

## Projects



**LEARN4SEA**

### **LEARN4SEA - Innovative joint learning for environmental-friendly behaviour of communities in the Black Sea Basin**

**Funding programme:** Interreg NEXT Black Sea Basin Programme

**Programme priority:** Clean and Green Region

**Specific objective:** RSO2.7: Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution.

**Project duration:** June 2024 - August 2026

**Total project budget:** 823.980,84 EUR

**Interreg Funds/ EU funds:** 741.582,75 EUR

#### **Partners:**

1. Romanian Maritime Training Centre Romania (RO) CERONAV- Lead Partner
2. Black Sea - Danube Association of Research and Development Bulgaria (BG) BDCA
3. LEPL – National Environmental Agency Georgia (GE) NEA
4. Piri Reis University Türkiye (TR) PRU
5. Shabla Municipality Bulgaria (BG) SM

**Project specific objective:** Raised awareness leading to enhanced environmental-friendly behaviour of communities and reduced pollution and strengthened capacities of local administrations to educate and train citizens at multiple educational levels, with focus on coastal areas and port cities in the Black Sea Basin regions during project life time.

#### **LEARN4SEA activities:**

- Designing and setting up a network of Environmental Information Centres/ EICs connected via web portal and equipped for actions to protect the environment and reduce pollution in the Black Sea Basin.
- Organising measurements of water and air quality parameters for subsequent actions to raise awareness.
- Delivering and piloting an innovative methodology for air and water quality assessment following analysis of data collected.

- Elaborating promotional and innovative educational materials for raised awareness of the target groups.
- Informal training at multiple educational levels.
- Demonstration and raising awareness campaigns for changed behaviour of the citizens in the Black Sea Basin regions.
- Setting a mechanism for cooperation between authorities to generate initiatives and regulations for better protected environment and reduced pollution.

### **Project Results:**

- ***One innovative methodology for environment specialists*** will be jointly developed by project partners to be taken up by advisory boards of local/ regional authorities when they generate local initiatives for reduced pollution. The methodology will be based on the analysis of air and water quality measurements conducted by the consortium to complete the available official data, capitalising on expertise of the partners, the knowledge and lessons learnt and equipment procured in previously EU co-funded projects (Interreg funds) implemented by the project partners.
- ***Environmental Information Centres/ EICs*** will be created as a solution to the lack of an informal educational digital platform in the Black Sea Basin regions. Its database will not only make available all information and materials developed in the project, but will be used to display real-time data collected from sensors placed in different locations in the 4 participating countries.  
One such physical centre will be located in each partner organisation based on a concept developed in GREEN DANUBE project implemented by two of the partners in the current consortium, and adapted to the real needs in the territories.
- ***Guidelines for setting up a cooperation mechanism*** as a solution for the gap between the decision makers and the real communities, including examples of best practices and local initiatives for environment protection and reduced pollution. A series of demonstrations and raising awareness actions will be rolled out by all project partners using innovative (Virtual Reality) training materials as well as customized information, materials jointly developed to efficiently reach different levels of the general public (children, youth, adults), professionals and decision makers in the environmental field.

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## **ROBORIVER - Innovative underwater robotics for monitoring and protection of Danube river pollution**

**Funding programme:** Danube Region Programme 2021 – 2027

**Call:** Seed Money Facility (SMF)

**Priority Area 4:** A better cooperation governance in the Danube Region

**Specific Objective 4.1:** Support for the governance of the EUSDR

**Project duration:** 12 months (1 September 2024 – 31 August 2025)

### **Partners:**

1. University of Zagreb Faculty of Transport and Traffic Sciences FPZ (HR) – Lead Partner
2. Romanian Maritime Training Centre - CERONAV (RO)
3. University of Montenegro, Faculty of Maritime Studies Kotor UoM (ME)

**Project budget:** EUR 62,500.00

**Interreg (EU) Funds:** EUR 50,000.00

The Seed Money Facility (SMF) is an instrument to kick-start the development of strategic projects and large-scale initiatives for the EU Strategy for the Danube Region (EU Strategy for the Danube Region (EUDISDR)). These strategic projects can subsequently apply for funding through other funding instruments. The development phase funded by the SMF covers the analysis of the needs and challenges addressed by the main project, the preparation of the work plan, the establishment of the partnership as well as the analysis of possible funding instruments for it.

In the framework of ROBORIVER, CERONAV will coordinate Activities 1.2, 3.1, 3.2. and *Output 3 - Report on funding possibilities*, and will be involved within the limits of its expertise in the realization of the other project activities, including hosting a project meeting.

The structure of the project will be based on 3 predefined outputs:

- 1. Report on the state of play of innovative pollution monitoring and protection of Danube River**
  - State of play on the current innovative technologies' deployment for monitoring of Danube River pollution and gap analysis;
  - Mapping target groups of the main project – activity coordinated by CERONAV.

Mapping of target groups will be performed coherent and consistent to main project objectives, regional context, and planned resources (human, financial) in a manner that potential target groups will be listed and assessed.

**2. Main project work plan**, comprising of:

- work plan describing related activities, outputs, and foreseen results;
- planning potential project partnership;
- indicative budget plan.

**3. Report on funding possibilities – coordinated by CERONAV**

- analysis of funding sources for the main project;
- road map of steps to be taken after finalisation of the seed money project

Context of ROBORIVER main project:

The Danube faces many pressures, including pollution from industrial chemicals, pesticides, nutrients and pharmaceuticals, as well as climate change. Keeping the Danube River clean is a common European concern and a huge challenge, given the number of tributaries and emerging substances that are discharged into the Danube River.

The status of the water bodies in the Danube River Basin is largely influenced by the input of pollutants caused by human and natural activities - in particular organic matter, nutrients, hazardous substances and plastics (i.e., accumulation and transportation of (macro) plastic waste along and in surface waters and contamination of waters with plastic micro-particles).

Of the emerging substances polluting water, plastics are the most diverse, being used in all sectors, which create problems in terms of plastic waste and its disposal in and along the Danube.

ROBORIVER, as the kick-off project of the main project, will focus on the development and deployment of innovative underwater robots for Danube pollution monitoring and environmental protection.

The main planned objective is the development of innovative underwater robotics for Danube pollution monitoring and protection of the Danube environment.

Expected results:

1. Construction and development of innovative underwater robots;
  2. Newly developed training program for specific innovative skills.
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## **1 System 4 IWT learning: upskilling pathways – 2022-1-NL01-KA220-VET-000088164**

<https://www.1s4iwt.eu/>

<https://www.linkedin.com/company/iwtcompeting/>

<https://www.iwt-competencies.eu/>

**Funding programme:** Erasmus+

**Type of Action:** Key Action 2 (KA2)

**Call:** Partnerships for cooperation (KA220-VET)

**Coordinator:** STC Group – Netherlands

### **Partners:**

- CERONAV – CER, Romania
- University of Craiova – UoC, Romania
- University of Applied Sciences – FHOO, Austria
- Harlingen Maritime Academy – MAH, Netherlands
- University of Zilina – UoZ, Slovakia
- Schiffer-Berufskolleg RHEIN – SBKR, Germany

### **Associated Partner from Romania:**

- Ministry of Transport and Infrastructure - MTI

**Project duration:** 23 months (01.10.2022 – 31.01.2025)

**Project budget:** EUR 465,815.00, of which EUR 400,000.00 euros of funding from the EU

**CERONAV budget:** EUR 36,720.00, of which EUR 29,207.00 funds from the EU and at least EUR 7,513.00 co-financing from CERONAV's own funds.

The project is a continuation of the COMPETING project, implemented between January 2019 and June 2022 by the partners in the current consortium and supports the cooperation of education and training institutions in the inland navigation sector, addressing the participation of companies in the sector, the creation of new programs or courses, innovations, digital content, technologies and practices.

1System 4IWT aims to build a learning system as a solution for the provision and sustainability of education and training for students and staff in the inland navigation sector and to generate a "personalised learning experience". In addition, the project will focus on the development of shared resources that respond to staff needs and current trends in the sector.

The project will design the system architecture to interconnect e-learning platforms of education and training institutions with the Inland Navigation e-Learning System (INeS), which has been developed in previous EU-funded projects, to exchange and share digital learning materials and to provide personalized information about learning progress by individual users and those in organized educational environments in the form of certificates or micro-credentials using open standards.

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## **ERASMUS accreditation 2021-1-RO01-KA120-VET-000047562**

<https://erasmus-plus.ec.europa.eu/projects/search/details/2021-1-RO01-KA120-VET-000047562>

**Funding programme:** Erasmus+

**Key Action 1 (KA1):** National call for accreditation in the fields of school education, adult education and VET (KA120)

**Beneficiary:** CERONAV

**Validity:** 01.02.2022 – 31.12.2027 (6 years)

Erasmus accreditation is a tool for organizations in the field of vocational education and training, school education and adult education that want to initiate cross-border exchange and cooperation activities. The award of Erasmus accreditation confirms that the applicant has developed a plan to implement high-quality mobility activities as part of a wider effort to develop their organisation.

CERONAV can annually organize mobility projects, through which expert consultants and trainees involved in the qualification programs (Maritime Sailor, River Sailor and Motorist) can participate in training courses, respectively practical training courses organized abroad.

The following benefits are expected:

- developing and strengthening the institutional capacity through the personal and professional development of CERONAV's expert consultants and through internationalization;
  - the identification and adoption of new and innovative pedagogical methods and technologies that lead to the improvement of the quality of the educational process as a whole, by disseminating this knowledge and good practices by the staff on mobility to colleagues;
  - concluding partnerships with Romanian and European educational organizations in the naval sector;
  - the development of long-term cooperative relations with the previously mentioned organizations that can lead to future projects;
  - increasing the visibility of CERONAV by approaching for the first time the Key Action 1 within the Erasmus+ Program.
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### **Mobility project 2023-1-RO01-KA121-VET-000127366**

<https://erasmus-plus.ec.europa.eu/projects/search/details/2023-1-RO01-KA121-VET-000127366>

The National Call for Project Proposals 2023, Key Action 1

**Beneficiary:** CERONAV

**Project duration:** June 1, 2023 – May 31, 2025 (24 months)

Budget: EUR 66,237.00

### **Mobility project 2024-1-RO01-KA121-VET-000204142**

<https://erasmus-plus.ec.europa.eu/projects/search/details/2024-1-RO01-KA121-VET-000204142>

The National Call for Project Proposals 2024, Key Action 1

**Beneficiary:** CERONAV

**Project duration:** 1 June 2024 – 31 August 2025 (15 months)

Budget: 64.060,00 euro

Through these projects, in the period 2023 - 2025, mobility activities will be carried out for CERONAV experts/ trainers and trainees involved in the Qualification Programmes organized within the centre, with the aim of providing participants with individual learning opportunities and supporting internationalization and institutional development of CERONAV.



**DERIN – Digital Education Readiness in Maritime and Inland Navigation – 2020-1-RO01-KA226-VET-095726**

<https://erasmus-plus.ec.europa.eu/projects/search/details/2020-1-RO01-KA226-VET-095726>

<https://www.derinnet.eu/>

<https://www.linkedin.com/showcase/derin-network>

**Funding programme:** Erasmus+

**Action Type:** Key Action 2 (KA2)

**Call:** Strategic partnerships in response to the situation caused by the COVID-19 pandemic\_KA226

**Coordinator:** CERONAV – Romania

**Partners:**

- Faculty of Transport and Traffic Sciences – UNIZG, Croatia
- Technical University of Varna – MQC-TUV, Bulgaria
- STC Group – STC, Netherlands
- Latvian Maritime Academy – LMA, Latvia
- Estonian Nautical School – ENS, Estonia

**Associated Partners:**

- Volga State University of Water Transport – VSUWT, Russia
- Kongsberg Digital As, Maritime Simulation – Norway
- Wärttilä Voyage – Ireland

**Project duration:** 24 months (01.03.2021 – 28.02.2023)

**Total project budget approved by the Romanian National Agency:** EUR 179,995.00



**CERONAV budget:** EUR 42,725.00 plus EUR 8,545.00 co-financing from own funds

General objective: improving institutional capacities and multi-level transnational cooperation of vocational education and training (VET) institutions and key actors for educational achievements and recognition of qualification levels within and across national borders, to ensure access to digital tools and technologies for every student/learner and teacher/trainer. This general objective was achieved through 3 specific objectives and the development of the intellectual products of the project.

The EU co-funded partnership consisted of a VET school, three maritime and inland waterways training centres (either on their own or as part of maritime technical academies/universities), a globally operating education and research institution, and a higher education institution.

Aiming to improve the capacity and efficiency of vocational education and training institutions to provide digital training, the 6 partners from as many EU countries (Romania, Bulgaria, Croatia, the Netherlands, Latvia, and Estonia) decided to work together to enhance the digital training and assessment of shipping personnel by increasing the digital skills of teachers/trainers and identifying current needs and challenges in their ability to deliver digital education. The common solution was to develop tools and adapt appropriate digital solutions with the support of technology providers as associated partners and stakeholders.

By more effectively adopting digital technologies for teaching and learning in a consolidated manner across the EU, high-quality outcomes of the educational process were maintained, even when the traditional "classroom" environment could not be used 100% of the time. Since the theoretical part of the training was almost completely available in digital format, the DERIN project focused on the practical training, with the aim of moving at least a certain percentage of it to the digital environment.

Partners selected relevant learning modules adaptable to innovative multimedia tools, applications, and resources. They tested and familiarized themselves with these tools using Augmented Reality and Virtual Reality smart glasses, user-friendly video cameras, and specialized software and applications for producing such materials. They then developed appropriate multimedia learning materials (curriculum, teaching methods, procedures, role-play scenarios, videos, etc.) as a toolkit for practical training, including a trainer's guide. For relevant results, didactic training activities hosted by partners in Bulgaria and Latvia were carried out.

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## **RELAR – REMOTE Learning and examination based on AR- 2020-1-NL01- KA226-VET-083043**

<https://relar.eu/>

[https://erasmus-plus.ec.europa.eu/projects/eplus-project-details#project/2020-1-NL01-  
KA226-VET-083043](https://erasmus-plus.ec.europa.eu/projects/eplus-project-details#project/2020-1-NL01-<br/>KA226-VET-083043)

[https://stc-group.nl/projects/relar-remote-learning-system-based-on-ar-in-maritime-vet-  
education/](https://stc-group.nl/projects/relar-remote-learning-system-based-on-ar-in-maritime-vet-<br/>education/)

**Funding programme:** Erasmus+

**Action Type:** Key Action 2 (KA2)

**Call:** Strategic partnerships in response to the situation caused by the COVID-19 pandemic\_KA226

**Initiator:** STC Group – Netherlands

**CERONAV role:** Partner

**Partners:**

- CERONAV, Romania
- Satakunta University of Applied Sciences – SAMK, Finland
- Malta College of Arts, Science & Technology – MCAST, Malta
- Šolski center Nova Gorica – Slovenia
- University of La Laguna – ULL, Spain
- University of the AEGEAN – UAEGEAN, Greece

**Associate Partners:**

- Romanian Naval Authority – ANR, Romania
- Knowledge Concepts – The Netherlands
- KOTUG International – Netherlands
- WinNova – Finland
- ONEX Syros Shipyards SA – Greece
- Creative Solutions – Slovenia

**Project duration:** 24 months (01.05.2021 – 30.04.2023)

**Total project budget:** EUR 299,997.00

**CERONAV budget:** EUR 30,990.00 plus EUR 6,198.00 co-financing from own funds

The RELAR project aimed to create a crisis-resilient maritime education and training (VET) ecosystem, enabling remote learning and examination using Augmented Reality (AR). It addressed the key challenges of maritime and port education caused by structural changes due to new digital technologies and focused on the adoption of augmented reality tools to improve learning outcomes.

RELAR was implemented by a consortium of European vocational education and training organizations and higher education institutions and addressed all the deficiencies discovered with the COVID-19 pandemic, focused on the transfer of expertise and knowledge of industrial organizations in improving security, safety and efficiency by supporting frontline workers through technology. The maritime VET educational ecosystem must become more crisis-resistant and improve the ability to adapt to forced changes imposed by force majeure situations. Being closely linked to other ecosystems that have a major role in the economy and society as a whole (port ecosystem, national, European and international educational ecosystem), maritime education must be able to absorb social shocks generated by crisis situations and ensure continuity the learning process.

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## **Mobility project 2022-1-RO01-KA121-VET-000064245**

<https://erasmus-plus.ec.europa.eu/projects/search/details/2022-1-RO01-KA121-VET-000064245>

### **The National Call for Project Proposals 2022, Key Action 1**

**Beneficiary:** CERONAV

**Project duration:** June 1, 2022 – August 31, 2023 (15 months)

**Budget:** EUR 65,185.00

Through this project, in the period 2022-2023, mobility activities were carried out for 14 CERONAV employees and 14 trainees involved in the Qualification Programmes organized within the centre that provided participants with individual learning opportunities and supported internationalization and institutional development of CERONAV.

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## **COMPETING – Competence Based Education and Training for Inland Navigation – 601165–EPP-1-2018-1-NL-EPPKA2-SSA**

<https://www.iwt-competencies.eu/>

<https://erasmus-plus.ec.europa.eu/projects/eplus-project-details#project/601165-EPP-1-2018-1-NL-EPPKA2-SSA>

**Funding programme:** Erasmus +

**Action Type:** Key Action 2 (KA2) Sector Skills Alliances

**Initiator:** STC Group – Netherlands

**Partners:** 15 partners from 8 countries (Netherlands, France, Germany, Belgium, Austria, Slovakia, Croatia and Romania)

**Project duration:** 36 months (January 2019 – December 2021) + extension until June 2022

**Project budget:** EUR 938,570.00

**CERONAV budget:** EUR 54,181.00

In this project, for the first time, all key players cooperated at the European level to develop a widely recognized and modern European curriculum for inland waterway transport. We worked together with education and training institutions in this field, social partners representing the industry, competent authorities, and umbrella organizations.

This project had the ultimate goal of implementing EU legislation through a comparable system for the recognition of educational programs and qualified crews who would hold a Union certificate.

COMPETING paved the way for the introduction of future skills-based education and training for inland waterway crew members throughout the European Union. Future certificates were intended to be recognized across Europe. Sustainable solutions, automation, digitization, and communication at the European level were integrated into the education and training programs. The primary objective of the project was to increase labour mobility in the inland waterway transport sector.

The COMPETING consortium consisted of various stakeholders. First, inland navigation education and training institutions, which needed to modify their

course programs to align with competence-based education and training recognized at the European level. Second, social partners (employers and unions) representing the industry and crew members and lastly, competent authorities, umbrella organizations, and members of the Advisory Committee.

CERONAV coordinated work package 3, where the following activities were carried out, according to the work plan:

- collected the most relevant results from completed or ongoing European projects related to didactic materials for the professional training of inland navigation personnel.
- developed a framework structure for educational programs and course textbooks.
- developed 14 course manuals, 7 for the educational program aimed at operational-level staff and 7 for the managerial-level staff, based on the requirements of the CESNI Competence Standards.
- developed a framework structure for the European Training Record Book. The final version of this document was sent to CESNI to be included in the work plan as an optional standard for inland waterway transport.

The final versions of ETRB-ML and ETRB-OL were sent to CESNI.

- organized online training sessions for trainers to teach techniques based on course manuals and training modules in e-learning format.

The first trainer training session took place in April 2021—Communication at the Managerial Level. CERONAV, through its project experts, organized and coordinated the 5-day session, which was held both offline and online.

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## **GRENDEL – Green and Efficient Danube Fleet**

<http://www.interreg-danube.eu/approved-projects/grendel>

**Funding programme:** Danube Transnational Programme

**Priority Area 3:** Connectivity in the Danube Region

**Specific Objective 3.1:** Support ecological and safe transport systems and equal accessibility of rural and urban areas

**Coordinator:** Pro Danube International, Austria

**CERONAV Role:** Partner

**Partners:** 13 organizations from 8 countries and 13 other associated partners (Austria, Germany, Hungary, Bulgaria, Romania, Serbia, Croatia and Slovakia)

**Project duration:** 30 months (June 2018 – November 2020)

**Project budget:** EUR 1,824,999.20 (85% ERDF/IPA funding, 13% national funding and 2% own co-financing)

**CERONAV budget:** EUR 83,400.00

The long lifetime of inland navigation vessels, the high investment costs, the reduced reinvestment capacity of the Danube fleet operators, together with the lack of knowledge about the existing ecological technologies and the lack of public actions and incentives impose severe barriers for the adaptation of the Danube river fleet to the future European environmental policy objectives and inland navigation.

The GRENDEL project provided support to the operators of the Danube fleet and their public counterparts in the process of ecological and economic modernization of the sector and in the definition and implementation of the necessary transitional measures. Activities specially designed for this purpose have increased the awareness of operators and the Danube fleet sector on the impact of new regulations, advanced technologies that reduce atmospheric pollutants and energy consumption of inland vessels, as well as on the improvement of transport and logistics management processes that uses digitization.

Both the general objective and the specific objectives were achieved through: intensive international collaboration between public and private stakeholders in know-how transfer activities for the strategy and actions of the modernization of the Danube fleet; developing innovative technical ship concepts and improved transport and logistics management processes of fleet operators and disseminating them as best practices, aiming at strengthening the competitive position of inland navigation; development of the State aid scheme model and

innovative financial instruments as a guideline for the Danube riparian countries with the aim of developing national state aid schemes for the modernization of the fleet according to the needs, requirements and administrative conditions specific to each country (taking into account the priorities for green technologies and potential investment volumes).

A report was also developed that provides a comprehensive picture of human resources skills in the inland waterways sector as well as training and training requirements and their adaptation to new technologies in the field. The aspects of fleet modernization addressed by GRENDEL were: the use of alternative and low-carbon fuels, the reduction of air pollutant emissions (CO<sub>2</sub>, NO<sub>x</sub>, suspended dust), total energy consumption and transport and logistics management processes to ensure a better integration of Danube transport in logistics chains through new services (including river information services – RIS), the provision of digital data, as well as dedicated tools to improve the efficiency of fleet operations.

The project officially ended on November 30, 2020.

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## **Innovative SKILLS – Efficient and sustainable Danube navigation based on forward looking competencies**

### [Innovative Skills](#)

**Funding programme:** Danube Transnational Program – Seed Money Facility

**Priority Area 4:** Good governance in the Danube region

**Specific Objective 4.2:** Support SUERD governance and implementation

**CERONAV role:** Project Coordinator (Lead Partner)

**Partner:** FPZ – Faculty of Transport and Traffic Sciences, Croatia

**Project duration:** 12 months (September 2018 – August 2019)

**Project budget:** EUR 50,000.00 (85% ERDF funding, 13% national funding and 2% own co-financing)

**CERONAV budget:** EUR 29,500.00

Essentially, in line with the programme's objectives, the Innovative SKILLS project prepared a larger project proposal to find the best transnational solutions to bridge the gap between current and future labour market needs and education and training institutions that prepare future employees in the inland water sector.



The project tried to solve the shortage of qualified personnel by aligning skills to current and future labour market requirements and promote entrepreneurial spirit for Danube navigation businesses among young people and adults.

Continuing the objectives set in the Danube SKILLS project and starting from the challenges identified by the EC Social Agenda in the field of transport, the project sought to provide solutions to ensure that inland navigation becomes a more attractive sector, especially for young people, to rejuvenate the staff, in large proportion with ages over 50 years.

CERONAV participated in all the activities of the project, respectively:

- Administrative work package;
  - Technical package 1 which resulted in a report on the supply and demand situation of forward-looking innovative skills in the inland navigation sector. The package included the following activities:
    1. Study on the offer of qualification courses and professional training in the river transport sector in the countries of the Danube river basin;
    2. Study of the current and future requirements of a truly integrated transport system in line with technological progress. This study will also identify the requirements of current European policies, as well as the ability and willingness of different segments of the inland water industry to adopt the requirements of EU policies and initiatives;
    3. Analysis of the differences between the two sides, demand and supply, which will be based on the information collected in the previous activities.
  - The technical package 2 whose result was the work plan of the future project and consisted of the following activities:
    1. Structure of the proposal for the future project;
    2. The work plan for the future project;
    3. The budget plan for the future project
  - Technical package 3, the result of which was a report on future financial instruments, with the following activities:
    1. Analysis of funding sources;
    2. Establishing the steps to follow after the completion of the Seed Money project
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## **Danube SKILLS – Increased institutional capacity in Danube navigation by boosting joint transnational competencies and skills in education and public development services**

<http://www.interreg-danube.eu/approved-projects/danube-skills>

**Funding programme:** Danube Transnational Programme

**Priority Area 4:** Good governance in the Danube region

**Specific Objective 4.1:** Improving the institutional capacity to respond to social challenges

**CERONAV role:** Project Coordinator (Lead Partner)

**Partners :** 22 organizations – 15 partners from Germany, Austria, Slovakia, Hungary, Bulgaria, Croatia, Serbia and Romania and 7 associated partners – Rhine Commission (CCNR), Danube Commission (DC), Sava Commission, Czech Ministry of Transport, European Federation of Transport Workers, EDINNA Association, German Inland Water and Waterways Association.

**Project duration:** 30 months (January 2017 – June 2019)

**Project budget:** EUR 2,023,100.00

**CERONAV budget:** EUR 467,000.00

The project had two main objectives:

1. The capitalization of the results of the previous projects, NELI and HINT, implemented by CERONAV as Lead Partner on the Transnational Cooperation Program for South-East Europe and the continuation of the process of harmonizing the education system in the inland navigation sector initiated by the recognition of the seaman qualification course obtained in HINT.

The project supported the implementation in the Danube region of the new European Directive on the recognition of qualifications in the inland navigation sector, a directive that established the new European standards for education, training and certification in river transport through:

- the organization of information and dissemination workshops of the Directive in the 7 countries;
- the development of two model courses;
- the organization of pilot actions for testing the two courses;
- the elaboration of a study regarding the situation at that time of the education and training system in the field in the Danube region and the obstacles identified in the adoption of European standards;

- the elaboration and validation with the help of the specialized Commissions (CCNR and DC) and under the guidance of the European Commission of a medium and long-term transnational strategy regarding the implementation of the new European Directive on the recognition of qualifications in the inland navigation sector in the Danube region.

2. Updating and developing information, tools and modern logistic services in order to integrate navigation on the Danube in modern transport solutions that lead to cost reduction and negative impact on the environment.

The project officially ended on June 30, 2019.

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## **GREEN DANUBE – Integrated transnational policies and practical solutions for an environmentally-friendly IWT system in the Danube region**

<http://www.interreg-danube.eu/approved-projects/green-danube>

Project summary at the end (the story) –

<http://www.interreg-danube.eu/approved-projects/green-danube/section/our-story>

**Funding programme:** Danube Transnational Programme

**Priority Area 3:** Connectivity in the Danube region

**Specific Objective 3.1:** Support ecological and safe transport systems and equal accessibility of rural and urban areas

**CERONAV role:** Project Coordinator (Lead Partner)

**Partners:** 10 partners from 7 countries (Romania, Austria, Hungary, Germany, Croatia, Serbia and Bulgaria) and 6 associated partners (Romania, Bulgaria, Hungary and Serbia)

**Project duration:** 30 months (January 2017 – June 2019)

**Project budget:** EUR 1,586,244.00

**CERONAV budget:** EUR 457,244.00

The transport sector is recognized as a major contributor to air pollutant emissions, therefore supporting environmentally friendly modes of transport such as inland waterway transport is a priority in the Danube region. However, even IWT emissions need to be minimized and hence efforts are being made in this

direction. In addition, the huge discrepancy between transport on the Rhine and the Danube called for a common transnational approach and a better exploitation of the potential of the Danube through multimodality and increased fleet modernization.

The GREEN DANUBE project aimed at strengthening both institutional and individual capacity through active involvement in reducing pollutant emissions along the Danube. The objectives were achieved through: emissions measurements, cooperation in the Danube sector, which was enhanced by evaluating green technologies and best practices, by creating a database that includes all of these, and by providing a strategy for the greening of transport on Danube and a political agenda in support of EU legislation. In addition, three fixed Environmental Information Centres were developed in as many countries, and a mobile centre covered the other four partner countries in a campaign to raise public awareness of the issue. A strategy was also developed for transnational cooperation between the EIC, international organizations and associations and to contribute to sustainable inland water transport.

Individual capacity was enhanced through learning interactions organized throughout the project, from one-on-one meetings to national workshops, pilot actions and international events that created long-lasting patterns of cooperation. Hundreds of people from dozens of organizations were directly involved in the activities and results of this project: project partners, associated strategic partners, stakeholders and event participants, in addition to national and international organizations who were regularly informed about the progress the project.

The project officially ended on June 30, 2019.

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## **IWTCOMP – Competency Based Inland Waterway Transport Education & Training**

[https://www.ceronav.ro/wp-content/uploads/2016/07/STCG\\_17281\\_leaflet\\_IWTCOMP\\_HR\\_DWD.pdf](https://www.ceronav.ro/wp-content/uploads/2016/07/STCG_17281_leaflet_IWTCOMP_HR_DWD.pdf)

**Funding programme:** Erasmus+

**Key action KA2:** Cooperation for innovation and exchange of good practices

**Action:** Strategic Partnerships

**Project coordinator:** STC-Group, Netherlands

**CERONAV role:** Partner

**Partners:** 6 partners from 4 countries (Netherlands, Romania, Slovakia and Germany)

**Project duration:** 30 months (September 2016 – February 2019)

**CERONAV budget:** EUR 15,381.00 European funding + EUR 3,845.00 own contribution

The consortium was formed by 6 project partners from 4 countries, namely CERONAV and the University of Craiova, Engineering and Management of Technological Systems (IMST) – Romania; Zilinska Univerzita v Ziline – Slovakia; Schiffer-Berufskolleg RHEIN – Germany; Stichting Dunamare Onderwijsgroep and Maritieme Academie Harlingen – Netherlands.

IWTCOMP trains personnel working in inland waterway transport as well as in training, assessment and examination institutions in the use of the competency-based learning and education method.

STCIN – Training and Certification Standards for Inland Water Transport Personnel will become the standard in inland water education at the European level. STCIN is developed on the basis of competence tables for personnel working on board ships, both at operational and managerial level, and establishes the minimum key competencies for personnel working on board ships navigating inland waters throughout the EU.

The project had the following results:

- a skills table according to the Skills Standard and EQF levels - the European Qualifications Framework;
- a collection of best practices in competency-based education;
- a didactic manual and a train-the-trainer course – training instructors in competency-based education.

This project lays the foundations for European-level education and training in inland waterway transport in the EU, it will ensure that every trainee/candidate will benefit from this method and will be able to work in inland waterway transport in any member state of EU. Candidates will benefit from high quality training provided by highly trained instructors and develop the necessary skills to work in the inland water sector. This will result in higher chances of being employed in this sector.

Also, the trainers trained in the IWTCOMP project (at least 20 trainers) will in turn train other future trainers using the material developed in the project, thus facilitating the introduction of competence-based education and training in all transport education, training and training institutions on inland waters in the EU. To achieve this, IWTCOMP will introduce competencies into the analytical curriculum for inland waterway transport.

In February 2019, the implementation of the project was successfully completed.

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## **HINT – Harmonized Education through Education and Information Technology – (continuation of the NELI project)**

<http://www.hintproject.net/>

**Funding programme:** Transnational Cooperation Program South East Europe (SEE)

**Priority Axis 3** – Improving accessibility

**Intervention Area 2** – Developing strategies to reduce the "digital divide"

**CERONAV role:** Project Coordinator (Lead Partner)

**Partners:** 18 organizations from 8 countries (Austria, Slovakia, Hungary, Bulgaria, Romania, Croatia, Serbia and Ukraine)

**Project duration:** 25 months (December 2012 – December 2014)

**Project budget:** EUR 1,535,688.36

**CERONAV budget:** EUR 411,374.00

The general objective of the project was to promote a harmonized system of training and certification of river navigation personnel through the implementation of common training standards at the European level, the development of a school ship concept for the Danube and simulator concepts for inland navigation and port operations, the development and implementation of a self-assessment platform for personnel involved in the transport of dangerous goods, the creation of a cooperation network between educational institutions, social partners and the private sector in the field of navigation and inland water transport and the organization of pilot actions to promote trades and places of work in this sector.

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## **TTIET – Train the Trainer course material for Inland Navigation Education and Training**

**Funding programme:** Leonardo da Vinci, Innovation Transfer

**Project coordinator:** Stichting STC-Group, Rotterdam, Netherlands

**CERONAV role:** Partner

**Partners:** 7 organizations from 4 countries (Netherlands, Germany, Belgium and Romania)

**Project duration:** 30 months (October 2013 – March 2016)

**Project budget:** EUR 279,417.00

**CERONAV budget:** EUR 23,745.00

The project aimed to develop a course on the use of simulators for the training and assessment of inland navigation personnel. All the partners in this project are members of the EDINNA – Education in Inland Navigation association, an organization comprising 28 education and training centres on inland waterway transport from 15 European countries. The EDINNA Association recognizes that all members use the same system of waterways but using different educational systems, which is why it aims to develop a harmonized system of education, training and certification of personnel on inland waterways, in order to ensure a high quality of personnel trained on board ships, thus raising the level of safety on all waterways, as well as the mobility of personnel within the sector in the European Union.

The project analysed in depth how the implementation of training, certification and service (STCW) standards is carried out in the maritime sector, through the didactic use of simulators. It was analysed in what form this approach is possible for the inland navigation sector and a methodology was developed for the development of a teaching manual, including a training course, aimed at the implementation of the standards of training and certification of inland navigation personnel (STCIN).

The project was successfully completed on March 31, 2016.

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## **PLATINA II – Platform for the Implementation of NAIADES**

**(follow-up of PLATINA project)**

<https://navigation.danube-region.eu/platina-ii-platform-for-the-implementation-of-naiades/>

<https://www.ceronav.ro/wp-content/uploads/2016/07/PLATINA-II.pdf>

**Funding programme:** Framework Program 7 for Research and Technological Development, Call FP7 Transport 2012-MOVE-1

**Project coordinator:** via donau, Austria

**CERONAV Role:** Partner

**Partners:** 12 organizations from 7 countries (Austria, Germany, France, Belgium, Holland, Croatia and Romania)

**Duration:** 35 months (April 2013 – February 2016)

**Project budget:** EUR 1,999,995.00

**CERONAV budget:** EUR 51,935.00

The main objective of the project is to support the European Commission, EU Member States and neighbouring countries in the implementation of the NAIADES action program, CERONAV being involved in the Trades and Competencies work package dedicated to the harmonization of education standards in the field of navigation and logistics on inland waters.

PLATINA II is based on the results of the PLATINA project (2008 – 2012) and aims to implement the five action areas of the NAIADES I program, namely markets, fleet, trades and skills, image, infrastructure.

Respecting the recommendations of the White Paper regarding the market position and increasing the performance of the inland navigation sector, PLATINA II will develop multidisciplinary knowledge and expand the action base of the previous PLATINA I project, by bringing together the main stakeholders from politics, industry, research and the sector of inland navigation.

PLATINA II, in close cooperation with the European Commission, will establish a plan for the implementation of the actions selected during the project and the support of permanent actions.

CERONAV participated in the implementation of the following activities from work package 3, Trades and Competences:

- Development of technical standards for the use of practical training simulators for seafaring personnel in the inland waterways sector;
- Elaboration of a standard electronic book with the experience of embarkation on the ship;
- Promotion of inland waterway transport in the field of logistics education.

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## **LNG Masterplan Rhine-Main-Danube**

<http://www.lngmasterplan.eu/index.html>

**Funding programme:** TEN-T (Trans European Transport Network)

**Project coordinator:** Pro Danube Management GmbH, Austria

**CERONAV role:** Partner

**Partners:** 33 partners from 12 European countries (Austria, Holland, Romania, Bulgaria, Belgium, Czech Republic, Germany, France, Luxembourg, Slovakia, Italy, Cyprus) including 5 partners from Romania



**Project duration:** 36 months (January 2013 – December 2015)

**Project budget:** EUR 80,520,000.00

**CERONAV budget:** EUR 190,400.00

The LNG Masterplan aimed to create a legislative and logistical framework for the use of liquefied natural gas as an ecological and efficient fuel on the Main-Rhine-Danube axis.

This project made an important contribution to initiating the implementation of LNG in the inland navigation sector and represented a joint effort of sea and river ports, authorities, barge operators, technology and energy suppliers in removing market barriers and achieving of an LNG supply chain on the Rhine-Main-Danube axis.

The project paved the way for the large-scale use of liquefied natural gas as a commodity and fuel, being metaphorically presented as Europe's first LNG artery.

The project had 6 activities: Framework and Market Analysis, Technological and Operational Concepts, Solutions for Ships and Terminals, Regulatory Framework, Construction of Ships and Terminals and Project Management. Feasibility studies, technical concepts were drawn up, tests were carried out and LNG ships and terminals were built that were integrated into the regulatory processes of the authorities, reports and technical assessments were drawn up, working groups and tables were organized round. The LNG Masterplan developed a comprehensive strategy for the implementation of LNG as cargo and fuel on the Main – Rhine – Danube axis as well as guidelines and recommendations.

CERONAV was mainly involved in the sub-activity called Education Requirements, within which analytical programs and lesson plans were developed for several categories of staff to ensure full coverage of the logistics chain involving the use and transport of LNG, respectively:

1. Crew members in inland waterways – use of LNG as cargo and fuel
2. Terminal staff
3. The personnel from the bunkering stations
4. Executive and management personnel from companies
5. Inspectors from the competent authorities
6. Students from the logistic chain

The final conference of the project organized in Rotterdam between 15 and 16 December 2015 marked the closure of the project and the successful completion of its activities.

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**NELI – Cooperation network for logistics and nautical education focusing on Inland Waterway Transport in the Danube corridor supported by innovative solutions**

<https://navigation.danube-region.eu/neli-cooperation-network-for-logistics-and-nautical-education-focusing-on-inland-waterway-transport-in-the-danube-corridor-supported-by-innovative-solutions-project-example-in-eusdr-action-plan/>

**Funding programme:** Transnational Cooperation Program South East Europe (SEE)

**Priority Axis 3** – Improving accessibility

**Intervention Area 2** – Developing strategies to reduce the "digital divide"

**CERONAV role:** Project Coordinator (Lead Partner)

**Partners:** 15 organizations from 8 countries (Austria, Slovakia, Hungary, Bulgaria, Romania, Croatia, Serbia and Ukraine)

**Project duration:** 36 months (April 2009 – March 2012)

**Project budget:** EUR 2,167,820.00

**CERONAV budget:** EUR 658,213.00

The main objective of the project is to create a favourable framework for transnational cooperation between the countries along the Danube for the purpose of innovation in the field of technology and the implementation of common policies and concrete action plans in the field of navigation on inland waters.

In order to achieve this major objective, the project proposes the following: the creation of a cooperation network between the various organizations in the field of inland water transport in order to facilitate the exchange of information and the realization of joint activities; the development and implementation of eLearning services in the inland navigation sector in order to reduce the existing gaps between the regions of South-East Europe; the design and implementation of information and training centres (in Romania at the CERONAV subunit in Galati and in Austria at Ennschafen); raising public awareness regarding the role and importance of designing and implementing innovative training methods in the field of inland navigation to promote specific activities among young people.

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## **PLATINA**

<https://www.icpdr.org/main/activities-projects/eu-platina-project-platform-implementation-naiades>

**Funding programme:** Framework Program 7 for Research and Technological Development / Coordination and support action

**Project coordinator:** via donau, Austria

**CERONAV Role:** Partner

**Partners:** 22 organizations from 9 European countries (Austria, France, Germany, Belgium, Netherlands, Romania, Croatia, Hungary and Finland)

**Project duration:** 48 months (June 2008 – May 2012)

**Project budget:** EUR 8,350,000.00

**CERONAV budget:** EUR 71,454.60.00

The consortium was formed by 22 organizations from 9 European countries (Austria, France, Germany, Belgium, Holland, Romania, Croatia, Hungary, and Finland). PLATINA represents a coordinated action that aims to promote inland water transport. The main objective of the project is to support the European Commission, EU Member States and neighbouring countries in the implementation of the NAIADES action program. PLATINA provides technical and organizational support while ensuring the active participation of key stakeholders.

Organized in accordance with the NAIADES directives, the PLATINA project comprises five work packages for the five policy areas of interest in the field: markets, fleet, trades and skills, image and infrastructure.

Work Package 1 (Markets) raised the level of awareness regarding the opportunities offered by the market in the field of inland waterway transport by identifying best practices, thus contributing to the achievement of an improved administrative framework and by developing an information portal at European level.

Work package 2 (Fleet) was intended to strengthen coordination on research in the field at national and European level.

Work package 3 (Jobs and skills) helped to find a solution to the workforce problem in the inland waterway transport sector at European level by raising awareness, improving employment opportunities and mutual recognition of qualifications.

Work package 4 (Image) aimed to coordinate activities to promote inland waterway transport at European level by expanding the network of existing centres and by preparing a common communication strategy.

Work package 5 (Infrastructure) contributed to the improvement of the multimodal network and support for the implementation of the RIS (River Information Services) system in Europe as a starting point for the improvement of commercial services offered by inland waterway navigation.

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## **EWITA – European web platforms and training concepts for intermodal inland waterway transport**

[http://www.ria.org.ro/ria/file/EWITA\\_Newsletter%20No1%20June%202009.pdf](http://www.ria.org.ro/ria/file/EWITA_Newsletter%20No1%20June%202009.pdf)

**Funding programme:** Marco Polo II – Call 2007/ Common Learning Action

**CERONAV role:** Partner

**Project duration:** 24 months (June 2008 – June 2010)

**Main objective:** Updating the INeS e-learning platform and implementing a new e-learning platform for the Rhine-Maas-Schelde corridor.

EWITA platforms combined European content with specific regional or national content. To facilitate updating and synchronisation, a pan-European content repository was designed to allow easy management of common learning objects available for different subjects. EWITA innovations also included the design of learning groups for the intended users of the platforms, additional multimedia elements and modern learning technologies (e.g. animations, interactive elements, streaming video and audio).

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## **MARENG PLUS – Maritime English Learning Tools**

**(continuation of the MarEng project)**

[https://www.up2europe.eu/european/projects/maritime-english-learning-tool-mareng-plus\\_119834.html](https://www.up2europe.eu/european/projects/maritime-english-learning-tool-mareng-plus_119834.html)

**Funding programme:** Leonardo da Vinci 2008 / Innovation transfer

**CERONAV role:** Zero partner

**Project duration:** 24 months (October 2008 – September 2010)

**The main objective:** MarEng Plus had as its main objective the expansion of the online maritime English language learning tool MarEng, a tool developed within

the original MarEng project, a transnational project funded by the Leonardo da Vinci Program and completed in 2007.

In its first year of existence, the learning tool has been widely used by various user groups (e.g. students and maritime workers) around the world. However, based on the feedback received, the tool lacked relevant content. In recent years, there has been an increasing interest in safety and environmental issues around the world, and the same is true for the maritime industry. Therefore, the MarEng Plus project was created to create new materials on the topics of the marine environment and maritime security. Feedback also revealed that lower English learners needed an elementary level, as the original MarEng learning tool only consisted of intermediate and advanced levels.

Teachers using the MarEng tool felt that their teaching process could be made more efficient by creating a teacher's manual. Therefore, the creation of an elementary level and a teacher's manual were part of the MarEng Plus project.

As maritime workers in particular are highly mobile, it was also appropriate to find solutions to transfer the MarEng learning tool to the mobile learning environment. Therefore, the project also included the transfer of the MarEng maritime glossary into a form that can be used in a mobile phone, even if the phone is not connected to a satellite.

All project activities were carried out by a group of partners representing several European Union countries, most of the partners being the same as in the previous MarEng project. The extensive experience of the partners in the shipping industry and the teaching of maritime English were a solid foundation for the success of the project. The MarEng Plus project team envisioned a strong and broad impact through the continued dissemination of the MarEng learning tool around the world to all types of users. As a result of the MarEng Plus project, the MarEng learning tool was transferred to new user groups and geographies. Dissemination work is further carried out by the partner team.

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## **PHARE 2005 – Safety in intermodal transport through continuing professional training**

**Funding programme:** PHARE 2005

**CERONAV's role:** Applicant and main beneficiary

**Project duration:** 12 months (January 3, 2008 – December 31, 2008)

**Partnership:** 2 partners (CERONAV and the National Center for the Promotion of Intermodal Transport - CNPTI) - Romania

**Main objective:** Development and delivery of professional specialization courses, considering the design and delivery of a package of courses in the

areas of: transport and handling of dangerous goods by water and land and mooring and distribution of goods in containers for their safe transport.

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### **CAPRICO – Quality and productivity through continuous training**

<https://www.romanian-ports.ro/caprico/uploads/files/Obiectivul%20specific.pdf>

**Funding programme:** PHARE 2005

**CERONAV role:** Partner

**Project duration:** 12 months (January 3, 2008 – December 31, 2008)

**Partnership:** 2 organizations (CN APDM SA Galati and CERONAV) – Romania

**Project budget:** EUR 85,692.00

**The main objective:** Supporting the Government of Romania in the implementation of a policy regarding the development of the labour force in order to become more adaptable to structural changes, in the context of the shortage of skills on the labour market, through its training, qualification and continuous requalification, in order to respond as much as possible well to evolving needs. The project also highlights the importance of developing a lifelong learning policy and culture.

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### **PHARE 2002 – Implementation of a training and management system for the inland waterway transport sector**

**Funding programme:** PHARE 2002

**CERONAV role:** Beneficiary

**Project duration:** 12 months (December 2005 – November 2006)

**The Contracting Authority was the Ministry of Finance, the Implementing Authority was the Ministry of Transport. STC Group from the Netherlands was a consultant for this project.**

**The main objective:** Training the training staff within CERONAV and the purchase of equipment and didactic materials.

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## **IL LAVORO NEL PORTO SICURO**

<https://www.port.venice.it/it/il-lavoro-nel-porto-sicuro.html>

<https://www.port.venice.it/files/page/sintesiprogettoerweb.pdf>

**Funding programme:** POR 2007-2013 Venice Region

**CERONAV role:** Beneficiary

Together with two other partners from Italy, Consorzio Formazione Logistica Intermodale – the project coordinator and INTEMPO SPA – regional partner, CERONAV was involved in the externally funded project "Il lavoro nel porto sicuro", a project financed by the European Social Fund which aimed at the following objectives:

- Knowledge at the transnational level of effective ways to facilitate continuous professional training of human resources working in ports or on board ships, so as to get an overview of the situation.
- Comparison of the national and transnational level in terms of ways of continuing professional training of human resources working in ports or on board ships.
- Establishing a transnational network for the continuous exchange of practices and procedures in the field of professional training and continuing professional training of human resources.
- Establishing the level of capacity and experience of partners in the field of workplace safety of port and maritime workers.