

12th Meeting of Working Groups

Waterway Maintenance and Management

Brussels | 29th November 2017



Agenda

- Discussion on critical fairway locations along the Danube on the basis of the FAIRway National Action Plans (Update October 2017)
- Topical overview of navigability conditions January 2016 – October
- Discussion on priorities for rehabilitation and maintenance measures
- Input presentation: navigability conditions from the viewpoint of the waterway users (*Mr. Alexandru Serban Cucu, AAOPFR ROMANIA*)
- Tour-de-table: Recent and planned activities and budget to drive implementation of the FRMMP forward

Objectives

- Present the National Action Plans and zu den Änderungen (formell)
- Discussion on critical fairway locations along the Danube on the basis of the FAIRway National Action Plans (Update October 2017)
- Topical overview of navigability conditions January 2016 – October
- Discussion on priorities for rehabilitation and maintenance measures
- Input presentation: navigability conditions from the viewpoint of the waterway users (*Mr. Alexandru Serban Cucu, AAOPFR ROMANIA*)
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Fairway Rehabilitation and Maintenance Master Plan

for the Danube and its Navigable Tributaries

National Action Plan Update
October 2017

Fairway Rehabilitation and Maintenance Master Plan

- Defines a recommended minimum **Level of Service** (2.5m fairway depth at Low Navigable Water Level)
- Lists **critical locations** as regards fairway rehabilitation and maintenance
 - **below 2.5m fairway depth (LNWL)** and specified fairway widths
 - Identified by waterway administrations and Danube users (2014)



- Specifies the **required national measures** and **additional investments needed** to reach the recommended minimum Levels of Service

National Action Plans

- monitor the implementation status of the **Fairway Rehabilitation and Maintenance Master Plan**, as adopted in 2014
- **reporting and steering tool** to promote further implementation of the Master Plan



- **Updated twice per year** by FAIRway Danube consortium (May and October)
Yearly update for remaining riparian countries (DE, RS, BiH, UA) coordinated by the EUSDR PA1a (May)

National Action Plans allow us

- ...to keep fairway rehabilitation and maintenance on the political agenda
- ...to identify ways to improve and harmonise the service of waterway administrations

National Action Plan Updates

Updates are published on:

- PA1a website: www.danube-navigation.eu/documents
- FAIRway Danube website: <http://www.fairwaydanube.eu/downloads>

National Action Plans - Content

Status and outlook on:

- situation at critical locations / fairway availability
- hydrological conditions and water levels
- rehabilitation and maintenance activities
- performed and planned activities regarding key issues
- environmental impacts
- expenditures and budget needs

Budget needs

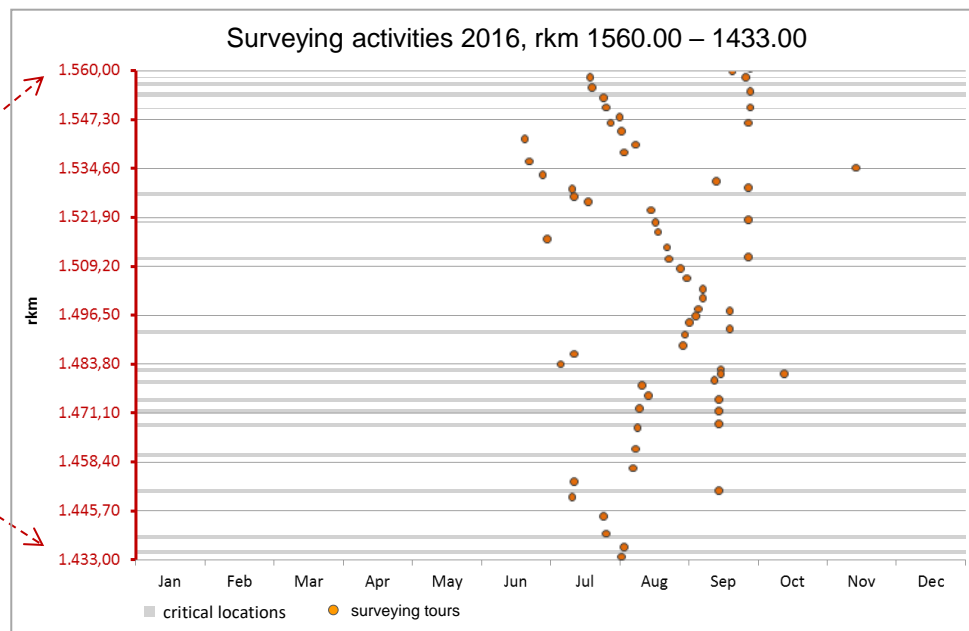
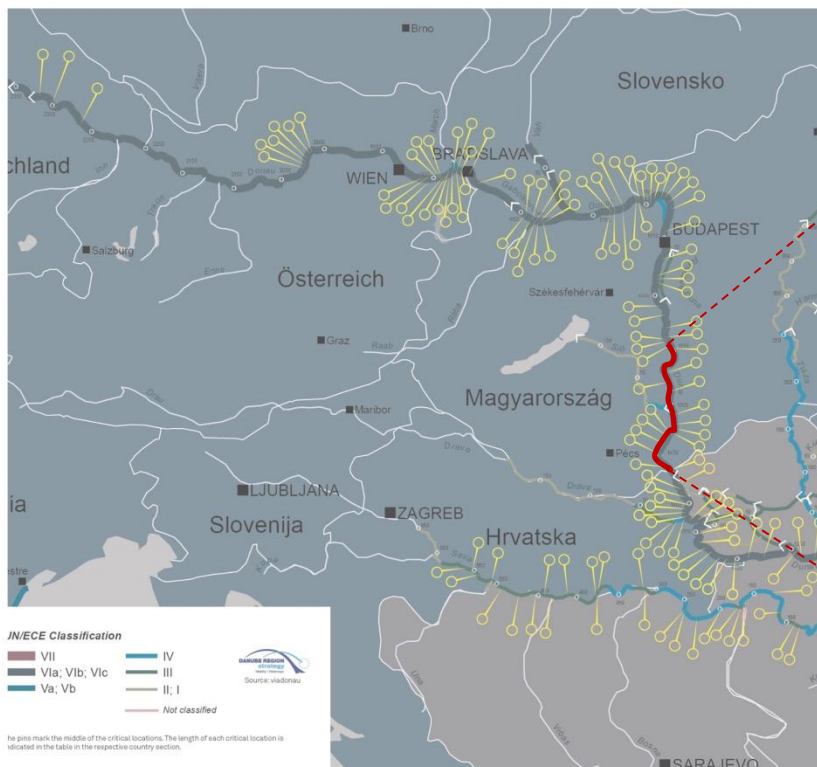


National Action Plans - Content

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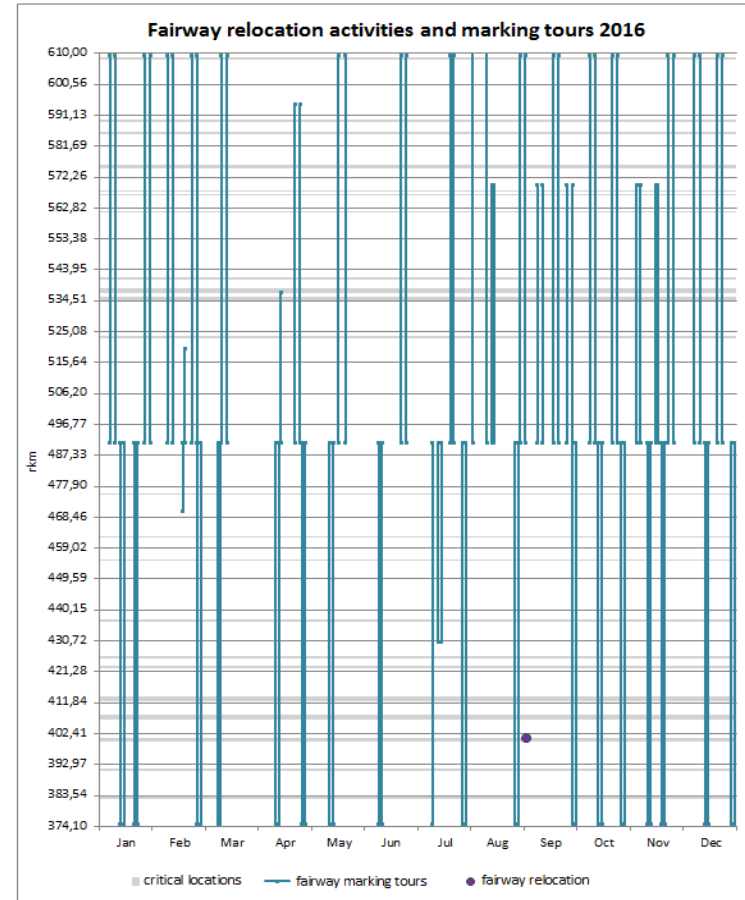
Reporting of rehabilitation and maintenance measures



- showing which activity was conducted where on the waterway and when

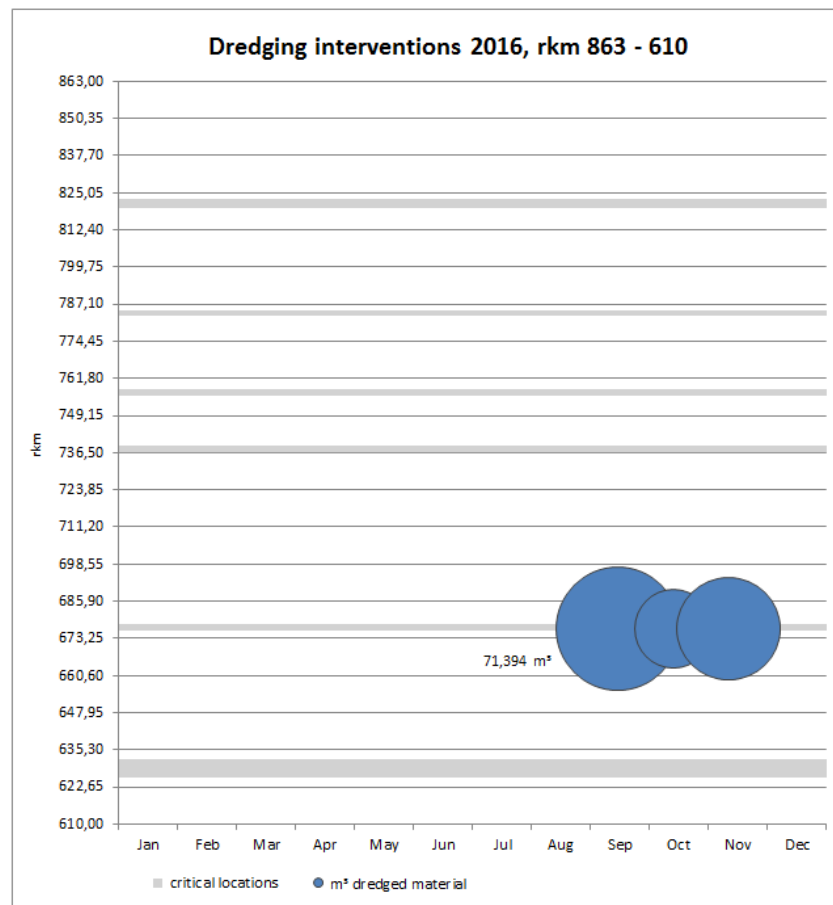
Reporting of rehabilitation and maintenance measures

Fairway marking



Reporting of rehabilitation and maintenance measures

Dredging

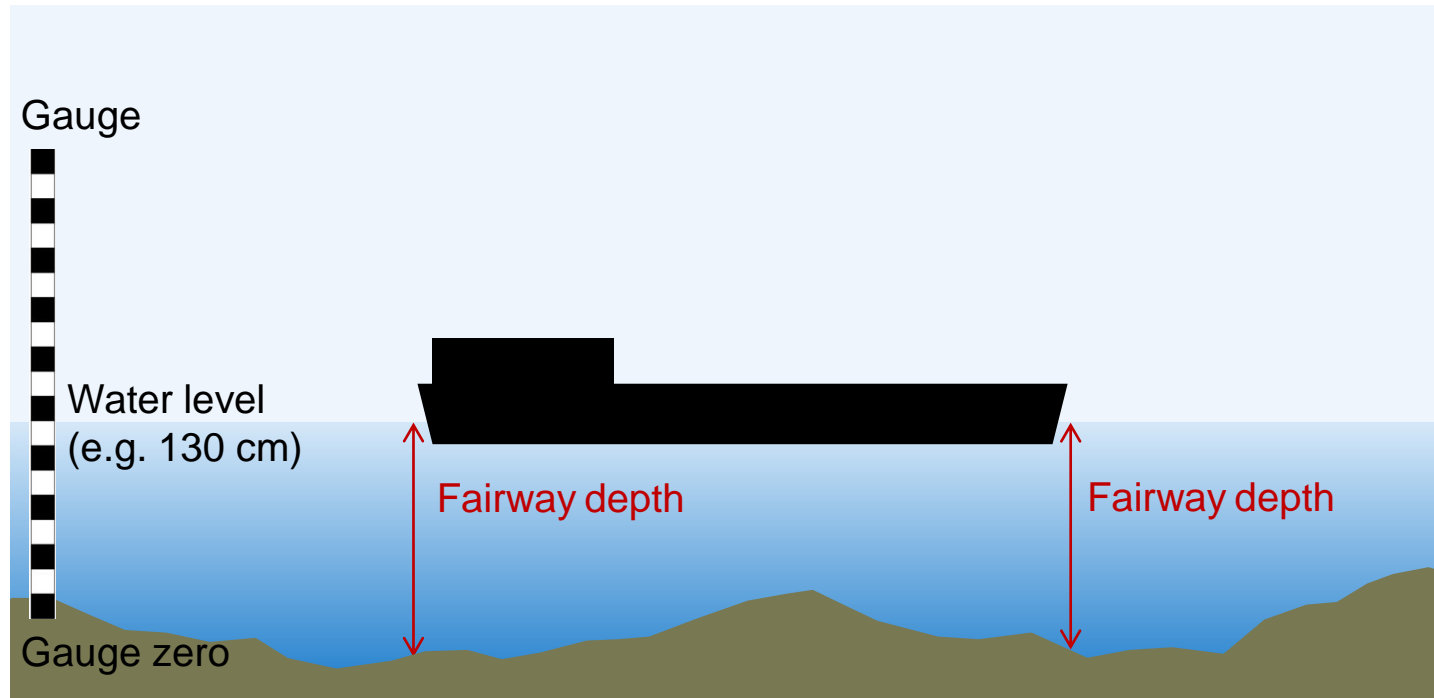


National Action Plans - Content

Status and outlook on:

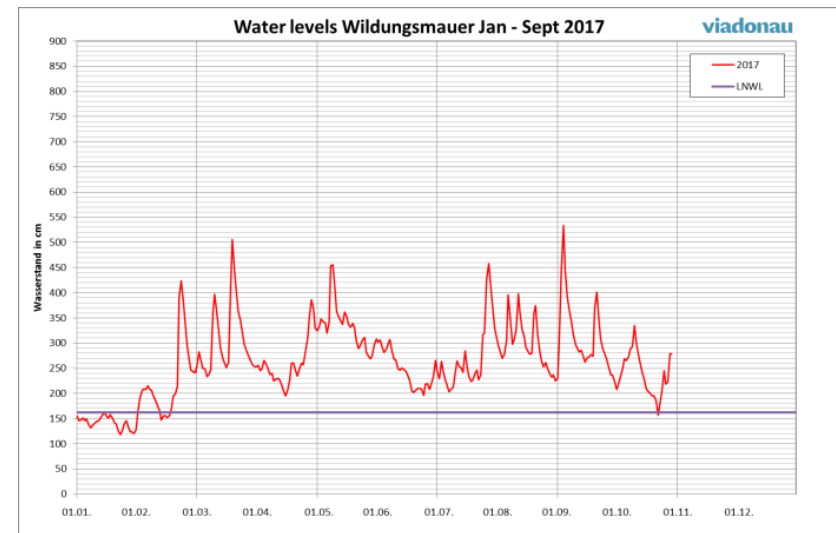
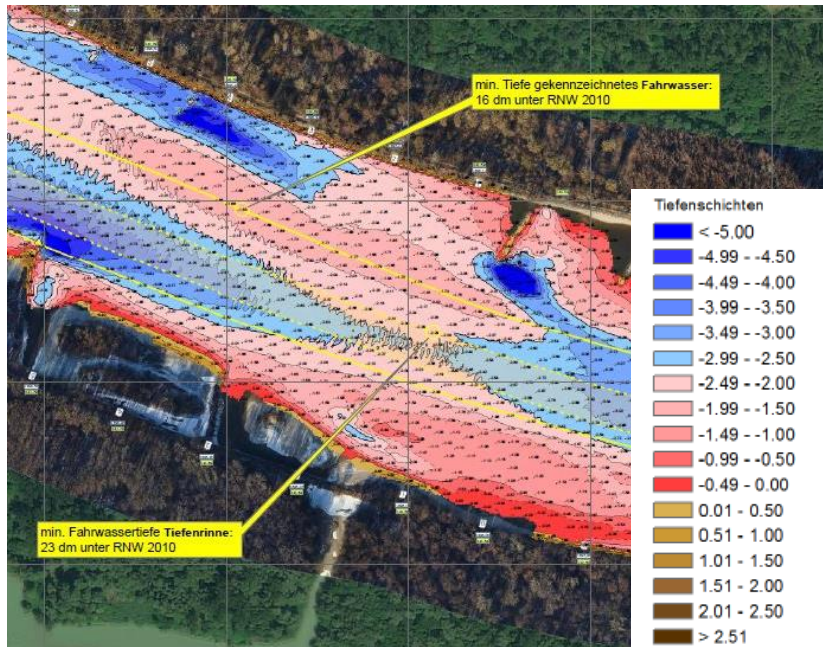
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Water level \neq Fairway depth



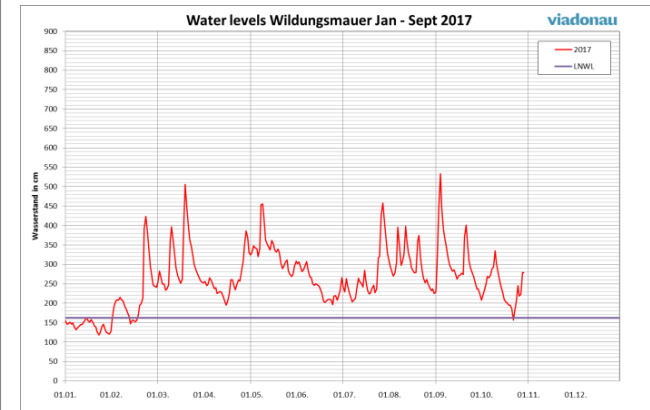
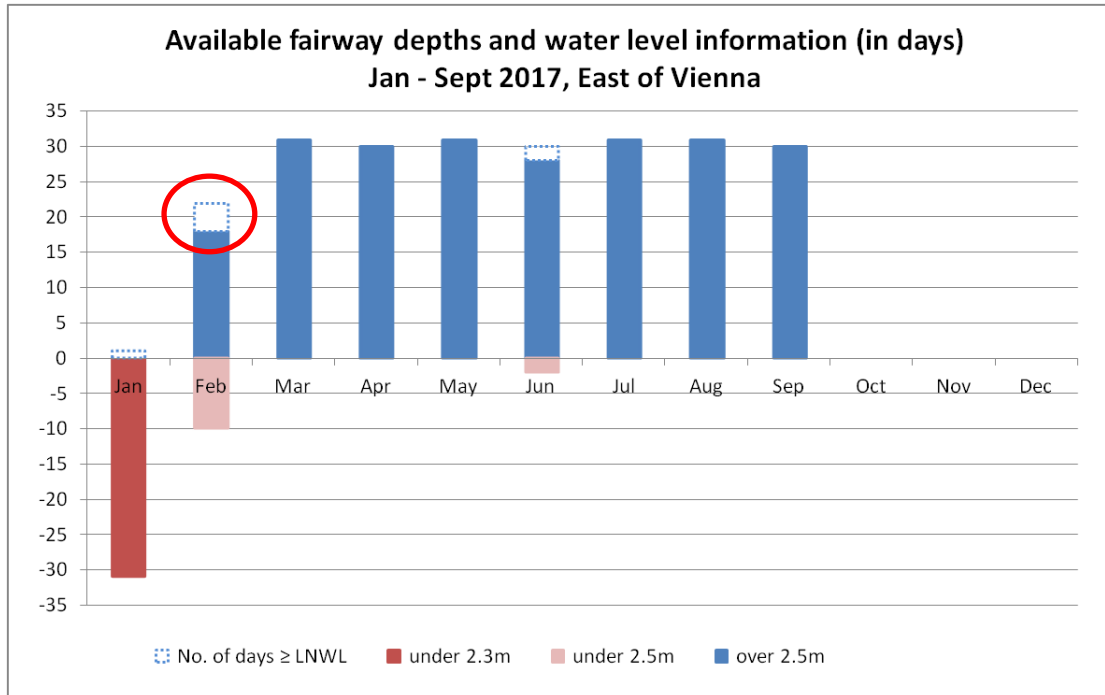
Fairway depth depends on the water levels and the riverbed morphology

Fairway availability statistics



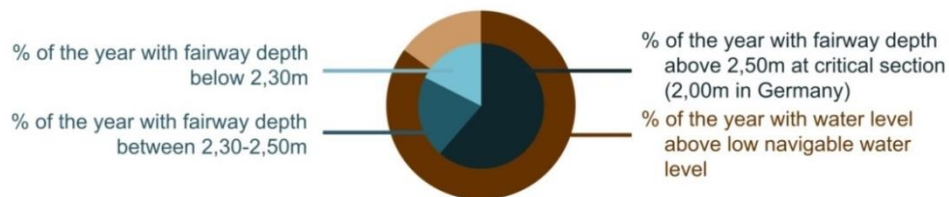
- shallowest point of the surveyed riverbed in relation to the rising and falling water levels

Fairway availability statistics



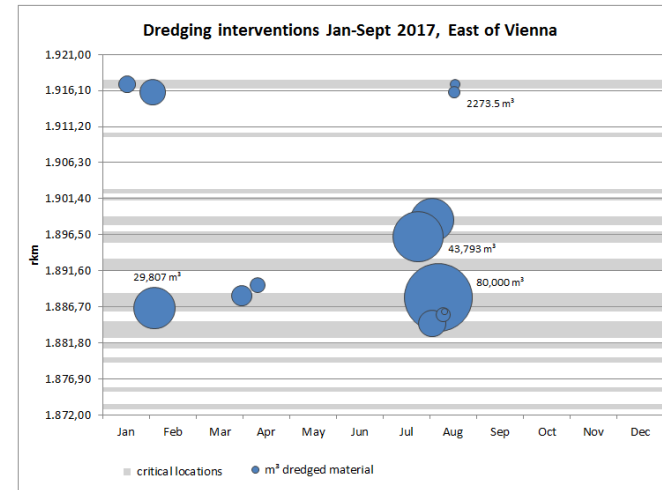
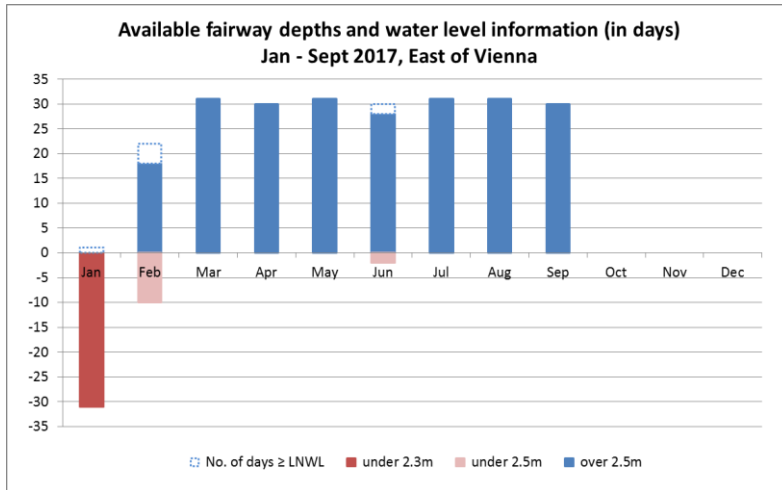
- No. of days on which 2.5m fairway depth would have been possible due to the hydrological conditions (No. of days \geq Low Navigable Water Level)
- No. of days on which 2.5m fairway depth were actually achieved (or not)

National Action Plan Update October 2017



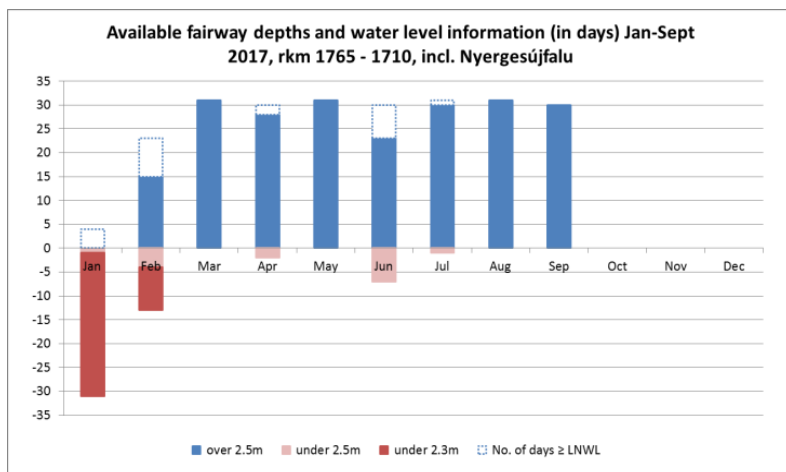
* In the free flowing section between Straubing and Vilshofen a fairway depth of 2.50m is neither developable nor maintainable. In this section the objective is to maintain the fairway depth of 2.00m related to Low Navigable Water Level. Depicted values in Germany therefore refer to 2,00m fairway depth.

Austria

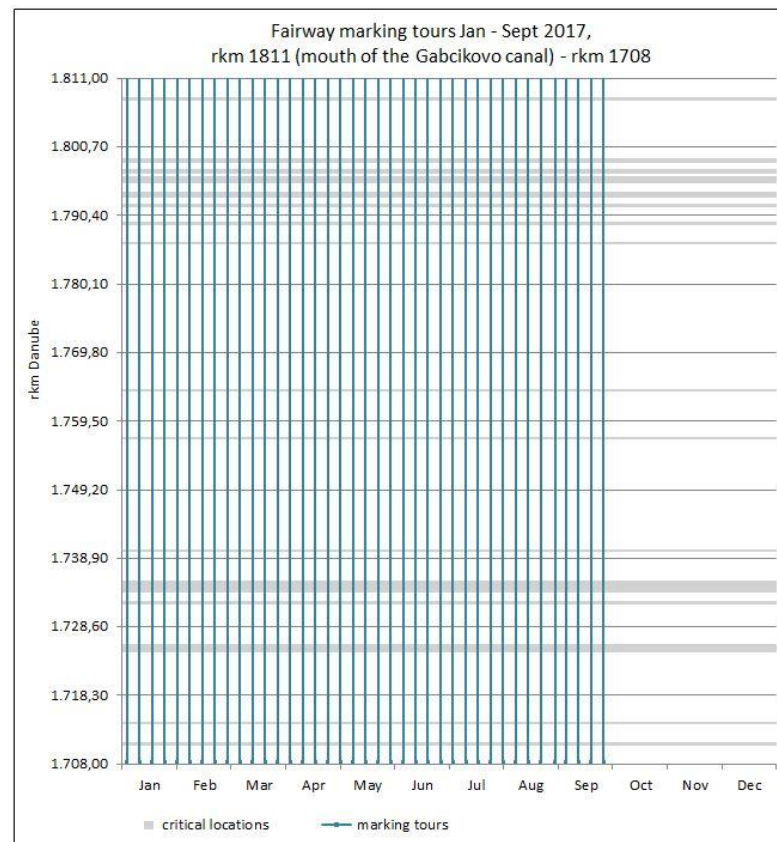


- Less dredging due to positive impacts of the river engineering measures East of Vienna

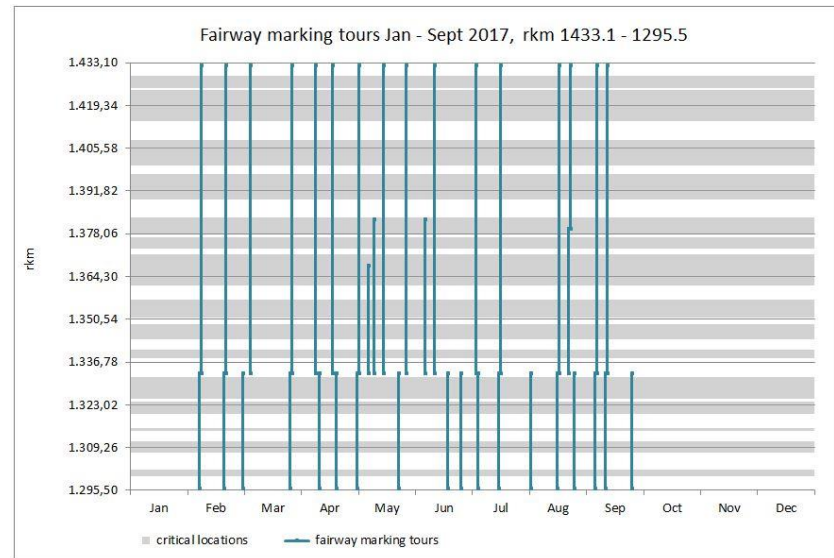
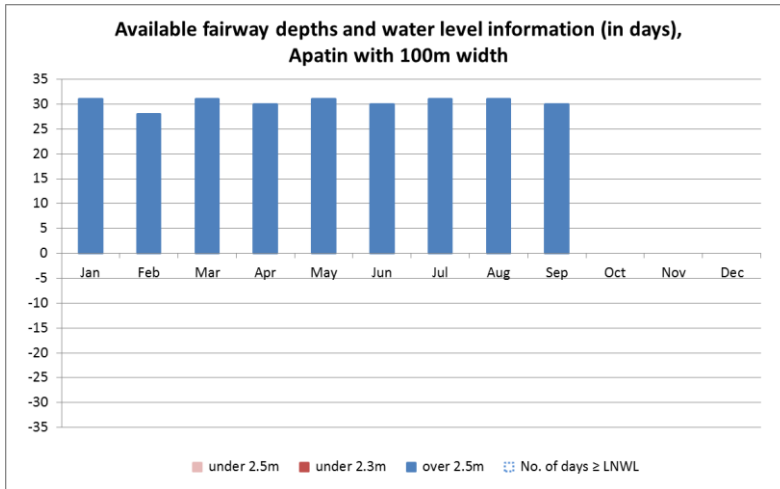
Slovakia



➤ Weekly marking tours

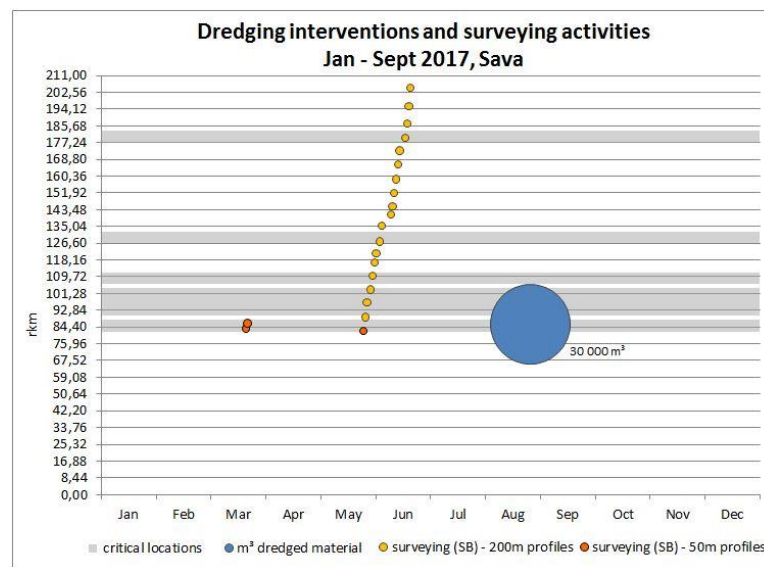
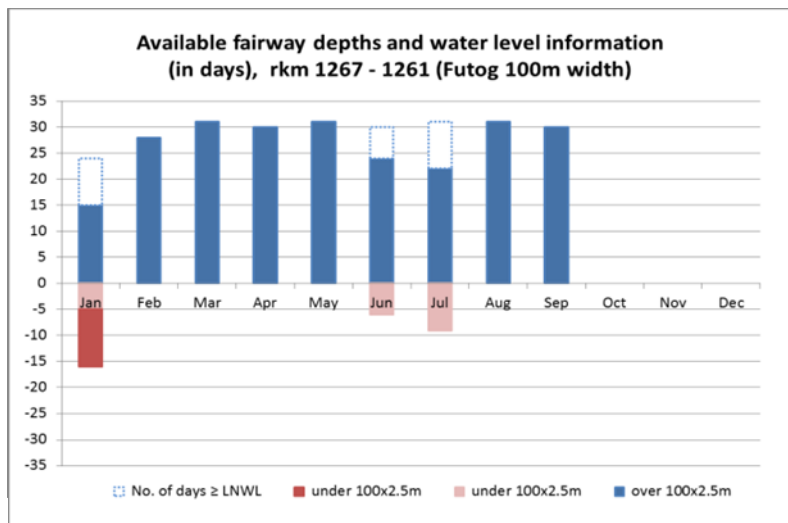


Croatia



- Stable conditions within the fairway limits of 100m width

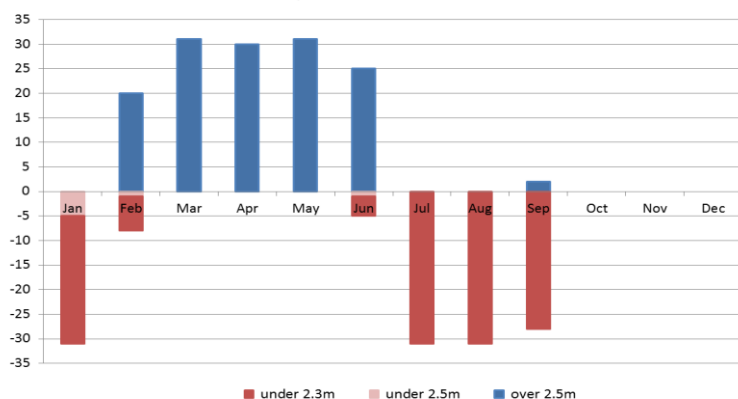
Serbia



- Reduction of fairway limits to 80m
- Dredging on the Sava

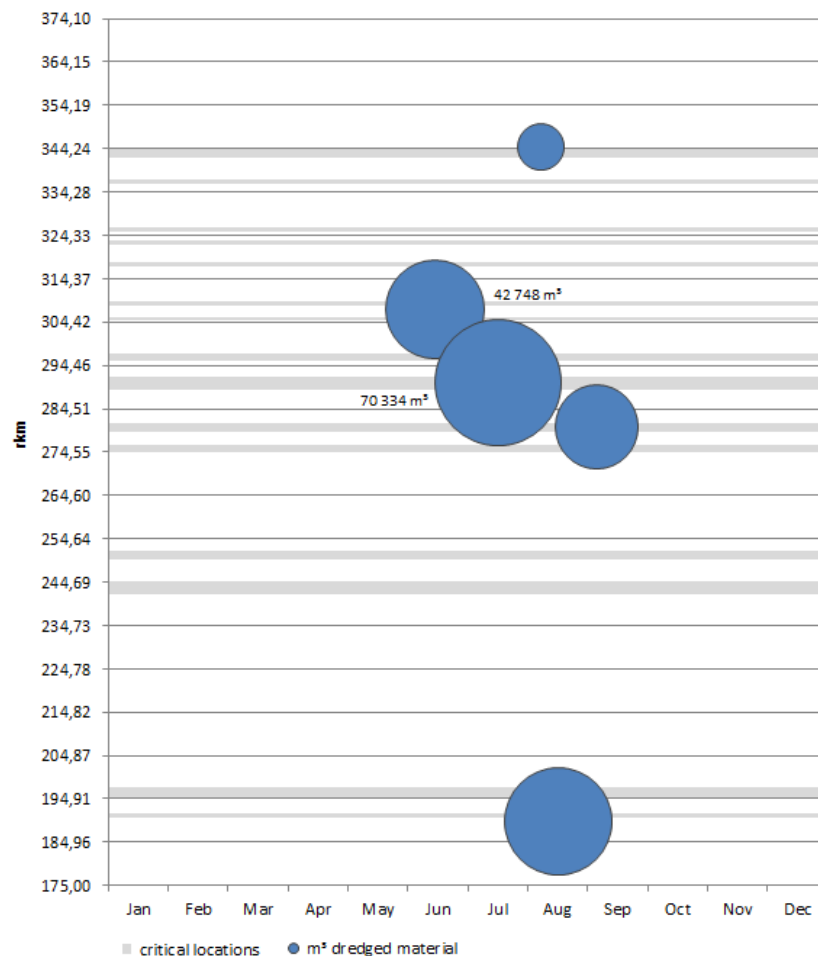
Romania

**Available fairway depths and water level information
(in days), rkm 309-308 (Cochirleni)**

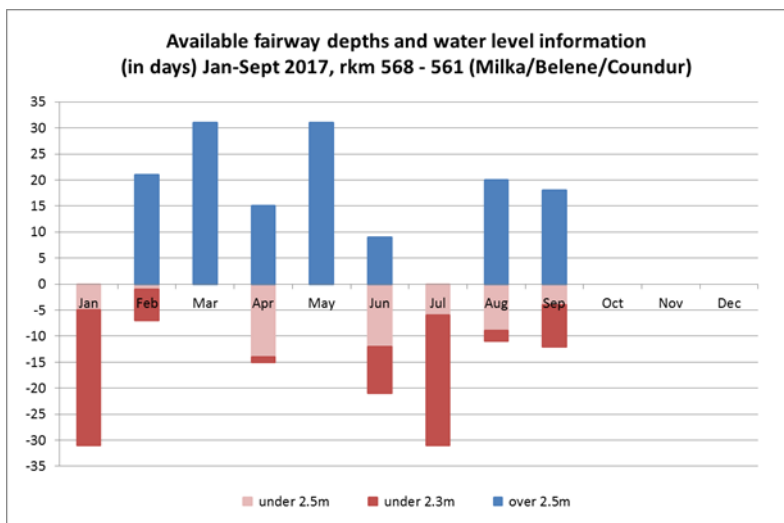


- Critical hydrological conditions in summer
- Dredging at most critical locations

Dredging interventions Jan - Sept 2017, rkm 374.10 - 175.00

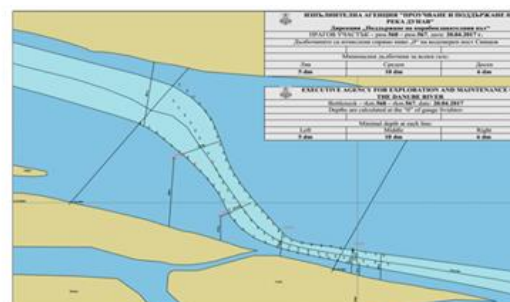


Romania

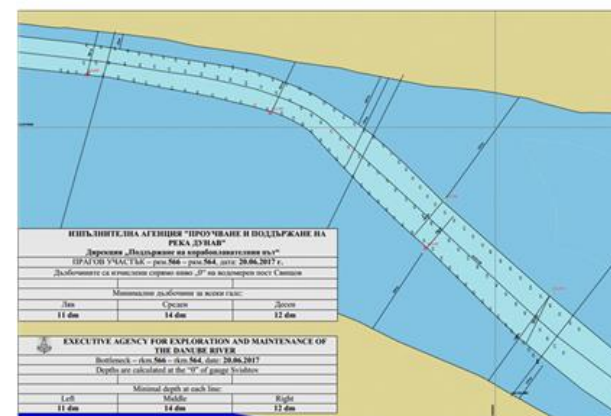


- Critical hydrological conditions in summer
- Fairway relocation at most critical locations

Milka Island – km 568 – km 564
Changing of the fairway trajectory on 20.06.2017

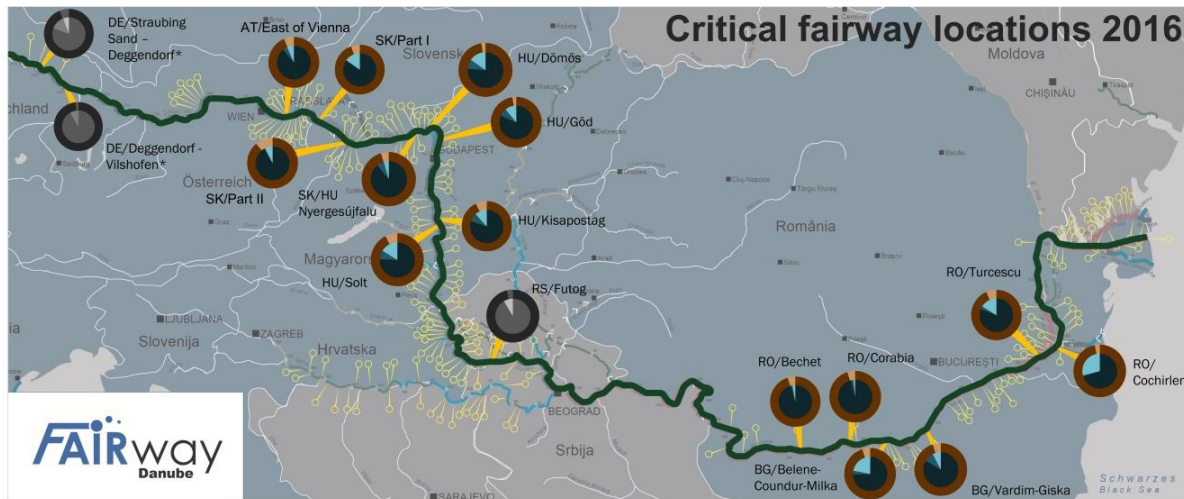


20.04.2017



20.06.2017

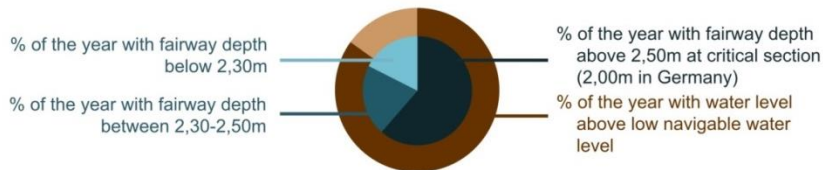
Critical fairway locations 2016



Critical fairway locations Jan-Sept 2017



- Is this in line with your experience?
- Any critical locations missing?



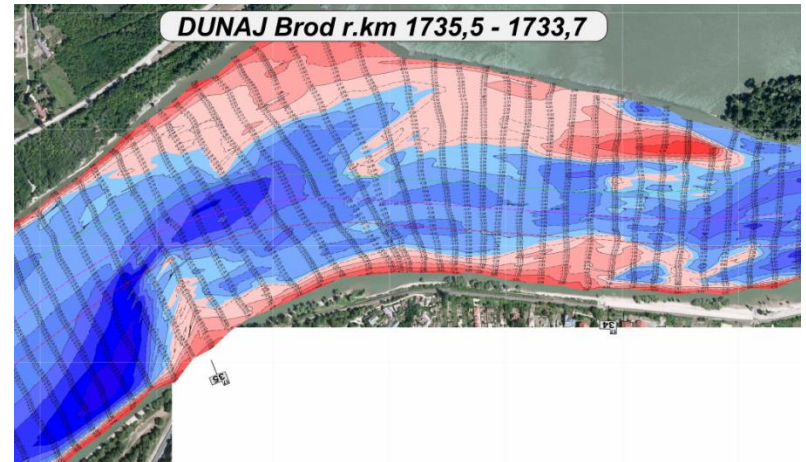
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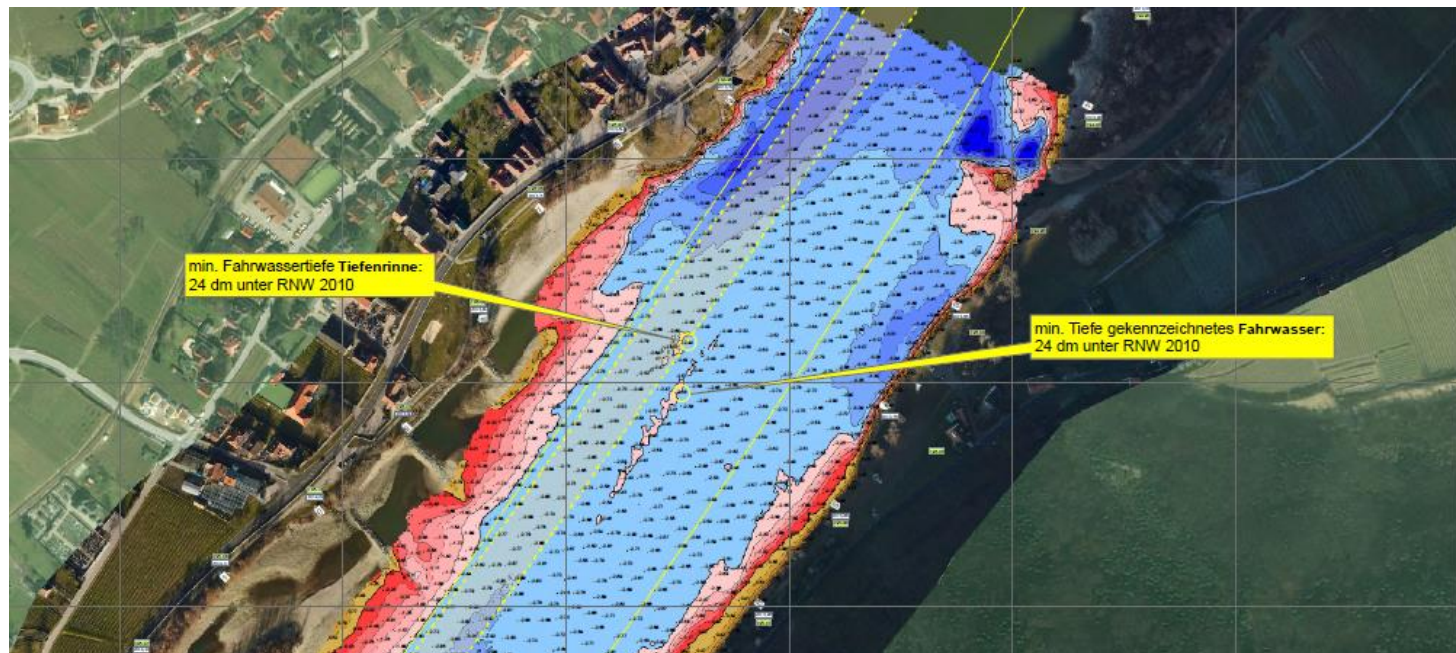
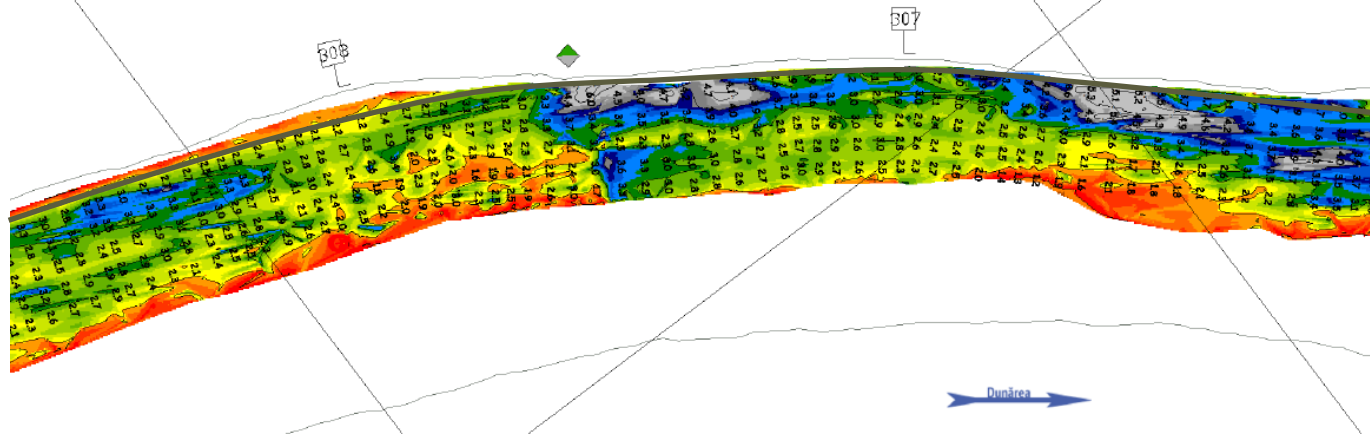
Solutions for the waterway users

- Rehabilitation / solving the bottleneck
- Improved maintenance procedures



- User information





PA1a coordinators



Austria

 = Coordinator

viadonau = Technical
Secretariat

Ursula Zechner

ursula.zechner@bmvit.gv.at

Gert-Jan Muilerman

gert-jan.muilerman@viadonau.org

Viktoria Weissenburger

viktoria.weissenburger@viadonau.org



Romania



MINISTERUL TRANSPORTURILOR

= Coordinator & Technical
Secretariat

Cristina Cuc

cristina.cuc@mt.ro

Monica Patrichi

monica.patrichi@mt.ro