



Cooperation-Network for logistics and nautical education focusing on  
Inland Waterway Transport in the Danube corridor  
supported by innovative solutions

# Supporting EU and National Policies

## Draft National Action Plan for Education and Training Issues in the Field of Inland Waterway Transport CROATIA

(Act. 3.4, Period 4)

Document ID:	NELI_DNAP_Croatia	
Act.:	WP3, Act. 3.4	
Author / Project Partner:	Date:	Version:
Jolić, Pervan /FPZ	14.06.2010	ver. 0.1 (draft)
Jolić, Pervan /FPZ	15.10.2010	ver. 1 (final)

# Table of Contents

1. List of abbreviations.....	3
2. Analysis of relevant policies.....	3
3. SWOT analysis of Croatian education and training situation in the field of inland waterway transport .....	4
4. Measures of the Croatia National Action Plans.....	8
4.1 Measures addressing nautical personnel .....	8
4.2 Measures addressing IWT logistics personnel.....	9
5. Identification of national or regional funding possibilities for Education and Training Measures in Croatia .....	10
5.1 Existing National Funding Programmes.....	10
5.2 Existing National Funding Institutions .....	12
6. Conclusions .....	13
7. Validation of Croatian National Action Plan .....	13

## 1. List of abbreviations

AVET	Agency for Vocational Education and Training
CROQF	Croatian Qualifications Framework
CroRIS	Croatian River Information Services
CRUP	Inland Navigation Development Centre
EU	European Union
FPZ	Faculty of Transport and Traffic Sciences
HBOR	Croatian Bank for Reconstruction and Development
HZZ	Croatian Employment Service
IWT	Inland Waterway Transport
MMPI	Ministry of Sea, Transport and Infrastructure
MZOS	Ministry of Science, Education and Sports
NAIADES	Navigation and Inland Waterway Action and Development in Europe
NAP	National Action Plan
NELI	Cooperation-Network for logistics and nautical education focusing on Inland Waterway Transport in the Danube corridor supported by innovative solutions
RIS	River Information Services

## 2. Analysis of relevant policies

***Strategy for the Development of Inland Waterway Transport in Republic of Croatia (2008 – 2018)*** is a document which describes relevant Croatian policy that includes IWT sector. This document was published by the Croatian Ministry of Sea, Transport and Infrastructure, and was adopted by the Croatian Parliament in June 2008. The Strategy is based on European action plan ‘NAIADES’ and will be the basis for the future supporting programme for the development of the inland navigation. European action plan is integrated in this Strategy in six areas:

1. Security of navigation and protection of environment
2. Market
3. Infrastructure
4. Shipping, employment and education
5. Promotion
6. Administrative efficiency

Strategy points out the need for harmonization of Croatian inland waterways according to the Danube Commission and the EU regulations. Croatia needs to make an effort to harmonize legislations with EU states, taking into account its own

specificities. Only in this way process of adjustment will be successful. Decreased number of occupation in shipping presents a serious problem that might limit prosperity of inland waterways sector. Consequences of this problem will be evident, not only in shipping companies but also in harbours, port authorities, shipyards, water transport agencies etc. Since there are no specialized inland waterways schools in Croatia, this Strategy suggests starting IWT curriculum at maritime schools at Adriatic as a possible solution. Providing scholarships and apprenticeship positions at ships are also required measures that could be realized through, stimulation of river transport development programme.

**Mid-term Inland Waterways and Inland Ports Development Plan (2009 – 2016)** is a national action plan for development of infrastructure of IWT sector in Croatia, based on the *Strategy for the Development of Inland Waterway Transport in Republic of Croatia (2008 – 2018)*. It defines better transport distribution in favour of river transport. This plan is based on infrastructure planning of waterways and harbours. This document is a foundation for making one and three year programmes for organization and technical maintenance of waterways and harbours.

In **Transport Operational Programme 2007 – 2009 (Instrument for Pre-Accession Assistance)**, advantage in financing projects is given to inland waterways and railway sector, with the aim to rehabilitate the Sava river waterway and to coordinate with the EU River Information Systems (RIS).

**Operational Programme for Human Resources Development 2007 – 2009 (Instrument for Pre-Accession Assistance)** points out the need to ensure attractive, accessible and high – quality education and training at all levels, with a focus on forming a strategy for life – long learning. There is a need to develop comprehensive *Croatian Qualifications Framework (CROQF)* which will be compatible with European Qualifications Framework and linked to the needs of labour market.

### 3. SWOT analysis of Croatian education and training situation in the field of inland waterway transport

The main objective is following:

- Provide enough qualified personnel in the field of inland waterway transport – both nautical and logistical

Strengths	Weaknesses
1. Faculty of Transport and Traffic Sciences	1. Insufficient number of vocational schools
2. Agency for Vocational Education and Training	2. Low interest of young people for nautical professions
3. Strategy for the Development of Inland Waterway Transport in Republic of Croatia (2008 – 2018)	3. Few links between the economy and education
4. Long nautical education tradition (on sea)	4. Lack of professional lifelong education and training possibilities for nautical personnel

<ol style="list-style-type: none"> <li>5. Recognition of IWT importance by political decision makers</li> <li>6. Quality IWT curriculum in general transport education and teaching materials</li> </ol>	<ol style="list-style-type: none"> <li>5. Lack of e – Learning systems</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1. Scholarships for students of Water department at Faculty of Transport and Traffic Sciences</li> <li>2. Scholarships for students of Inland navigation sailor department at Vocational high school Sisak</li> <li>3. Supporting programme for inland waterway transport based on <i>de minimis</i> state support</li> <li>4. Large number of nautical high schools and faculties (maritime transport)</li> <li>5. Launching of RIS training centre</li> <li>6. Introduction of INeS eLearning platform</li> <li>7. Recognition of IWT importance in national policies</li> <li>8. Involvement in international projects</li> </ol>	<ol style="list-style-type: none"> <li>1. Small number of promotion activities regarding IWT</li> <li>2. Lack of public awareness regarding IWT activities and policies</li> <li>3. Not enough funding for IWT</li> <li>4. Low share of adult education and training</li> <li>5. No harmonized certification in Europe</li> <li>6. No harmonized social regulation in Europe</li> </ol>

## Strengths

### 1. Faculty of Transport and Traffic Sciences

Faculty of Transport and Traffic Sciences is the only education institution in Croatia that provides IWT education at high level. IWT is studied on Water department and is well represented in teaching curricula.

### 2. Agency for Vocational Education and Training

AVET is a public institution established by the Government of the Republic of Croatia in 2005. Its mission is to improve vocational education and training, and to encompass young people into life – long learning programmes.

### 3. Strategy for the Development of Inland Waterway Transport in Republic of Croatia (2008 – 2018)

Strategy for development of river transport is a general document that deals with development of IWT and is fully harmonized with NAIADES initiative. Improvement of education in inland waterways transport is a relevant part of this Strategy. It defines some measures for improvement of education and training issues in inland waterways transport.

#### **4. Long nautical education tradition (on sea)**

Croatia, as maritime country, has a long tradition of educating maritime professions – sailors, captains, ship crewmen, as well as experts for maritime transport and logistics of maritime transport.

#### **5. Recognition of IWT importance by political decision makers**

Ministry of Sea, Transport and Infrastructure has detected the importance of IWT education and is therefore giving scholarships for the Water department student at Faculty of Transport and Traffic Sciences and Nautical department students at Vocational school Sisak.

#### **6. Quality IWT curriculum in general transport education and teaching materials**

Inland waterways are well presented in teaching curriculum at Faculty of Transport and Traffic Sciences. Curriculum consists of general subjects, technical subjects (for example Ships and Vessels), technological subjects (for example Water Transportation Planning).

### **Weaknesses**

#### **1. Insufficient number of vocational schools**

There is a lack of vocational schools in Croatia that provide education in IWT sector – only one school has been identified – Vocational School Sisak (Inland Navigation Sailor Department).

#### **2. Low interest of young people for nautical professions**

Low interest for nautical professions can be explained with the unavailability of high school education for IWT.

#### **3. Few links between the education institutions and the economy**

Links between, for example nautical companies and high schools, have not been defined. Strengthening of these links would result in better practice work and for the students on one hand, and would help employers to find competent young staff.

#### **4. Lack of professional lifelong education and training possibilities for nautical personnel**

There are not any lifelong training initiatives available for nautical personnel in Croatia.

#### **5. Lack of e – Learning systems**

E – Learning regarding IWT is not present at any level of education in Croatia.

### **Opportunities**

#### **1. Scholarships for students of Water department at Faculty of Transport and Traffic Sciences**

Ministry of Sea, Transport and Infrastructure since 2008 provides scholarships for Water department students at Faculty of Transport and Traffic Sciences

#### **2. Scholarships for students of Nautical department at Vocational high school Sisak**

Ministry of Sea, Transport and Infrastructure since 2008 provides scholarships for Inland navigation sailor department students at Vocational School Sisak

### **3. Supporting programme for inland waterway transport based on *de minimis* state support**

In 2007 and 2008 Ministry of Sea, Transport and Infrastructure adopted Supporting programme for inland waterway transport based on *de minimis* state support, where gross amount of trainees' salaries on ships was stimulated.

### **4. Large number of nautical high schools and faculties (maritime transport)**

Being maritime country, Croatia has large number of Maritime high schools situated mostly at the cities on Adriatic coast. There are 4 Maritime faculties identified within NELI act 3.1.

### **5. Launching of RIS training centre**

RIS training centre is going to be set up within the NELI WP 5 by CRUP. This centre is going to operate within national RIS authority (National Control Centre) which is being formed by the Ministry of Sea, Transport and Infrastructure

### **6. Introduction of INeS eLearning platform**

Installation and putting in operation InES eLearning platform will be performed within NELI WP 4 by CRUP

### **7. Recognition of IWT importance in national policies**

Adopting NAIADES initiative Croatian government demonstrated that development of IWT is a recognized part of national strategies.

### **8. Involvement in international projects:**

Institutions in Croatia are involved in international projects in which emphasis is set on IWT (e.g. NAIADES, PLATINA, EDINNA, NELI)

## **Threats**

### **1. Small number of promotion activities regarding IWT**

No applicants for *Supporting programme for inland waterway*, as well as short number of new inland waterway personnel, show little public knowledge of IWT activities.

### **2. Lack of public awareness regarding IWT activities and policies**

This threat could be resolved with more promotion activities in the IWT sector

### **3. Not enough funding for IWT**

Due to global economic crisis and major state budget reduction, governmental support for all transport infrastructure projects has been reduced to minimum.

### **4. Low share of adult education and training possibilities**

### **5. No harmonized certification in Europe**

## 6. No harmonized social regulation in Europe

# 4. Measures of the Croatia National Action Plans

## 4.1 Measures addressing nautical personnel

<b>CREATING BETTER INTERNSHIP POSSIBILITIES FOR IWT STUDENTS</b>	
Status quo	Students of Water transport department at Faculty of Transport and Traffic Sciences are obligated to do practical part of their study at third year of their education. However, there exists no arrangement between the institutions which would give students easier access to do their obligated practical work at relevant companies.
Proposed Measure	Create cooperation between education institutions and relevant water transportation stakeholders in order for students to have quality practical work. In this way the theory taught at high schools or universities would also have better practical side.
Expected impact	Students would be able to connect the theory knowledge with the practical work. Therefore the transfer between the study period to the working period would be easier, and students would be included into market flows.
Responsibility and stakeholders	R: FPZ S: Ministry of Sea, Transport and Infrastructure, high schools, water transport companies, port authorities, Ministry of Education, Science and Sports
Priority	medium
Financing	Ministry of Sea, Transport and Infrastructure, water transport companies, port authorities

<b>PROMOTION OF INLAND NAVIGATION EDUCATION AND TRANSPORT</b>	
Status quo	There are not enough people interested in entering nautical education, especially at high school level.
Proposed Measure	Start national promotion activities to attract people to start their careers at IWT sector. Launching promotion via Internet campaigns, newspaper articles, TV reports etc.
Expected impact	High school student would see the possibilities given by IWT careers and would consider to start one.
Responsibility and stakeholders	R: Ministry of Sea, Transport and Infrastructure S: IWT companies, port authorities, Inland waterways agency
Priority	High



Financing	Ministry of Sea, Transport and Infrastructure
-----------	---

<b>PROVIDE NAUTICAL EDUCATION FOR ADULTS</b>	
Status quo	Unemployment rate in Croatia is higher than ever (308 675 of unemployed in April 2010 according to Croatian Employment Service). There are more people each day searching for new jobs or wanting to change careers.
Proposed Measure	Provide possibilities for people who are looking for jobs to change careers. Organize additional education for people who are interested to start career in IWT sector.
Expected impact	People interested in switching or starting careers in IWT sector would have the possibility for additional education and training. This would result in easier adjustment of adults to jobs in inland waterway sector.
Responsibility and stakeholders	R: Ministry of Sea, Transport and Infrastructure S: Ministry of Science, Education and Sports, Croatian employment service,
Priority	medium
Financing	Ministry of Sea, Transport and Infrastructure, Ministry of Science, Education and Sports

#### **4.2 Measures addressing IWT logistics personnel**

<b>ESTABLISHMENT OF NEW RIS TRAINING CENTRE</b>	
Status quo	According to the <i>Strategy for the Development of Inland Waterway Transport in Republic of Croatia (2008 – 2018)</i> , development of River Information Services is one of the priorities in inland waterways sector.
Proposed Measure	RIS training centre should be established and implemented in Sisak. CRUP will establish this centre within the NELI project. After the project ends, RIS training centre will be at the disposal of RIS National Control Centre (which is process of formation).
Expected impact	RIS training centre will provide better practical work to people working in IWT sector. In this way more young people would be interested and attracted to IWT sector with new technologies and ways of training.
Responsibility and stakeholders	R: CRUP S: Ministry of Sea, Transport and Infrastructure, RIS National Control Centre, FPZ
Priority	high
Financing	EU (IPA funds)

### GENERATING INLAND WATERWAY LOGISTICS CURRICULUM

Status quo	Logistics curriculum at Faculty of Transport and Traffic Sciences is represented as a general transport subject. Specific logistic curriculum for each transport sector doesn't exist.
Proposed Measure	Develop specific logistics curriculum for inland waterway transport.
Expected impact	With IWT logistic curriculum, students would get better insight into logistic processes in transport systems.
Responsibility and stakeholders	R: Faculty of Transport and Traffic Sciences S: Ministry of Education, Science and Sports, related high schools
Priority	low
Financing	Ministry of Education, Science and Sports

### DESIGN OF eLEARNING TOOLS FOR IWT EDUCATION

Status quo	Currently, there are no eLearning tools or materials available for students of IWT on any level of education. CRUP will implement INeS eLearning platform within NELI project, which is an important step in the process of implementing this measure.
Proposed Measure	Develop eLearning tools will give updated materials to students, all in one place and will provide a database of IWT education materials.
Expected impact	IWT eLearning platform, in general, will be a modern training instrument which could gather all teaching materials and give easier access to inland waterway education. This would also have positive promotion impact. CRUP will implement this activity within NELI project.
Responsibility and stakeholders	R: CRUP, Ministry of Education, Science and Sports S: Faculty of Transport and Traffic Sciences, related high schools, Croatian Academic and Research Network - CARNET
Priority	medium
Financing	Ministry of Education, Science and Sports, EU projects

## 5. Identification of national or regional funding possibilities for Education and Training Measures in Croatia

### 5.1 Existing National Funding Programmes

There are little funding possibilities in the area of IWT in Croatia.

### Supporting programme for inland waterway transport based on *de minimis* state support

Actions able to be supported	<i>Purchase of new technologies - ship device or equipment Employment of trainees for ships profession Promotion activities of inland waterways</i>
Eligible beneficiaries	<i>Companies which core business is related to IWT</i>
Funding rate or budget	<i>Max. 33% of device or equipment value Max. 50% of gross wage for apprentices during the on – board practice Max. 100% of actual costs for promotion of IWT and max. 50% of costs for promotion office</i>
Further information	<i>Ministry of the Sea, Transport and Infrastructure</i>
Link	<i><a href="http://www.mmpi.hr/default.aspx?id=4691">http://www.mmpi.hr/default.aspx?id=4691</a></i>

### Granting scholarships for water transport and nautical department students

Actions able to be supported	<i>Scholarships for: students of Water department at Faculty of Transport and Traffic Sciences, Zagreb students of Nautical department at Vocational high school, Sisak</i>
Eligible beneficiaries	<i>Students of water transportation at Faculty of Transport and Traffic Sciences, University of Zagreb, and students of nautical department at Vocational School Sisak</i>
Funding rate or budget	<i>165 € per student per month</i>
Further information	<i>Ministry of the Sea, Transport and Infrastructure</i>
Link	<i><a href="http://www.mmpi.hr/default.aspx?id=4691">http://www.mmpi.hr/default.aspx?id=4691</a></i>

### Granting scholarships for students of scarce professions

Actions able to be supported	<i>Scholarships for student that are educated in professions in demand</i>
Eligible beneficiaries	<i>Students of professions in demand</i>
Funding rate or budget	<i>140 € per student per month during 10 months</i>

Further information	County of Osijek – Srijem
Link	<a href="http://www.stipendije.info/hr/baza_stipendija/programi/stipendije_ucenicima_i_studentima_koji_se_obrazuju_za_deficitarna_zanimanja">http://www.stipendije.info/hr/baza_stipendija/programi/stipendije_ucenicima_i_studentima_koji_se_obrazuju_za_deficitarna_zanimanja</a>

## 5. 2 Existing National Funding Institutions

### Croatian Employment Service

*Public body which provides services for people who search jobs or employees. Runs statistics on (un)employment rate, gives advice on career orientation, organizes seminars etc.*

Address	Radnička cesta 1, 10 000 Zagreb, Croatia
Link	<a href="http://www.hzz.hr/default.aspx?id=3823">http://www.hzz.hr/default.aspx?id=3823</a>

### Croatian Waterways Agency

*Public, non-profit institution with tasks to monitor, control, develop inland waterways.*

Address	Parobrodarska 5, 32 000, Vukovar, Croatia
Link	<a href="http://www.vodniputovi.hr/index.php">http://www.vodniputovi.hr/index.php</a>

### Croatian Chamber of Economy

*The Croatian Chamber of Economy is an independent professional and business organisation of all legal entities engaging in business.*

Address	Rooseveltov trg 2, 10 000 Zagreb, Croatia
Link	<a href="http://www.hgk.hr">www.hgk.hr</a>

### Croatian Bank for Reconstruction and Development

*State – owned bank, offers different loan programmes for small business entrepreneurship and start – up, innovations and environmental protection (for example cleaner transport technologies).*

Address	Strossmayerov trg 10, 10 000 Zagreb, Croatia
Link	<a href="http://www.hbor.hr">www.hbor.hr</a>

## 6. Conclusions

Croatian National Action Plan for Education and Training Issues in the Field of Inland Waterway Transport follows *Strategy for the Development of Inland Waterway Transport in Republic of Croatia (2008 – 2018)*. This Strategy is in most parts focused on security aspects of inland waterways, implementation of RIS systems, organization and management of waterways, realization of important infrastructure programs.

When it comes to the field of education in inland waterway transport, few measures have been pointed out: opening IWT learning modules at maritime schools at Adriatic and providing scholarships for ships professions. Decreased interest for employment in shipping professions is described as a serious problem, but no significant and concrete measures to improve this status have been made.

All other measures described in this action plan have been adopted by the Faculty of Transport and Traffic sciences within belonging NELI activity. This was no easy task – analyzing and gathering data on relevant policies and bringing the measures that could be implemented one day.

Croatia has fully accepted NAIADES initiative, and is creating all future policies according to this European action programme. It is justified to expect that national policy when it comes to inland waterways will gravitate to European development trends.

## 7. Validation of Croatian National Action Plan

In process of elaborating this action plan, next stakeholders have been involved:

- Faculty of Transport and Traffic Sciences
- Inland Navigation Development Centre
- Ministry of Sea, Transport and Infrastructure
- Port Authority Vukovar
- Port Authority Slavonski Brod

Each of these institutions was contacted and introduced with the activity of elaboration of Croatian national action plan for education and training in IWT sector. All stakeholders contributed with their expert and practical knowledge which helped Faculty of Transport and Traffic Sciences to put all gathered data into National Action Plan for Education and Training Issues in the Field of IWT.

Ministry of the Sea, Transport and Infrastructure – Directorate for Inland Waterway Navigation, was included into validation of the National Action Plan for Education and Training Issues in the Field of IWT. All of their suggestions were implemented into the final NAP report and are in accordance with policy and strategy for development of the inland waterway sector in the Republic of Croatia.