PIANC releases its first report on automated and autonomous shipping: Smart Shipping on Inland Waterways.

As digitalization broadens the possibilities for new business developments, smart shipping solutions are finding their way into the market, ranging from the development of inland waterway vessel trains, remote controlled ships to small(er) drone-like platforms for transportation of goods and people.

The new report focused the interactions between autonomous vessels and the infrastructure, the role of the authorities and regulations with regard to Smart Shipping. Smart shipping developments were viewed from the perspective of infrastructure providers and traffic managers of inland waterways to stimulate and maximize the deployment of smart shipping. An overview of recent smart shipping developments and use cases were analyzed in order to define the gaps that are prohibiting the further deployment of smart shipping developments. Possible solutions to cope with these gaps and recommendations for the future were described. These can be picked up in other PIANC working groups or research groups.

Lea Kuiters and Ann-Sofie Pauwelyn, the chairwomen of WG 210 said “The main task of this working group was to come to a common understanding of smart shipping on inland waterways, its possibilities, and its influence on tasks of the waterway authority like lock operation and vessel traffic management. With this report we invite others to join the discussion and think about how the future of inland waterways could look like.”

Matters investigated:

• What information is necessary on board of a ship and ashore (authority tasks)?
• What information is already available on board, on shore and what needs to be exchanged?
• What should be the quality of the data (accuracy, completeness, availability, …)?
• What is the impact of smart shipping on the infrastructure, both physical and digital (ICT, sensors on the infrastructure)?
• In what way will the services of fairway authorities change in case of a hybrid situation (where both man-steered and autonomous vessels are present) and full autonomous navigation?
• What is the impact of smart shipping on regulations [crew, equipment on board,...], liability, the environment?
• What should a fairway authority do in case of smart shipping to maintain the safe, efficient and sustainable use of the waterway?

Notes to Editor

PIANC is the global organisation providing guidance and technical advice for a sustainable waterborne transport infrastructure to ports and waterways. Established in 1885, PIANC unites the international experts for technical, economic, and environmental topics related to waterborne transport. Our members include national governments and public authorities, corporations, industry and academic experts and young and experienced professionals.

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