



1System 4 IWT learning: upskilling pathways

WP 5- Creating a Community of Practice for structured cooperation

Activity 5.3

Report on impact analysis of candidates missing for filling in vacancies in teaching

DELIVERABLE D 5.3

PROJECT: 1System 4 IWT learning: upskilling pathways
PROJECT NO: 2022-1-NL01-KA220-VET-000088164
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EXECUTIVE SUMMARY

Executive Summary	3
1. Introduction	4
Survey Invitation	4
2. Research design	4
3. Key results	4
3.1 Number of Students by Level of Education	4
3.2 Implementation of EU Directive 2017/2397	4
3.3 Availability of Teachers	4
3.4 Student enrolment	5
3.5 European cooperation	5
4. In-depth analysis	5
4.1 Regional differences	5
4.2 Teacher capacity as a structural bottleneck	5
4.3 Unfamiliarity with the sector among young people	5
4.4 Positive attitude towards cooperation	5
5. Recommendations per Stakeholder	6
6. Conclusion	6
Colophon	7
Appendix 1	7

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EXECUTIVE SUMMARY

The ERASMUS+ project “**1System 4 IWT learning: upskilling pathways**”- 1S4IWT, aims to build a learning system that will act as a solution for ensuring and enduring continuity of education & training for IWT students and workers and generate a „personalized learning experience”. Furthermore, the project will focus on developing commons resources that meet the needs of nowadays trends and challenges for (incoming) staff in the IWT sector.

WP 5 deals with the creation of a community of practice for structured collaboration.

As part of the strengthening and harmonization of inland navigation education in the European Union, a survey was conducted in 2024 among 16 educational institutions spread across several EU Member States and neighboring countries. This survey focused on student numbers, availability of lecturers, implementation of Directive (EU) 2017/2397, and the general state of the sector.

The analysis shows a worrying trend: although many institutions have fully implemented the guideline and the student intake is mostly stable, the sector is struggling with a shortage of qualified (young) teachers. The main causes are the low attractiveness of education compared to other sectors and insufficient salaries. The sector also appears to be insufficiently known among young people, which limits the influx.

Despite this, there is a great willingness to collaborate in Europe, with 88% of respondents wanting to participate in a community of practice. Institutions indicate that they want to actively contribute through e-learning, exchanges and practice-oriented education.

Recommendations are aimed at policymakers (incentives, campaigns), educational institutions (modernization, cooperation), and industry (internships, promotion). There is an urgency to jointly invest in visibility, capacity building and innovation to make the sector future-proof.



1. INTRODUCTION

As part of the strengthening of the inland navigation sector in the European Union, a survey was conducted in 2024 among educational institutions offering inland navigation training. The aim of this survey was to gain insight into the current situation of inland navigation education, with specific attention to numbers of students and teachers, implementation of Directive (EU) 2017/2397, and structural challenges regarding intake and capacity.

The survey was conducted among European educational institutions with inland navigation training courses, including an invitation:

SURVEY INVITATION

Subject: Invitation to participate in survey on inland navigation education in the EU Dear «Contact_person»,

We cordially invite you to participate in an important survey on inland navigation education in the European Union. This survey aims to understand the number of inland navigation teachers and students in different EU countries.

Survey objective:

To collect data on the number of teachers and students in inland navigation education.

Identify trends and challenges in inland navigation education.

Improve the quality and harmonisation of training within the EU.

Your experience and insights as an inland navigation school are invaluable. Together, we can strengthen inland navigation education in Europe and educate future generations well.

2. RESEARCH DESIGN

The survey yielded 16 complete answers from institutions from Romania, Poland, France, Austria, Serbia and the Netherlands, among others. The average time to complete the questionnaire was 9 minutes and 37 seconds.

3. KEY RESULTS

3.1 Number of Students by Level of Education

- 3.1.1 **OL (deckhand/boatmen) level:** Average of 120 students per institution, ranging from 50 to 240.
- 3.1.2 **ML level (boatmaster/captain):** Strong diversification. Several institutions report 0 students, while some outliers go up to 230 students.

3.2 Implementation of EU Directive 2017/2397

- 3.2.1 **Fully implemented:** 11 settings
- 3.2.2 **In progress:** 5 settings
- 3.2.3 **Not yet started:** 0

3.3 Availability of Teachers

- 3.3.1 **Experienced teachers:** 9 institutions report sufficient availability, 6 suffer from a





- 3.3.2 shortage or limited availability.
- 3.3.3 **New/young lecturers:** 10 institutions foresee a shortage or limited intake in the near future.
- 3.3.4 Main obstacles:
- 3.3.5 Attractiveness of other sectors (75%)
- 3.3.6 Low salaries (63%)
- 3.3.7 Retirement of current teachers (38%)

3.4 Student enrolment

- 3.4.1 **Current status:** 11 institutions report sufficient enrolment, 3 suffer from undercapacity,
- 3.4.2 1 has no students.
- 3.4.3 **Expectation:** 4 institutions expect growth, 11 stability, and 1 a decline.
- 3.4.4 Hurdles:
- 3.4.5 Unfamiliarity with the sector (94%)
- 3.4.6 Competition from other sectors (44%)

3.5 European cooperation

- 3.5.1 14 of the 16 institutions want to participate in a community of practice
- 3.5.2 Contributions: e-learning, student exchange, practice-oriented education, cooperation with industry

4. IN-DEPTH ANALYSIS

4.1 Regional differences

There are clear differences between countries:

- Eastern European countries show higher student numbers.
- Western European institutions are further along with curriculum renewal and EU directive implementation.

4.2 Teacher capacity as a structural bottleneck

The shortage of young teachers poses a threat to continuity and educational quality. The attractiveness of other sectors and low salaries contribute greatly to this problem.

4.3 Unfamiliarity with the sector among young people

A crucial reason for low student intake is the unfamiliarity of inland shipping as a profession. Promotional campaigns are necessary to bridge this gap.

4.4 Positive attitude towards cooperation

The willingness to participate in a European network is high. Institutions want to share experiences, develop joint modules and organize international student exchanges.





5. RECOMMENDATIONS PER STAKEHOLDER

For Policy Makers (EU, national governments):

- Make subsidies available for the appointment and retention of young teachers.
- Launch EU campaigns for sector promotion among young people and reorientation workers.
- Accelerate implementation support of Directive 2017/2397, including digital learning resources.
- Facilitate diploma mobility within the EU through standardisation and recognition.

For educational institutions:

- Modernize education through digital learning environments, simulators, and blended learning.
- Strengthen industry links to encourage hands-on teaching.
- Identify and guide teacher potential among alumni or lateral entrants.
- Use European networks for collaboration, knowledge sharing and joint curriculum development.

For industry and employers:

- Organize guest lectures, internships and company visits for students.
- Fund or support training through sponsorship, equipment, or practice locations.
- Work with schools to create up-to-date lesson content.
- Promote career paths in inland navigation through sectoral PR campaigns.

6. CONCLUSION

The inland shipping sector is at a crossroads: although there seems to be sufficient student potential, there is a threat of a shortage of qualified teachers. At the same time, there is a great willingness to cooperate and innovate. This momentum must be used to make inland shipping education future-proof and attractive to new generations.





COLOPHON

Composition of the report:

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APPENDIX 1





INLAND NAVIGATION SCHOOLS SURVEY

16 Antwoorden

09:37 Gemiddelde tijd om te voltooien

Actief Status

1. Name of School/Institution:

Meest recente antwoorden

"CERONAV-ROMANIAN MARITIME TRAINING CENTRE"

16

Antwoorden

"Zespół Szkół Żeglugi Środlaodwej im. Bohaterów Westerplatte "

"School of shipping, shipbuilding and hydro building"

2 respondenten (13%) antwoordden **Maritime** op deze vraag.

Harlingen

fund for the Rhine Schiffer-BerufskollegOp Koers Berufskolleg RHEINMaritieme

Academie Maritime campus Maritime Firda School of shipping

Mobility and Public

MARITIME TRAINING BS mfe

inland shipping hydro building

University of Craiova

TRAINING CENTRE

Lycée CERONAV-ROMANIAN

2. Location (City/Country):

Meest recente antwoorden

"CONSTANTA and GALATI / ROMANIA"

16

Antwoorden

"Kędzierzyn-Koźle/Polska"

"Belgrade, Republic of Serbia"





2 respondenten (13%) antwoordden **FRANCE** op deze vraag.



3. Email

16

Antwoorden
Meest
recente
antwoorden:
anonimized





4. What is the current number of students at OL level? (deckhand/ boatmen)

Meest recente antwoorden

15

Antwoorden

"240"

"100"

"140"

2 respondenten (13%) antwoordden **50** op deze vraag.



5. What is the current number of students at ML level? (boatmaster/captain)

Meest recente antwoorden

16

Antwoorden

"230"

"0"

"0"





1 respondenten (6%) antwoordden 4 op deze vraag.

nvt
204 70 304 64 668 150
230

6. What is the status of the implementation of EU directive 2017/2397 in your current curriculum

Completely implemented	11
Work in progress	5
Not started yet	0
Andere	0



7. Availability of Experienced Inland Navigation Teachers:

Abundant	1
Adequate	9
Limited	2
Shortage	4



8. Availability of New or Young Inland Navigation Teachers:

Abundant	0
Adequate	6
Limited	5
Shortage	5



9. Please indicate the current student enrolment status at your school:

High enrollment (exceeding cap...)	1
Adequate enrollment	11
Low enrollment (below capacity)	3
No students enrolled	1





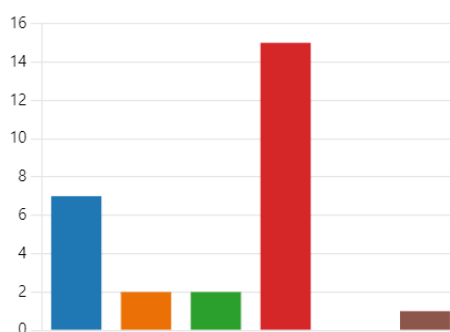
10. Please indicate the factors that impact teacher availability (select all that apply):

- Retirement of existing teachers 6
- Attractiveness of other industries 12
- Lack of competitive salaries 10
- Limited career growth opportun... 3
- Andere 2



11. Please indicate the factors that impact student availability (select all that apply):

- Attractiveness of other industries 7
- Lack of competitive salaries 2
- Limited career growth opportun... 2
- Unfamiliarity of the sector 15
- Availability of relevant study pro... 0
- Andere 1



12. What is your expectation in the near future for the number of inland navigation teachers?

- Growth 1
- Stable 9
- Decline 6
-





13. What is your expectation in the near future for the number of inland navigation students?



14. How could you contribute to inland navigation education in Europe?

Meest recente antwoorden

"-innovative approaches to teaching using new technologies (e-learning platform)"

"Improving the navigability of waterways in Poland"

"exchange of good practice"

16

Antwoorden





4 respondenten (25%) antwoordden **student** op deze vraag.



15. Would you be interested in joining the community of practice of inland navigation teachers where insights are shared as well as good practices for issues that we all encounter?

