



NATIONAL ASSOCIATION OF RADIO-DISTRESS
SIGNALLING AND INFOCOMMUNICATIONS



River Information Services

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Director for Projects and Development

RSOE

Budapest, 29.09.2010.

www.rsoe.hu

What is RIS?

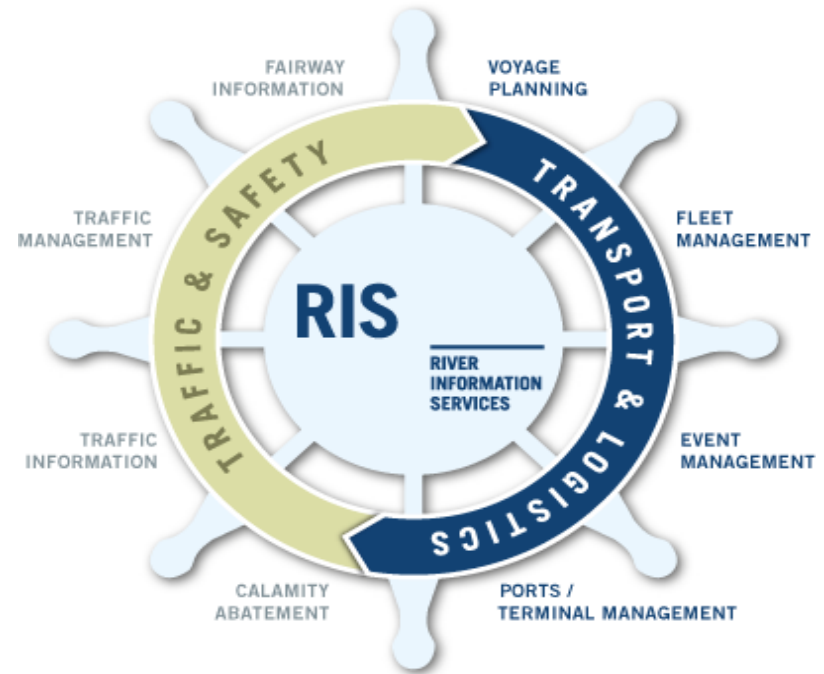
- Harmonised information services to support traffic and transport management in inland navigation enhancing safety, security, environmental friendliness and the quality and efficiency of transport services
- River Information Services (RIS) facilitate a swift electronic data transfer between relevant actors through in-advance and real-time exchange of information

Traffic-related services:

- Fairway Information Services
- Traffic information
- Traffic management
- Calamity abatement

Transport-related services:

- Voyage planning
- Fleet Management
- Event Management
- Ports and Terminal Management



Source: via donau

Enabling RIS technologies and infrastructure

- Inland Electronic Navigational Chart (IENC) / Inland Electronic Chart Display and Information System (Inland ECDIS)
- Inland Automatic Identification System (Inland AIS)
- Electronic Ship Reporting
- Notices to Skippers (NtS)

Services for skippers, authorities and logistic users



NOTICES TO SKIPPERS bm

[RTS message](#) [Email service](#)

Language: [sk](#) [bg](#) [de](#) [en](#) [fr](#) [hr](#) [hu](#) [nl](#) [no](#) [ru](#) [es](#) [cz](#)

[Enhanced ice reports](#)

Fast search
Number (of the notice) / Year: /

Detailed search

Waterway	<input type="text" value="Donau (ATXXX0000100000)"/>	
River km from	<input type="text" value="Slowakische Grenze"/>	km <input type="text" value="1072.7"/>
River km to	<input type="text" value="Deutsche Grenze"/>	km <input type="text" value="2223.1"/>
Country where message is valid	<input type="text" value="Austria"/>	
Period of validity from	<input type="text" value="07"/> <input type="text" value="05"/> <input type="text" value="2009"/>	
Period of validity till	<input type="text" value="07"/> <input type="text" value="06"/> <input type="text" value="2009"/>	
Date of issue	<input type="text" value=""/>	<input type="text" value=""/>

Type of message

- Fairway and traffic related message
- Water related message
- Ice message
- Full text message
- Code format

Format of the message

Language:

User groups and services

Services for skippers

- Electronic Navigational Charts / Inland ECDIS
- Information on nautical conditions (fairway, obstructions, water level, etc.)
- Real time traffic information
- Electronic reporting of cargo and voyage
- Electronic pre-announcement at locks and harbours

Services for authorities

- Real time traffic monitoring (tracking and tracing)
- Analysis of accidents
- Exchange of safety related messages
- Electronic vessel register
- Electronic lock management
- Reception of electronic cargo reports
- Border surveillance

Services for logistic users

- Electronic cargo documents
- Data for fleet management
- Data for voyage planning
- Fairway conditions
- Water level forecast
- Availability of locks
- Calculations of arrival times

R&D

FP4-5
Projects
INDRIS
COMPRIS
ALSO
DANUBE

Galileo
IWT
projects

FP7
Projects
RISING

NAIADES
PLATINA
SWP 2.3/
5.2

EU
Framework
Programme
for RTD

Implementation

EU RIS Directive
(EC/2005/44)

DoRIS

RIS
HU

TEN-T MAP

RIS
NL

RIS
BE

RIS
DE

...

Co-
ordin-
ation

IRIS
Master
Plan

IRIS
EU

IRIS Europe II

...

Trans-
European
Transport
Network

RIS HR

RIS RO

RIS BG

RIS CS

...

Structural/
Cohesion
Funds,
IPA, et.al.

1996-2006

2007-2013

2014ff

----- Project Proposals

----- Project Proposals



Legal Basis for RIS

**EU RIS
Directive
(2005/44/EC)**

**Commission Regulation
414/2007**

concerning the technical guidelines
for the planning, implementation
and operational use of RIS
(RIS Guidelines)

Commission Regulation 415/2007
concerning the technical specifications for
vessel tracking & tracing system **(Inland AIS)**

Commission Regulation 416/2007
concerning the technical specifications
for **Notices to Skippers (NtS)**

Commission Regulation 164/2010
defining the technical specifications for
electronic ship reporting (ERI)

Draft Commission Regulation
defining the technical specifications for
Inland ECDIS

IRIS Europe Documentation
Technical and Administrative Agreement for
the international data exchange
TAA & R2D2

Expert Group
Tracking & Tracing

Expert Group
Notices to Skippers

Expert Group
Electronic Reporting
International

Expert Group
Inland ECDIS

“who”

“what”

- **Applicability**
- **Responsibilities of Member States**
- **Minimum requirements for RIS**
- **Services to be provided**
- **Technical specifications to be applied**

“how”

RIS Implementation – Status on the Danube



RIS Implementation – upper/middle Danube

Austria:

- Electronic Navigational Charts
- Electronic reporting (test)
- Tactical traffic information
- Notices to skippers
- Hull Database
- RIS Centre



Hungary:

- Electronic Navigational Charts
- Calamity abatement support
- Electronic reporting (test)
- Tactical traffic information
- Notices to skippers
- RIS Centre



Germany:

- Electronic Navigational Charts
- Electronic reporting
- Tactical traffic information
- Notices to skippers
- Hull Database



RIS Implementation - upper/middle Danube

Slovakia:

- Electronic Navigational Charts
- Electronic reporting (test)
- Tactical Traffic Information
- Hull Database
- Notices to skippers



Croatia:

- Electronic Navigational Charts
- Water level information
- Tactical traffic information
- Electronic Reporting in prep.
- Notices to skippers
- RIS Centre



RIS Implementation - lower Danube

Serbia:

- Electronic Navigational Charts
- Tactical traffic information (test)
- Notices to skippers
- Full scale RIS implementation ongoing (IPA)



Bulgaria:

- Electronic Navigational Charts
- Tactical traffic information (test)
- Electronic Reporting in prep.
- Notices to skippers (pilot)
- Full scale implementation in preparation (Structural and Cohesion funds)



Romania:

- Electronic Navigational Charts
- Notices to skippers
- VTS centers along Danube
- VTMIS Danube-Blacksea Canal
- AIS (maritime Danube)
- Full scale implementation in preparation (Structural and Cohesion funds)



Ukraine:

- Electronic Navigational Charts
- VTMIS for maritime Danube
- Notices to skippers (pilot)
- Electronic reporting in prep.
- Tactical traffic information (test)



RIS Implementation - Status Overview

- Inland ENC's in all countries
- Notices to Skippers in most countries
- Electronic Reporting System in some countries (pilot operation)
- Tracking & Tracing using Inland AIS in most countries

RIS Implementation – ECDIS charts

Country		coverage	published	available for free	used version of standard	depth data included	source for charts
DE	Main	full	yes	no	1.02 / 2.1	no	survey
	Main-Danube canal	full	yes	no	1.02	no	survey
	Danube	full	yes	no	1.02 / 2.1	35 rkm	survey
AT	Danube	full	yes	yes	2.0	yes	survey
SK	Danube	full	yes	yes	1.02	no	survey, conversion
HU	Danube	full	yes	yes	1.02	yes	survey, hydr./buoy. Chart
	Tributary streams	32 rkm	no	t.b.d	1.02	not yet	hydr./buoy. Chart
HR	Danube	full	yes	yes	2.0	no	survey/maps
	Sava	full	yes	yes	2.0	no	survey
	Drava	up to Osijek	yes	yes	2.0	no	survey
RS	Danube	full	yes	yes	1.02	no	various
			planned until september	yes		no	various
	Sava	full		yes	1.02		
	Tisza	full	yes	yes	1.02	no	various
BG	Danube	full	yes	yes	1.02	no	various
RO	Danube	full	66%	yes	1.02/2.1	only within fairway	survey, ortho
	Black Sea canal	full	no	no	1.02	only within fairway	survey, ortho
UA	Danube	full	yes	no	1.02	yes	survey
	Bystroe Canal	full	yes	no	S57 3.1	yes	survey
	Dnieper	700/1000	yes	no	1.02	yes	survey
RU	Europe and Yenisey	9300 km	yes	no	S57 3.1.1	yes	various

RIS further development

Several European projects are addressing the further enhancement of RIS

- Implementation of a legal basis for international data exchange
- Harmonised standards for Quality of Services
- Harmonised data basis for all RIS applications
- Use of RIS for logistics purposes and in logistic chain management
- Danube Fairway Information Services Portal



www.rising.eu



www.naiades.info/platina

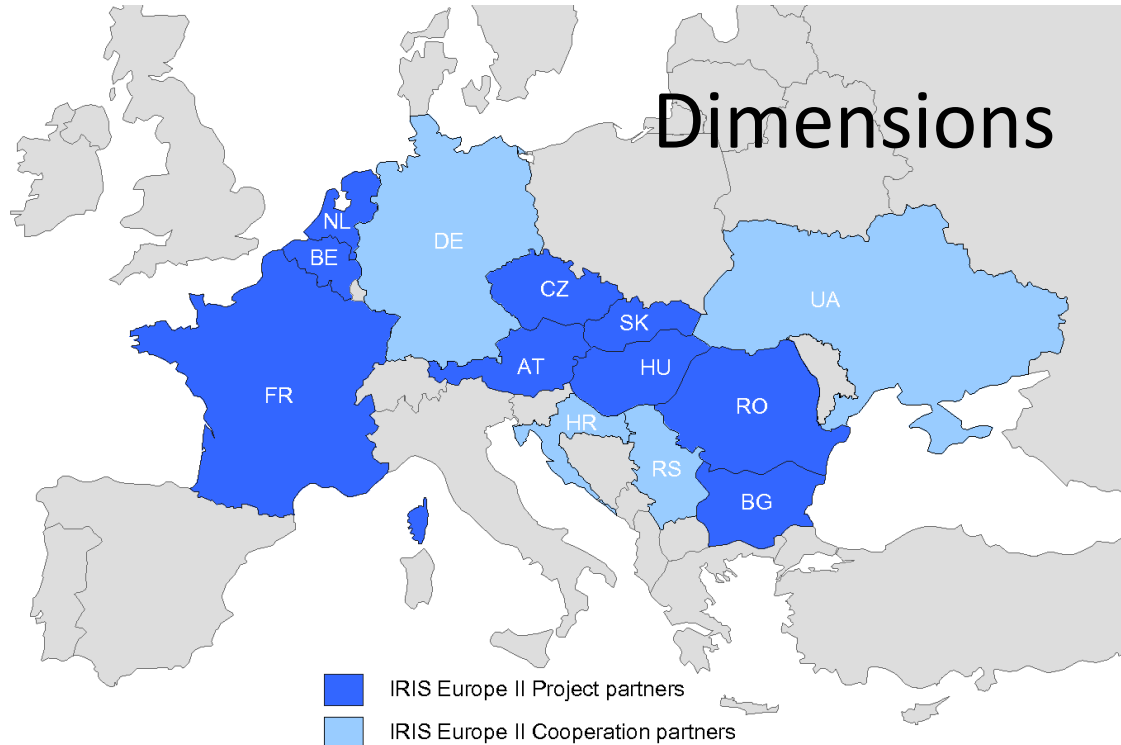


www.iris-europe.net



www.newada.eu

RIS Implementation – IRIS Europe II



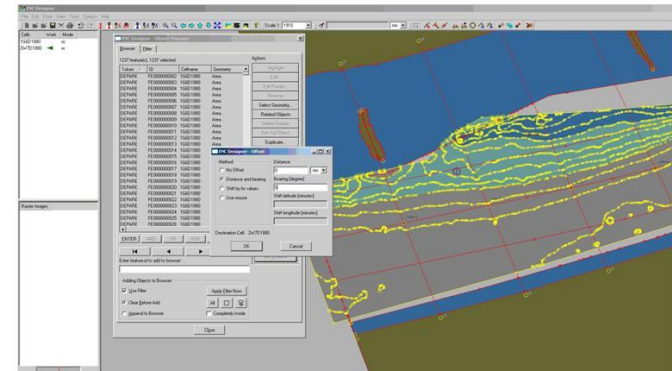
RIS Implementation – IRIS Europe II

- Motivation: Support RIS providers, traffic and waterway authorities in enhancing their RIS Services, including the provision of interfaces especially for logistical RIS Users.
- Duration: 01/2009 – 12/2011
- Objectives:
 - Common definition and adaptation of RIS standards within RIS Expert groups, based on pilot implementation experience
 - Evaluation of new RIS technologies
 - Demonstration and evaluation of additional services
 - Further elaboration and implementation of measures for cross-border exchange of RIS data
 - Definition of requirements for operation of RIS in order to guarantee Quality of Information Services to all RIS users

RIS Implementation – IRIS Europe II

Actual depth data for fairway users

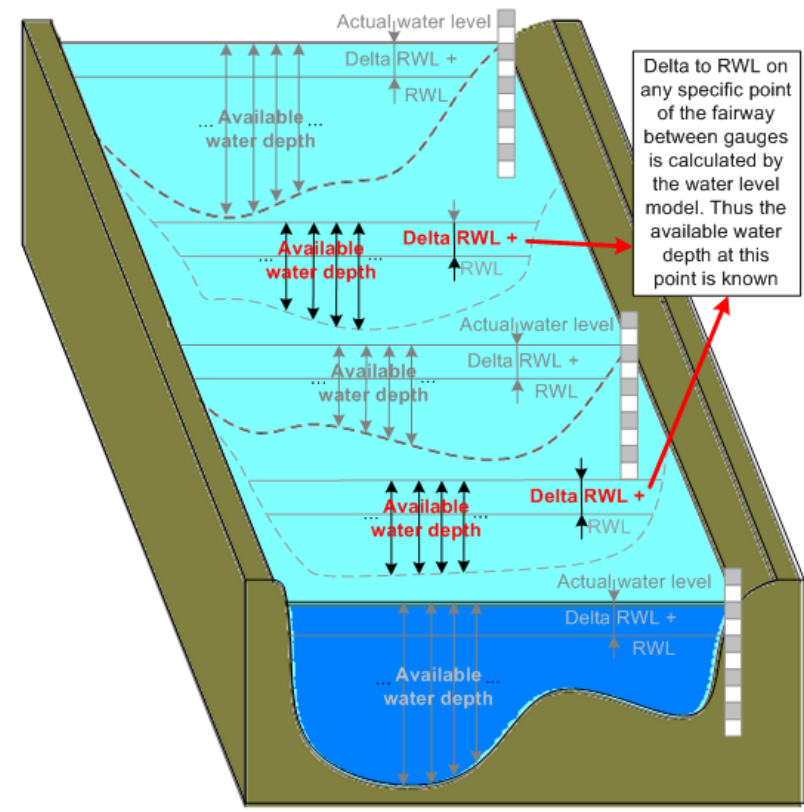
- Objectives
 - Optimization of work flow for depth data generation in Inland ENC's
 - Investigation of minimum accuracy and update requirements for depth information within Inland ENC's
 - Optimization of publication process



RIS Implementation – IRIS Europe II

Provision of water level information based on water level models to fairway users

- Objectives
 - Implementation of local **water level models** at pre-defined pilot stretches in seven countries
 - Implementation of a **webservice** application to provide the data to vessel users
 - Upgrade of **IECDIS viewers** to display actual water depth based on water level model data



RIS Implementation – IRIS Europe II

Pilot stretches



RIS Implementation – NEWADA

- Project title: Network of Danube Waterway Administrations
- Programme: South East Europe Programme
- Duration: 36 Months (April 2009 – March 2012)
- Observers: MoTs, Danube Commission, Sava Commission, ICPDR

RIS Implementation – NEWADA



WP3 (SVP)
Hydrography
and Hydrology

WP4 (AFDJ)
Accessibility
of waterway
infrastructure

WP5 (RSOE)
ICT networks
and services

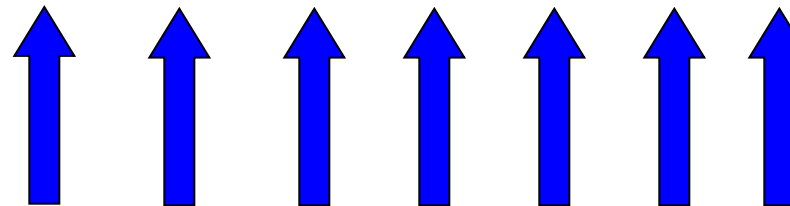
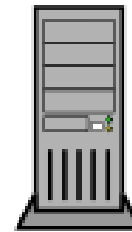
WP6 (VIA)
Strategical
cooperation
and communi-
cation

RIS Implementation – NEWADA

Danube FIS Portal

Establishment of **central DANUBE FIS Portal** in order to provide harmonised Danube services for the skippers and other stakeholders in the IWT sector

Danube FIS Portal
Web Server



National static and
dynamic input



RIS Implementation – NEWADA

Danube FIS Portal

DYNAMIC DATA

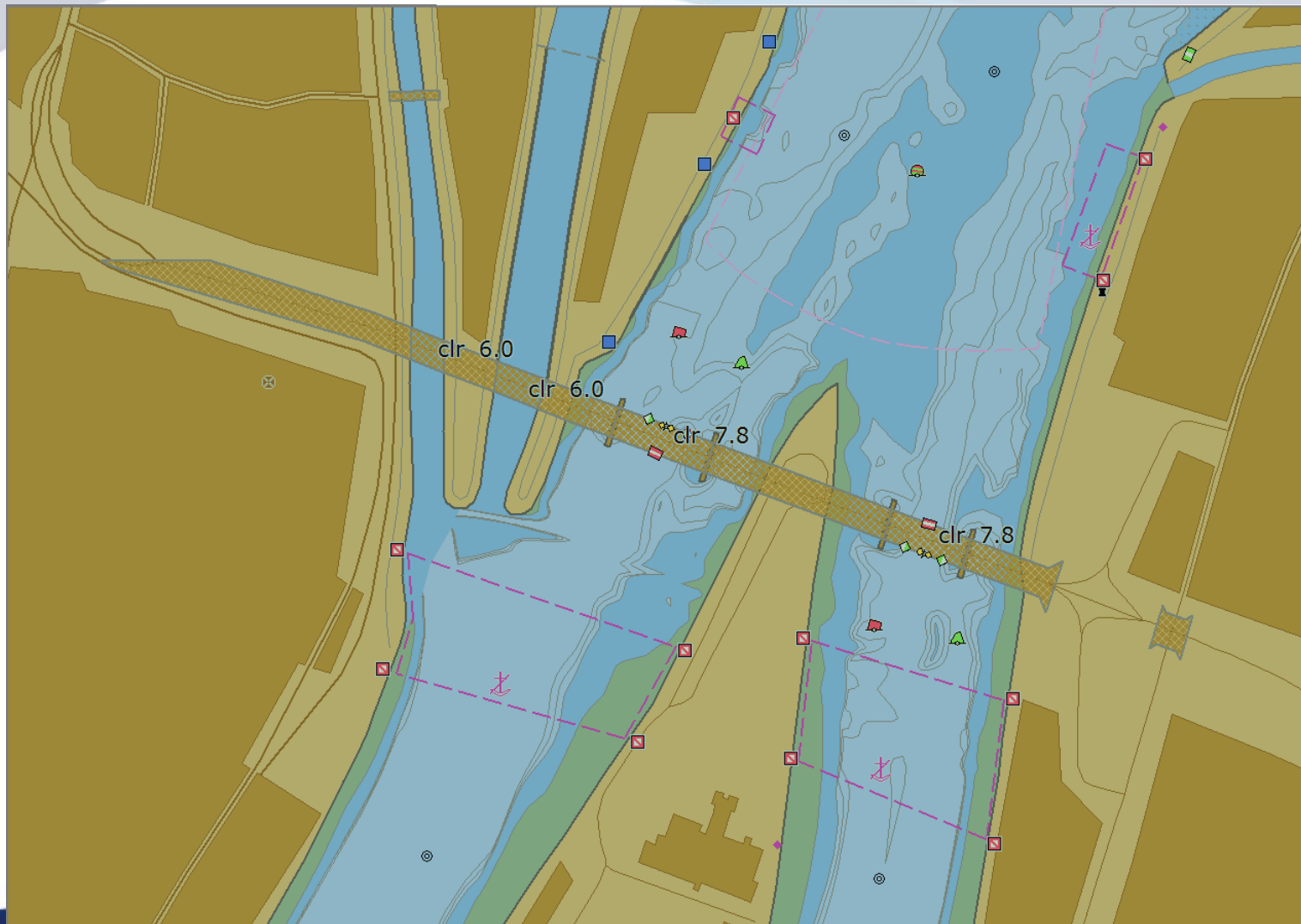
- *Notices to skippers (NtS) – NTS EG harmonisation*
 - Fairway and Traffic Message
 - Water level information, ice message
 - Actual information on critical/shallow sections

STATIC DATA

- Information on bridges
- Information on ports
- Information on locks
- Information on responsible authorities
- ENC download page
- .Danube map (D4D .gml files)

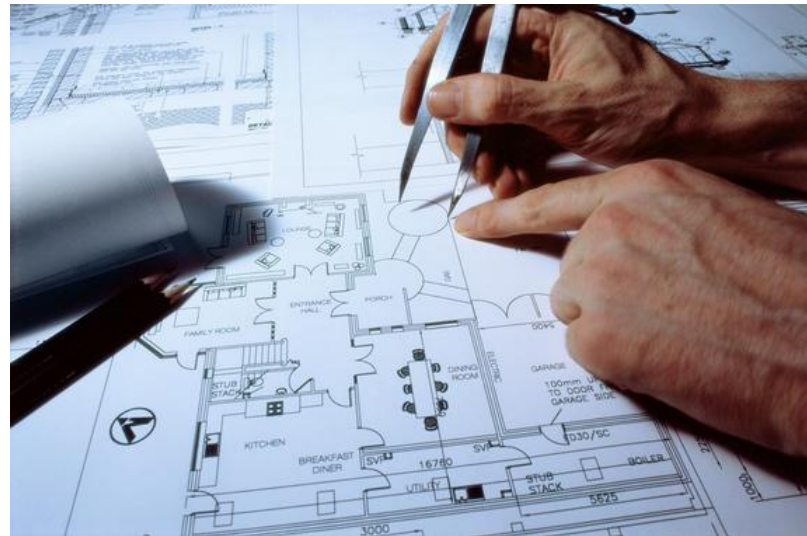
RIS further development – Outlook

- On-going implementation projects
- Results from the current 2nd TEN-T Call
- Where necessary support further development with research and technological development projects
- Enhanced integration with other transport modes (eFreight initiative)
- Maintenance and further development of the legal basis
- Concrete issues on the agenda are e.g. the technical and formal basis for (international) data exchange



How RIS can support fairway planning?

- Producing statistics of fairway usage
- Aids to navigation
- Accidents



Conclusions

- RIS implementation is an ongoing process in all Danube countries
- ENC's and NtS are provided in all Danube countries
- Provision of depth data for skippers
- Further developments with EU-cofinancing
- More information on:
 - <http://www.ris.eu>





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**Thank you for your kind
attention!**

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