

PLATINA 2

Manual on Waterway Maintenance

PLATINA 2 Final Event

05.02.2016, Brussels

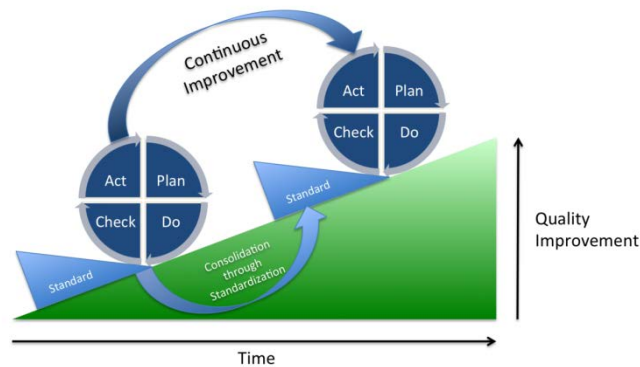
Gudrun Maierbrugger, viadonau

Background

- Continuous maintenance is key for competitive waterway infrastructure
- High potential existing to increase efficiency and effectiveness of maintenance
- **PLATINA 2 fosters knowledge exchange on inland waterway maintenance on European scale**
 - Set-up of a European expert platform
 - Preparation of a „Good Practice Manual on Inland Waterway Maintenance“



Good Practice Manual on Inland Waterway Maintenance



Sources: Johannes Vietze, viadonau

Good Practice Manual

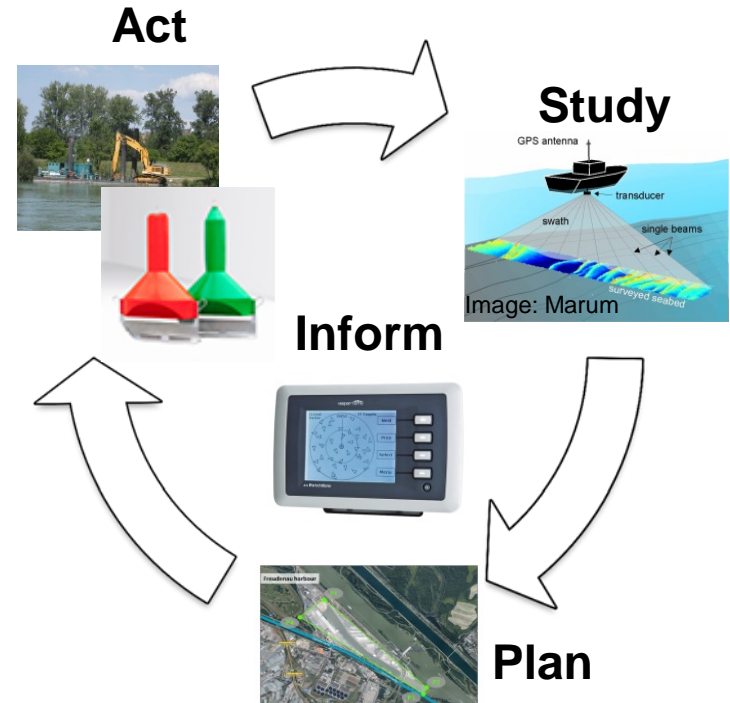


- Focus
Fairway maintenance (navigational) of free-flowing rivers
- Target group: European waterway administrations
 - Illustrate an improved fairway maintenance cycle
 - Exchange knowledge across corridors
 - Analyse examples from practice and identify “lessons learned”
 - Develop recommendations for efficient fairway maintenance
- Supervised by the PLATINA 2 European expert platform

Fairway maintenance cycle

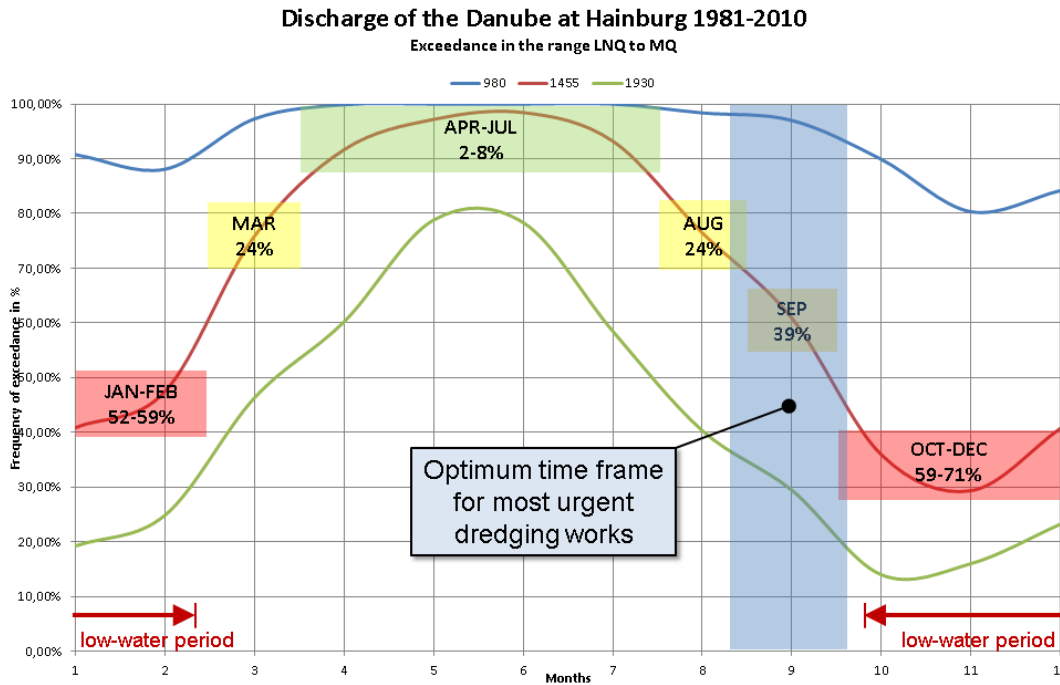


- Maintenance activities structured in a recurring cycle
- Continuous improvement process
- Multidisciplinary horizon



source: via donau

Fairway maintenance cycle



source: via donau

- Pro-active fairway maintenance
- Continuous deep fairway channel

- Minimum levels of service & Performance Indicators
- Priorisation of critical sections and activities



Fairway Maintenance Cycle: Good Practices

A	Rhine corridor	Coordination of maintenance works on the Rhine (CCNR)
B	Serbia - Danube	Establishing fairway parameters on the basis of levels of service
C	Danube corridor	Common minimum levels of service for waterway management
D	Germany - Rhine	“Rahmenkonzept Unterhaltung” (Framework Concept for Maintenance)
E	Belgium – Sea Scheldt	“Sustainable Maintenance Plan for the Upper Sea Scheldt”
F	D/NL - Rhine	Stabilisation of the Rhine Riverbed along the state border
G	Bulgaria, Croatia, Romania, Serbia	Corridor oriented fairway marking database
H	Austria - Danube	Multiannual framework contracts for dredging services
I	Austria - Danube	Development and implementation of a computer-assisted waterway management system

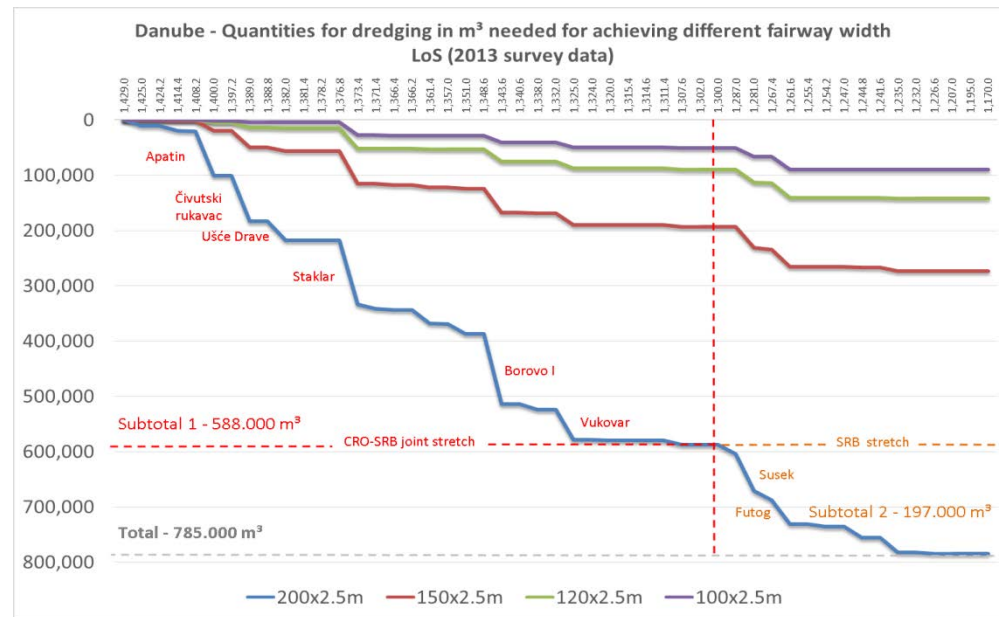


Fairway Maintenance Cycle: Good Practices

J	Germany	“HABAB” 2000 (Instruction for the handling of dredged material of inland sediments)
K	D/F - Rhine	Artificial bed load supply Iffezheim
L	Serbia - Danube	Responsive fairway realignment and fairway information
M	Germany	ELWIS - Electronic Waterway Information Service
N	Danube corridor	Bottleneck information on the Danube FIS Portal
O	Austria - Danube	Navigability Analysis of the Danube
P	France	Regular user committees on national and local level
Q	The Netherlands	User surveys on services of the National Waterway Administration

Good Practice: Serbia - Establishing fairway parameters on the basis of levels of service

- Support tool for management decisions established by PLOVPUT
- Integrated database (hydrographic & hydrological data, defined targeted levels of service for specific stretches – width, depth)
- Tool identifies the most efficient and effective measure to reach defined targets
- Options: fairway realignment, traffic regulations, dredging (m³)
- Parallel provision of integrated information on fairway availability to users



Source: PLOVPUT

Good Practice: D/NL - Stabilisation of the Rhine riverbed along the state border

- Riverbed degradation of the Lower Rhine along the German/Dutch border
- Cooperative cross-border project with mutual benefits and equally shared cost (start 2012):
 - The German “Wasser- und Schifffahrtsam” stabilized the Rhine riverbed on Dutch territory (Spijk area)
 - ~430.000 t of material (limestone, basalt) built in
 - „Catherina 6“: vessel equipped with harrow levelled the riverbed
 - Constant surveying for impact assessment and activity planning
 - Project also reduced flood risks
 - Rijkswaterstaat (NL) to start bed load supply (gravel and sand) on German territory (Lobith area) to balance the bed load deficit in 2016



Good Practice: Austria – Navigability Analysis of the Danube



source: via donau

- Long-term analysis of daily water level ranges since 1981 for two critical reference gauges - Pfelling (DE) and Wildungsmauer (AUT) by viadonau
- Basis for advice tool for industry and logistics to support transport planning in line with statistically most probable fairway conditions
 - Indicates probability of high or low water levels throughout the year
 - Indicates probability of available fairway depth and draughts for each month in relation to vessel and cargo type
- Facilitator for integration of IWT in transport chains based on economic considerations
- Very good feedback from users received

Good Practice Manual



- Lessons learned from practical examples in several corridors
- Synopsis: Recommendations for improved fairway maintenance applicable by waterway administrations
- Good Practice Manual and documentation of expert platform will be available for download on *www.naiades.info - infrastructure*

Summary



- Discussion of experiences from practice and cross-corridor knowledge exchange was highly appreciated by expert platform
- PLATINA 2 expert platform finalised
- Further topics in need of discussion identified, e.g.:
Lock maintenance, long term analysis of measures, interplay of structural & maintenance measures...
- Manual will be further developed within ongoing study on
Specification of Good Navigation Status (1/2016 – 12/2017)

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www.naiades.info
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Technical Secretariat of Priority Area 1a „Inland waterways“ within the Danube
Region Strategy – www.danube-navigation.eu



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