 3.2.2 and draft Convention regulation II/3.2.2)

## **9.3 Medical care training for fishing vessel personnel**

It seems that there is a gap in the Finnish legislation regarding the implementation of the directive 92/29/EEC on the minimum safety and health requirements for improved medical

treatment on board vessels. Fishing vessels, both seagoing and estuary-fishing, are included in the definition of a vessel in the article 1:

*"vessel: any vessel flying the flag of a Member State or registered under the plenary jurisdiction of a Member State, seagoing or estuary-fishing, publicly or privately owned, excluding inland navigation vessels, warships, pleasure boats used for non-commercial purposes and not manned by professional crews, tugs operating in harbour areas."*

#### Article 5:

*"Each Member State shall take the measures necessary to ensure that:*

*2. all persons receiving professional maritime training and intending to work on board ship have been given basic training in the medical and emergency measures to be taken immediately in the event of an accident or serious medical emergency;*

*3. the captain and any worker or workers to whom he delegates the use of the medical supplies pursuant to Article 4 (1) (b) have received special training updated periodically, at least every five years, taking into account the specific risks and needs connected with the different categories of vessel and in accordance with the general guidelines set out in Annex V." (Article 5.2 and .3)*

The guidelines in Annex V are very short and in general level:

*"1. Basic understanding of physiology, symptomatology and therapeutics.*

*2. Elements of preventive medicine, notably individual and collective hygiene, and elements of possible prophylactic measures.*

*3. Ability to perform basic types of treatment and supervise emergency disembarkation at sea.*

*Person responsible for treatment aboard category A vessels should if possible receive their practical training in hospitals.*

*4. Detailed knowledge of how to use the various remote medical consultation facilities.*

*II. This training should take account of the programmes of instruction detailed in relevant recent international documents." (92/29/EEC, Annex V - Medical training of the captain and designated workers)*

There is no direct reference to for example STCW A-VI/4.2 training in medical care but a recommendation that training should take into account relevant recent international documents. Those four areas of knowledge are much less extensive than the KUP-tables for the STCW medical care training.

Act on Ships' Medical Stores (584/2015) is applicable *"to vessels sailing under the Finnish flag with crew personnel working on board"*. (584/2015, section 2 subsection 1) Some vessels are excluded from the application, e.g. *"vessels of 10 metres in length or less, which are not used in general traffic for the carriage of passengers, for the carriage of cargo on a regular basis, or for towage"* (section 2 subsection 2 paragraph 3) and small fishing vessels are then out of the scope. Nevertheless, for larger fishing vessels the act is applicable.

The section 5 subsection 3 of the Act requires that *"the master and medical store manager shall have sufficient training to perform these tasks"* and section 17 subsection 1 paragraph 2 gives the authority to give further provisions of the required training by decree. The decree in question is Decree of the Ministry of Social Affairs and Health on Ships' Medical Stores (589/2015) and the section 7 subsection 2 reads that *"The master and medical store manager of a ship in vessel category D or of a fishing vessel must have a valid certificate of a completed medical first aid course."*

There is no definition of medical first aid course nor further reference to any specific first aid training. Article 5.3 of the directive requires refresher training at least every five years and now there is not that kind of requirement on the national legislation. First aid trainings may not contain all the required areas of training either, e.g. ability to perform basic types of treatment might be more extensive than just first aid training where the aim is to secure vital functions until professionals can take over the care of a patient.

Our national training of a skipper of fishing vessels seems to fulfil the requirements of annex 5 of the directive. (Qualification requirements for further vocational qualification in seafaring)

The Certificate of Competency of watchkeeping officer (STCW II/1) can substitute the skipper's certificate (category A or B) for fishing vessels with certain conditions as stipulated on the Act on Transport Services (320/2017 section 103, subsection 7). Training for watchkeeping officer includes STCW A-VI/4 medical first aid training. (STCW Table A-II/1) The medical first aid training seems to fulfil the requirements of the annex V of the directive. (STCW Table A-VI/4-1)

Because the requirements of the annex V of the directive are in a general level, e.g. the *"basic understanding of therapeutics"*, and a layman may have lacking understanding what should be included e.g. in therapeutics, it is preferable that medical advisers would confirm conclusions presented here before considering the need for legislative actions.

When reading the EU report on the training of fishers, it does not give a picture that the directive would be that well implemented at the EU level either since some member states seem to have rather imperfect training systems. Although the status of the directive is not studied in the report, it is not likely that medical training requirements would be in place either if the training requirements were generally insufficient. (European Parliament, 2018)

#### 9.4 The future STCW-F requirements in medical aid and medical care

The current draft of the revised STCW-F Convention contains different KUP-requirements for medical care or medical aid. Skippers operating in unlimited waters have the broadest KUP-requirements. These seem to fulfil the annex V provisions described in the previous chapter:

*"Medical care*

- .1 knowledge of medical first aid procedures*
- .2 knowledge of relevant procedures to provide adequate medical care on board***
- .3 knowledge of procedures for obtaining medical advice by radio*

*Thorough knowledge of the use of the following publications:*

- .1 International Medical Guide for Ships or equivalent national publications*
- .2 medical section of the International Code of Signals"*

(Draft Code Table A-II/1)

The line in bold text is a new requirement compared to the existing STCW-F. (STCW-F Chapter II, appendix to regulation 1, paragraph 13)

Skippers operating in limited waters have somewhat lighter requirements, likely still in compliance the annex V of the directive:

*"Medical care*

- .1 knowledge of medical first aid procedures*
- .2 knowledge of relevant procedures to provide adequate medical care on board***
- .3 knowledge of procedures for obtaining medical advice by radio*
- .4 practical application of medical guides and advice by radio including the ability to take effective action based on such knowledge in case of accident or illness that are likely to occur on board the vessel".*

(Draft Code annex 2 Table A-II/3)

The line in bold text is a new requirement compared to the existing STCW-F. (STCW-F Chapter II, appendix to regulation 3, paragraph 13)

The requirement for officers on watch both in unlimited and limited waters have similar with each other, rather limited KUP-requirements on medical aid: "*Knowledge of first aid procedures. Practical application of medical guides and advice by radio.*" (Draft Code Table A-II/2 and Table A-II/4) These have not changed from the current STCW-F requirements (STCW-F Chapter II appendix to regulation 2, paragraph 18 and appendix to regulation 4, paragraph 15) and likely do not fulfil the annex V requirements.

Basic training for all fishing vessel personnel does not fulfil the annex V requirements, e.g. there is no KUP-requirement of obtaining medical advice by radio. (Draft Code annex 2 Table A-III/1-3)

The parts of the directive are outdated, e.g. it still uses gross register tonnes although it should be gross tons. (van der Zwan, 2018, 35) Although the EU may have intentions that the STCW-F requirements in medical care and medical aid would replace those currently in the directive, it will still be needed in order to regulate medical care on smaller fishing vessels and other types of the vessels.

## 9.5 Regulation on competencies of ship's crew

Traficom's regulation on competencies of ship's crews (TRAFICOM/204498/03.04.01.00/2020), paragraph 6, stipulates that safety training for fishing vessel personnel can be arranged by a training provider which is authorized to arrange vocational training in fisheries or training provider of maritime training authorized to arrange vocational training in seafaring. As described in Chapter 4.9 that is in conflict with the Act on Vocational Education and Training and the regulation should be amended corresponding way.

## 10 Critical examination and conclusions

The first research question was *what are the differences in current national training requirements and those laid out in the Convention?* The study revealed that the Finnish fishing deck officer training is in line with the current requirements but the comprehensive review would bring some amendments as described in Chapter 4.5 under the title *amendments to the training of limited waters skipper*. However, it should not be possible to substitute STCW-F deck officer qualifications by the STCW certification as we currently do. This is studied in Chapter 4.7.

The differences between limited and unlimited skippers are described in Chapter 4.2 although there are no unlimited trainings currently available in Finland. It is nevertheless important to recognize those differences especially when determining the area of limited waters and to know what it would mean if we should begin to offer unlimited trainings as well.

The current national training system does not separate the training of the skipper and officer but all students are receiving the full training of a skipper. Because this was found reasonable e.g. from safety perspective as discussed in Chapter 4.5, the differences in trainings for limited waters skippers and officers are not studied in this work. It can be justified to separate trainings in larger countries having more people working in fishing industry but in Finland, it is probably best to continue with one single training for both.

The national qualification requirements of fishing vessel chief engineers were found to contain a gap both in training and seagoing service requirements as written in Chapter 4.6. It is possible to substitute the STCW-F engineer officer certification by the STCW qualifications, but we should be requiring management level certification instead of the watchkeeping engineer (STCW III/1) that is on the operational level.

The basic training for fishing vessel personnel in Finland should be the same as required by the Convention because the Regulation on competencies of ship's crews stipulates that the training shall be planned and given according to the Convention. The comprehensive review will bring amendments to the basic training. These are studied in Chapter 4.8.

The second of the research questions was, *would it be reasonable to implement the Convention in light of safety of life and property at sea, protection of the marine environment or freedom of movement for workers?* As the Finnish fishing vessel fleet currently fishes only in the Baltic Sea and the training system for deck officers is in line with the STCW-F limited waters training, the ratification would not largely alter the situation regarding safety or the protection of the marine environment. The comprehensive review of the Convention would bring some additional knowledge requirements and amendments to the Knowledge, Understanding and Proficiency requirements of limited waters deck officers as studied in Chapter 4.5 but probably those are not a sufficient reason for ratification and the amendments to the national training system can be done also if staying out of the Convention, as appropriate.

Before beginning the study, it was recognized as an important question whether or not the Baltic Sea can be interpreted to be limited waters. If not, it would be more difficult to become STCW-F compliant as there is no limited waters training currently available. The study revealed that there are reasonable arguments supporting the interpretation that the Baltic Sea can be seen as limited waters and the coastal states surrounding the Baltic Sea already parties to the Convention are interpreting the definition similarly. This is studied in Chapters 4.1, 4.2 and 4.4.

It is not likely that a separate STCW-F engineer training would be reasonable to be created in Finland as discussed in Chapter 4.6, but the STCW certification could be used in the engine department also after becoming party to the Convention. This would mean that chief engineer's qualification requirement would rise from watchkeeping engineer (STCW III/1) to chief engineer, less than 3000 kW (III/3) as long as all Finnish fishing vessels have propulsion power of less than 3000 kW. This could have a positive effect on safety and marine environment but can also be done without joining the Convention.

In addition to obligatory requirements, there are guidelines for deck hand trainings that are recommendations of nature as described in Chapter 3.2. The ratification itself would not change anything regarding deck hand training in Finland because parties to the Convention may decide if they follow the recommendations and to what extent. Perhaps even if staying outside of the Convention the fishing vessel shipowners could be motivated to follow the recommendations of deck hand trainings, as appropriate.

Benefits for the freedom of movement for workers cannot be fully achieved without ratification. Although Finland would put all trainings in line with the Convention, the other STCW-F states cannot recognize our certificates if we are not formally party to the Convention. The current system of recognition based on the Directive 2005/36/EC on the recognition of professional qualifications is complicated and does not suit well for fishing vessel personnel. However, the freedom of movement for workers shall be considered taking into account those countries that are supplying workforce to Finnish vessels. If those states still stayed out of the Convention, it would not promote freedom of movement for workers in practice, the result would be the opposite. The recognition of foreign certificates is studied in Chapter 4.13.

The new and amended training requirements of the Convention could be advisable to implement in Finland anyway, especially in the deck department. The amendments are rather

reasonable in general, e.g. amendments to the training of limited waters skipper in Chapter 4.5 recognized only two new KUP-requirements that are less important in the Baltic Sea, the ability to calculate tidal conditions and ocean voyage planning. By this way, our system would stay in line with the Convention for the possible future ratification or if the Convention becomes EU law.

Summing up, becoming party to the Convention is not necessary from a safety perspective but could be justified for the freedom of movement for workers, for solidarity reasons or if other Convention states begin to demand STCW-F certification in their waters. However, Finland should follow what position the current workforce supplying states are taking regarding the ratification. The comprehensive review should be followed also in the future and possible amendments implemented into the Finnish requirements even if staying out of the Convention to be ready for future implementation, unless there is a particular reason to leave some specific amendment unimplemented.

Even if staying out of the Convention, the content of the fishing vessel safety training required on Section 103 of the Act on Transport Services should be elaborated so that it would truly supplement those fishing vessel specific areas, which are not included in the STCW training.

The third research question, *What would be the impacts if the Convention was implemented or if it becomes binding through EU legislation*, recognized several rather problematic areas regarding the supply of fishing vessel personnel as described in Chapter 8. The transitional provisions should cover the existing fishermen allowing them to continue their professions but especially the need to waive our current equation of STCW deck officer certificates on fishing vessels could be problematic. Before making final conclusions, it would be advisable to consult fishing vessel owners how they see the impacts. This was now left out of the study due to time constraints as consultation would have been meaningful only after finishing the study and having the outcome of the study ready to be presented for the representatives of the industry.

### **Proposals for further study**

Despite the small size of the Finnish fishing vessel fleet, there are surprising many reported accidents. It was not possible to determine the causes of accidents and how the level of safety could be increased as part of this study due the extent of the work. That could be a subject for a separate study. For the planning of regulative measures, it would be useful to know the



root causes and contributory causes of the accidents and if our accident statistics differ from similar countries.

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## Attachment - Reported accidents with Finnish fishing vessels involved

Year	Occurrence	Causes	Length	Report submitter's own assesment of the cause
2020	Grounding/bottom contact	Technical malfunction	13	It was dark. The heading line of the vessel's new chart plotter was tossing making it difficult to navigate.
2017	Grounding/bottom contact	Human error	20	Just before the waypoint turn the mouse of the computer dropped to the floor and navigator was collecting the pieces. When ready, the navigator realized it was too late to avoid grounding.
2016	Collision	Other vessel	10	Other vessel (leisure boat) didn't avoid pairtrawling vessels, it had avoided only one of the trawlers.
2015	Grounding/bottom contact	Navigational aids	41	"A red buoy marking the left side of a fairway had dislocated to the right side of a fairway. This caused further confusion in the management of the vessel. The immediate actions were slowing vessels speed by reversing main engine propeller. This caused vessel being unable manoeuvre and grounded."
2015	Capsizing, total loss	Cargo	12	Sudden list, happened too fast to make any detailed observations.
2013	Grounding/bottom contact	Human error	34	Darkness.
2013	Damage to the vessel/equipment	Technical malfunction	34	Ruptured connection caused leakage to the engine room.
2013	Grounding/bottom contact	Environment	23	Narrow fairway, bad weather and swell.
2013	Grounding/bottom contact	Technical malfunction	34	The vessel turned to port after switching on the autopilot and it could not be returned to the correct course.
2012	Grounding/bottom contact	Other cause	12	Blackout.
2012	Serious injuries	Environment	30	A crew member injured when a large wave hit the vessel.
2011	Collision, total loss	Human error	23	When pairtrawling a cargo vessel collided the fishing vessel. Visibility 300 meters.
2011	Grounding/bottom contact	Technical malfunction	23	Blackout.
2010	Fire/explosion	Technical malfunction	36	Apparently begun from electrical wiring.



Year	Type of accident	Causes	Length	Damages
2008	Injury/fatality	Safety procedures known but not followed	14	A deck hand drowned
2008	Grounding/bottom contact	Other vessel's error	42	No damages
2007	Fire/explosion	Risky structural arrangements	47	A wall of the accommodation compartment became charred.
2007	Collision with floating object other than vessel	Other vessel's error	32	Damaged fishing gear, surface floating trawl.
2007	Storm damage	Hard storm	13	The bridge windows broken, water to the navigation equipment.
2006	Engine damage	Technical malfunction	21	Gear box fluids leaked, oil pipe broken.
2005	Collision	Technical malfunction in navigation equip.	15	Damages in bow.
2004	Capsizing	Stability contrary to the rules	30	Vessel sank.
2004	Leak	Stability contrary to the rules	32	Vessel sank.
2001	Collision	Poorly planned operations	14	Hole and dent on port side, large leak.
2001	Collision	Wrongly estimated other vessel's movements	12	Minor damages to railings.
2001	Collision with floating object other than vessel	Not observed floating object	23	Propeller shaft broken off, propeller missing.
2001	Fire/explosion	Engine room fire	24	Burned to wreck.
1999	Grounding/bottom contact	Technical malfunction in navigation equip.	24	No damages
1999	Grounding/bottom contact	Inadequate position fixing	17	Rudder, propeller and part of bottom plating damaged.
1998	Collision	Inadequate position fixing	10	Vessel sank.
1998	Fire/explosion	Engine room fire	11	The engine and engine room burned.
1997	Capsizing	Hard storm		Vessel sank.
1997	Grounding/bottom contact	Sickness, fatigue, exhaust	30	-