



Rijkswaterstaat  
*Ministerie van Infrastructuur en Milieu*

## PIANC & PIANC RIS guidelines



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**PIANC** "Navigation, Ports, Waterways"  
Inland Waterways Commission



## content

- Historical background RIS
- PIANC and the RIS Guidelines
- Evolution of RIS,
  - the challenges and
  - RIS towards multimodal information Services



# Origin of River Information Services

- Initial research in the context of the “sharing information”
  - Research on the technology and possible impact of providing vessel traffic management information via ICT (“shore based radar on board”)
- Initial research on the benefits of maritime developments for inland waterways
  - Synergy between the maritime concept in previous century (VTMIS) and RIS
  - Usability of AIS and ECDIS in inland waterways



## Historical context

- The EC supports since 1996 RIS research projects and implementation studies
- PIANC installed a working group on River Information Services in 1998.
- Central Rhine Commission (CCNR) installed in 2004 a RIS working group and formalized the PIANC RIS guidelines and RIS standards
- UN ECE and Danube Commission followed the initiative of the CCNR.
- In October 2005, the EU RIS Framework Directive of the European Union (2005/44/EC) entered into force.
  - Applicable to all waterways of class IV or higher
  - Binding rules for authorities on the implementation of RIS
- River Information Services are nowadays in an implementation stage in North and South America, Europe and Asia



# PIANC working group on River Information Services

- PIANC installed in 1998 the first work group on River Information Services in cooperation with IALA
- The second edition of the PIANC RIS guidelines (2004) is adopted by the European Commission as Commission Regulation 414/2007
- The Permanent working group on River Information Services (PWG125) is working now on:
  - Status report of implementation of RIS in USA, Asia, South America and Europe
  - RIS related definitions 2018 edition 2
  - RIS Guidelines 2018 edition 4.
- Members from USA, Russia, China, Vietnam, Austria, Belgium, France, Hungary, Germany, Poland, Netherlands, Czech Republic, Spain and CCNR.



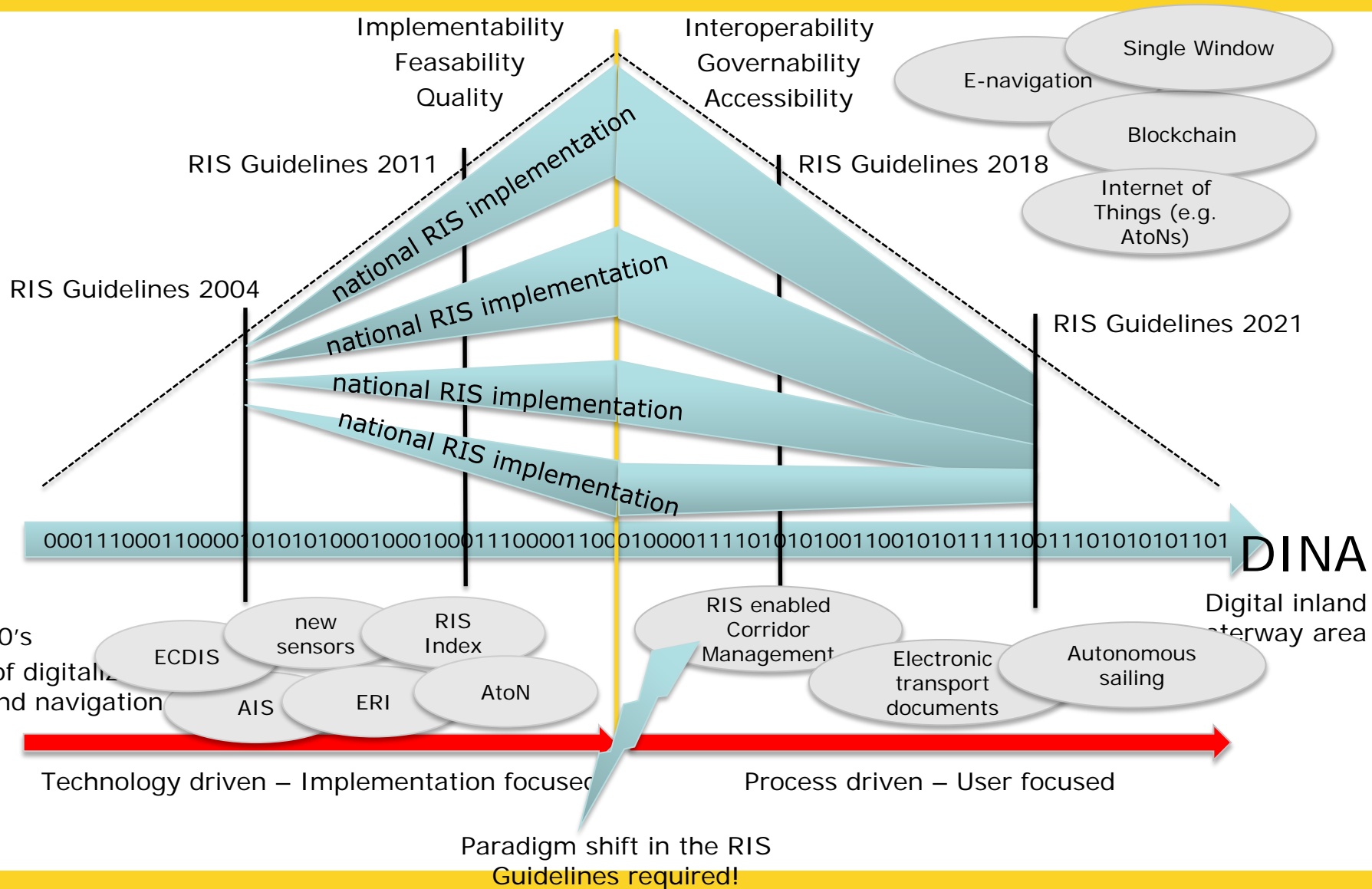
# RIS LifeCycle and the PIANC RIS Guidelines

- 1996-2005: focus on research and development
  - PIANC RIS guidelines edition 1 and 2 based on research results in European context
- 2005-2010: focus on technologies
- 2010-2015: focus on traffic management related services
  - PIANC Guidelines 2011 edition 3 based on experiences on implementation of RIS key technologies and initial basic services
- 2010-2020: focus on traffic & transport management services
  - PIANC Guidelines 2018 edition 4 based on world wide experiences on implementation of services
  - Development of Corridor Management
  - Synergy and benefits of e-Navigation for RIS
- 2020-2030: Information services in a multimodal transport world.

# The evolution of RIS



# and the RIS guidelines





## Some conclusions w.r.t. the RIS Guidelines 2018

- The RIS guidelines version 2018 will be more globally oriented as the RIS guidelines 2011 and earlier versions are too much focused on Europe.
- e-Navigation is a maritime concept relevant for inland navigation, the synergies between RIS and e-Navigation are to be deployed.
- Further development of RIS towards multimodal information services is required for the benefit of inland navigation as important mode in the transport chain.
- The working group proposes PIANC to install a special working group on ITS for inland waterways.
- There are many developments which are challenges for the RIS domain in the coming years and they require attention of the RIS community.





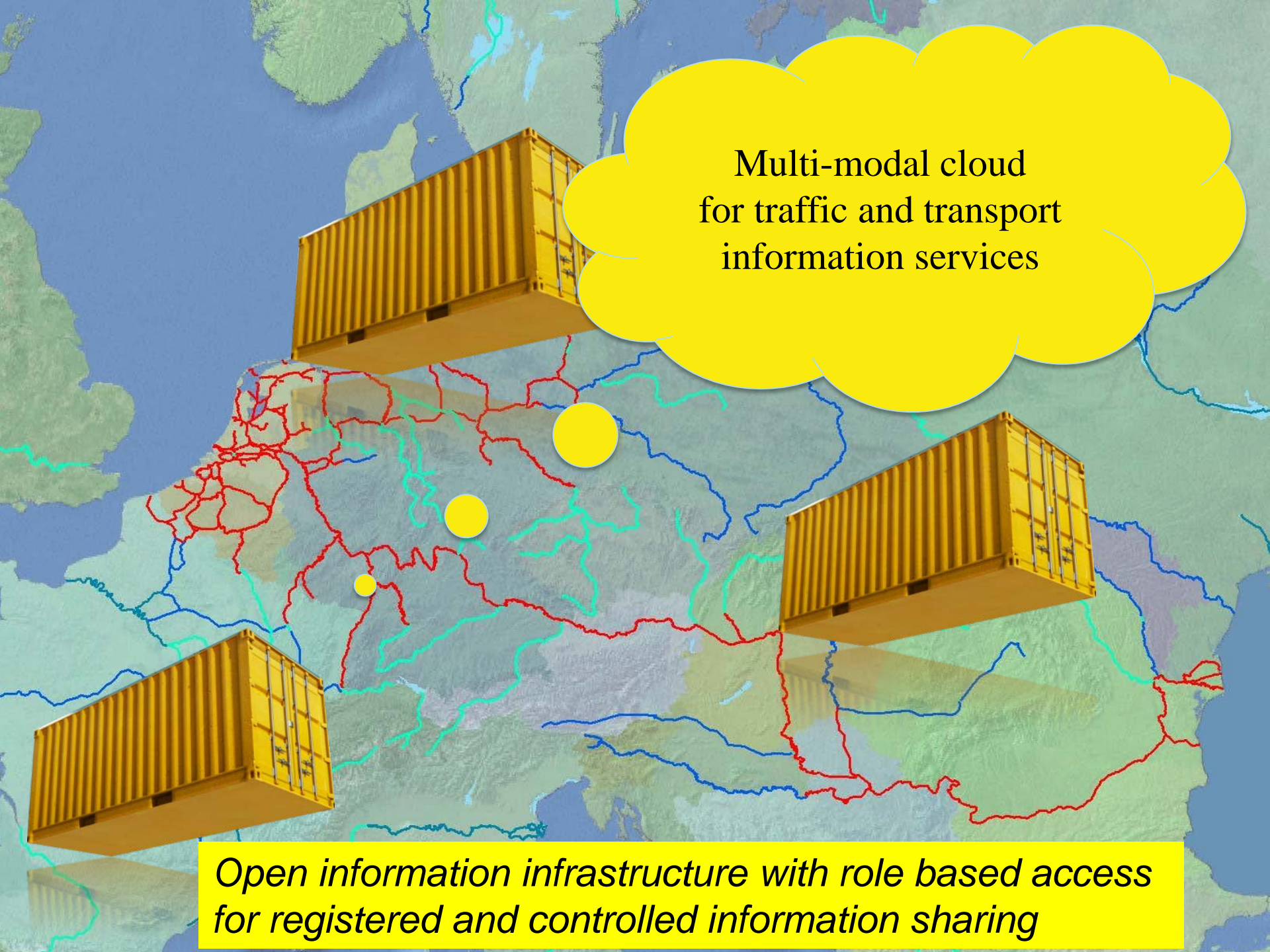
## challenges

- Standardisation, interoperability, interconnectivity and proprietary solutions
- Improve the quality and reliability of traffic and transport data
- Innovative solutions (IoT, Blockchain)
- Short and medium term solutions (autonomous sailing)
- Privacy and building confidence, stakeholder acceptance (“legal” issues)
- Cooperation between private & public partners
- Cybersecurity



# The next RIS step: Intermodal Transport Information Services





Multi-modal cloud  
for traffic and transport  
information services

*Open information infrastructure with role based access  
for registered and controlled information sharing*



**Questions?**

**or**

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