

**International Navigation Association  
Inland Navigation Committee  
Working Group 156**

# **e-Navigation for Inland Waterways**

## **RIS Common Issues Meeting**

**Lille – 25/11/2015**



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# Overview

- What is a PIANC Workgroup and how does it works
- Introduction ToR WG156
- Objectives of WG156
- Final Product
- Work programme
- Intermediate Results



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# PIANC is ...

## *THE World Association for Waterborne Transport Infrastructure*

- PIANC is the forum where **professionals around the world join forces to** provide expert advice on cost-effective, reliable and sustainable infrastructures to facilitate the growth of waterborne transport. **Established in 1885**, PIANC continues to be the leading partner for government and private sector in the design, development and maintenance of ports, waterways and coastal areas.
- As a **non-political and non-profit organisation**, PIANC brings together the best international experts on technical, economic and environmental issues pertaining to waterborne transport infrastructures. Members include national governments and public authorities, corporations and interested individuals.



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# What is a PIANC Workgroup like WG156

- A PIANC Workgroup (WG) can be started after the submission of a Terms of Reference (ToR) to the respective PIANC commission, for example InCom, and after approval by the commission.
- After approval find members(experts) to participate in the WG.
- Define a Work Programme which has to be approved by the respective PIANC commission.
- Do the job, provide report to respective PIANC commission.
- After approval the report will be published and made available for a wide audience.
- Participating and working in a PIANC Workgroup is on a voluntary basis.



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# Introduction ToR WG156 - I

- Background:
  - ToR WG156 is originated from WG125 – Guidelines and recommendations for River Information Services (RIS) - 2011.
  - WG125 was really focused on inland waterways. But during the working process it became clear that it could be very useful to look also at the realisations and implementations in the maritime world.



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# Conceptual Development I

- The Maritime Safety Committee of IMO (International Maritime Organizations) initiated the development of a vision with respect to ***e-Navigation*** with the following definition:

*“the harmonized collection, integration, exchange, presentation and analysis of marine information onboard and ashore by electronic means to **enhance berth to berth navigation** and related services for safety and security at sea and protection of the marine environment”*



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# Conceptual Development II

- IALA installed a working group of their VTS committee to define and develop a VTM concept. The working definition of VTM is defined as:

*“Vessel Traffic Management is the functional framework of harmonized measures and services to enhance the safety, security, efficiency of shipping and the protection of the marine environment in all navigable waters”.*



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# Conceptual Development III

- The European Commission has published a Communications: (COM92009) 8 – Strategic goals and recommendations for the ***EU's maritime transport policy until 2018***. In this communication it called for the development of the ***e-Maritime*** concept, defined as:

*“e-Maritime represents a **set of policies, strategies and capabilities** facilitating online or electronic interactions between all different stakeholders involved in the development of an efficient and sustainable waterborne transport system throughout Europe, fully integrated within the transport logistic chains”*



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# Objectives of WG156

- WG156 is required to investigate and advise PIANC on the following topics based upon the report prepared by PIANC WG125 and to consider the technical issues associated with the integration and associated development of RIS in a seamless manner to the above concepts :
  - Provide a definition of e-Navigation for Inland Waterways
  - Whether inland navigation could benefit from the developments in the maritime environment.
  - In what way the required interaction between maritime transport and inland navigation in this context can be guaranteed to safeguard the required interoperability of future maritime and inland navigation systems.
  - What the implications for River Information Services and the PIANC guidelines on RIS are.
  - Identify where possible the scale of benefits, costs of the elements and the risks.
  - Identify opportunities for improving the efficiency of transport, logistics and administrative processes.



# Final Product

- The findings of the Working Group will be published in a report that will form the basis of future dialogue with operators, regulators and users of RIS to continue the future development and implementation of RIS systems that will interface with VTM and the development and use of both e-Navigation and E-Maritime as outlined above.
- The report will be widely circulated and via the PIANC website and by direct communication with major stakeholders such as the EU, IMO and IALA.



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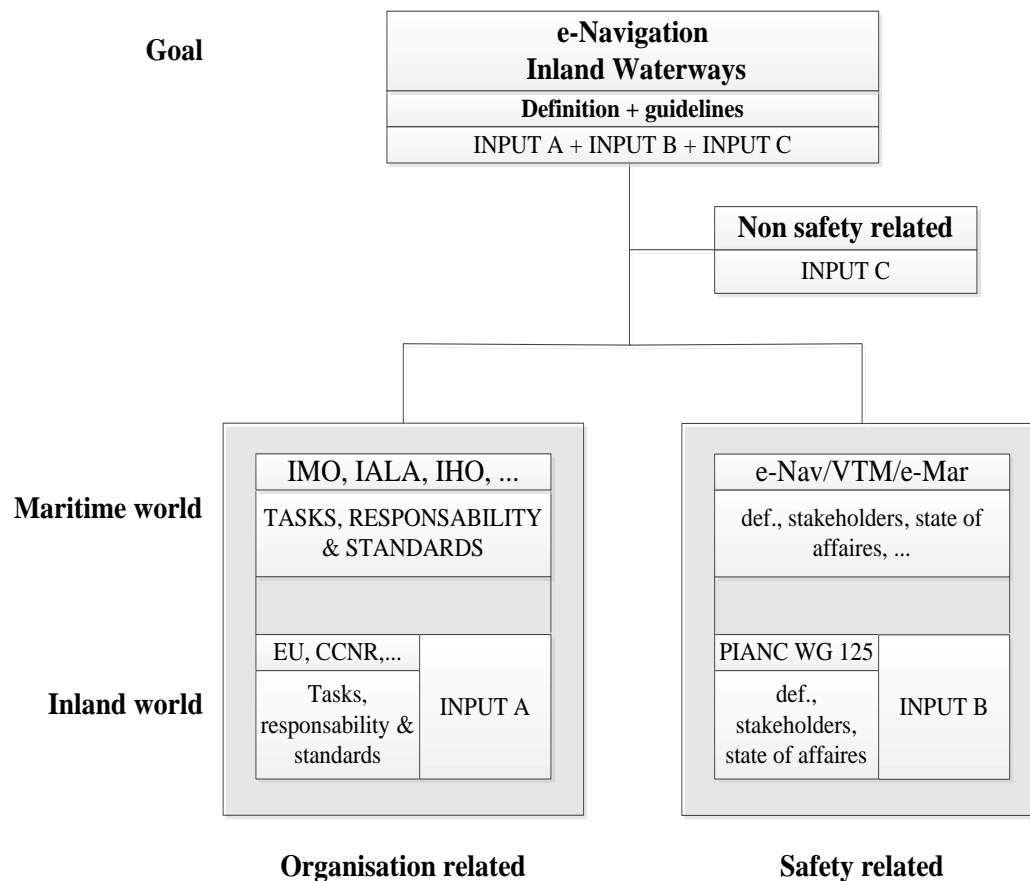
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# Work Programme - I

## Global overview and approach WG156



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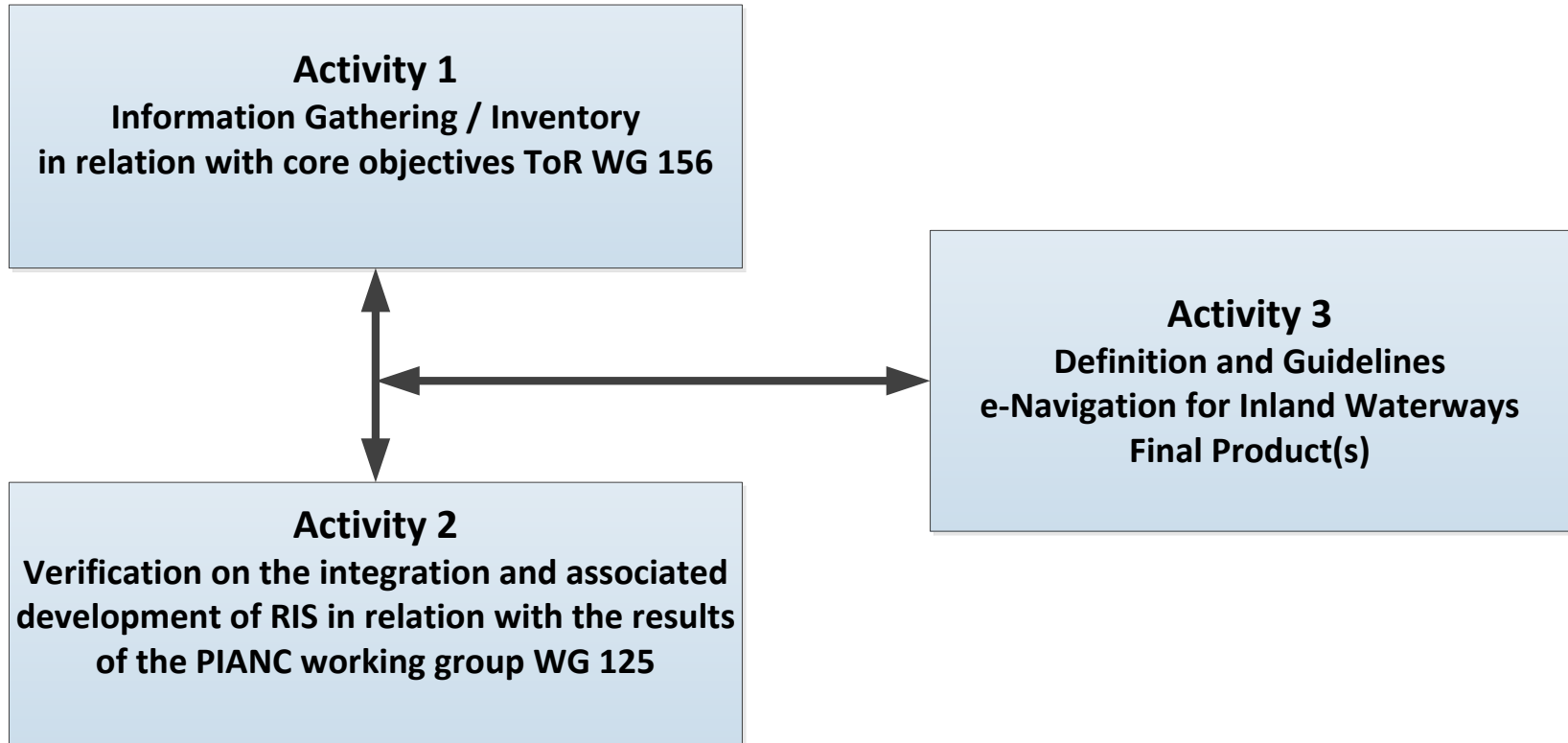
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# The Work Programme – Task Description - II



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# The Work Programme – Task Definition - III

Task ID	Description
0	Starting-up WG 156 and preparing Kick-Off Meeting
1	Reporting to InCom on the status of the Working Group
2	Define Work Program and Division of the different tasks between the members of the Work Group
3	Update/Follow-up of the different tasks executed by the members of the WG156
4	Activity 1: Overview and description of involved official organisations (IMO, IALA, EC....) and standards/directives/regulations in relation to the ToR



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# The Work Programme – Task Definition - IV

Task ID	Description
5	Activity 1: Information gathering/Inventory e-Navigation
6	Activity 1: Information gathering/Inventory Vessel Traffic Management
7	Activity 1: Information gathering/Inventory e-Maritime
8	Activity 1: Overview of projects/initiatives (realized, ongoing, pipeline, ...) in relation to the ToR
9	Activity 1: Standards/regulations for data exchange, information sets, protocols, security, privacy,... in relation to the ToR



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# The Work Programme – Task Definition - V

Task ID	Description
10	Activity 2: Guard the results of Activity 1 and 3 to be compliant with the results of WG125 and/or define the necessary adjustments and/or extensions for the PIANC Guidelines WG125 to be compliant with WG156.
11	Activity 3: Aligning and evaluating the results of activity 1 for activity 3 with the core objectives of the ToR. When necessary adjust Activity 1 to retrieve the needed information.
12	Activity 3: Draft version of the final product(s)
13	Activity 3: Alfa version of the final product(s)
14	Activity 3: Final version of the final product(s)
15	Investigate possible impacts of climate change – findings and recommendations

# Intermediate Results



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# Definition e-Navigation for Inland Waterways

***e-Navigation for inland waterways** is the framework of information service components based on services for inland (RIS) and maritime waterway transport in order to enable harmonised collection, integration, exchange, presentation and analysis of navigation and logistics related information on board and ashore by electronic means to enhance safe, efficient, reliable, and environmentally responsible navigation on inland waterways and intermodal connections.*

The main focus of e-navigation for inland waterways is on **interoperability** of information services between the different modes of transport.



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# Need for a Framework

- In order to establish e-Navigation for inland waterways a framework of several measures needs to be established. The framework comprises:
  - The establishment of a global RIS Architecture (with focus on interoperability)
  - The establishment of a RIS Service Directory including dedicated and reusable RIS Service Components. The RIS Service Directory contains the complete inventory of information services that are part of RIS including information on the applicable Standards / Formats and the technical accessibility of the service.
  - The establishment of a RIS Registry. The RIS Registry follows the principle of the IHO S-100 Registry for the registration, management and maintenance of the various dictionaries of items recognised under the RIS framework (compare <https://registry.iho.int/> and [https://www.iho.int/iho\\_pubs/standard/S-100/S-100\\_Info.htm](https://www.iho.int/iho_pubs/standard/S-100/S-100_Info.htm))
  - The establishment of RIS product and service specifications, where interoperability requires it. The product and service specifications are part of the RIS Registry.
  - The establishment of methods for data exchange (how it is done on a procedural level)
  - A communication strategy for the promotion of e-Navigation services and specifications for end users.



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# Reports for the different Tasks

- Reports for discussion based on the Tasks:
  - Definition of e-Navigation for IWT (finished)
  - Risk Management
  - Overview/Description of involved official organisations/standards/directives/regulation
  - Technical Report on e-Maritime
  - Overview of projects / initiatives in relation to the Terms of Reference
  - Standards/regulations for data exchange, information sets, protocols, security, .....
  - Navigation and intermodal efficiency
- Table of Content for the final report



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# Next Steps

**Work in Progress and Finalize the job  
before 30/06/2016**



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# Thank you for your attention

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