



Smart Shipping IWT in Germany

UNECE, SC.3/WP.3

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What we done in Germany?

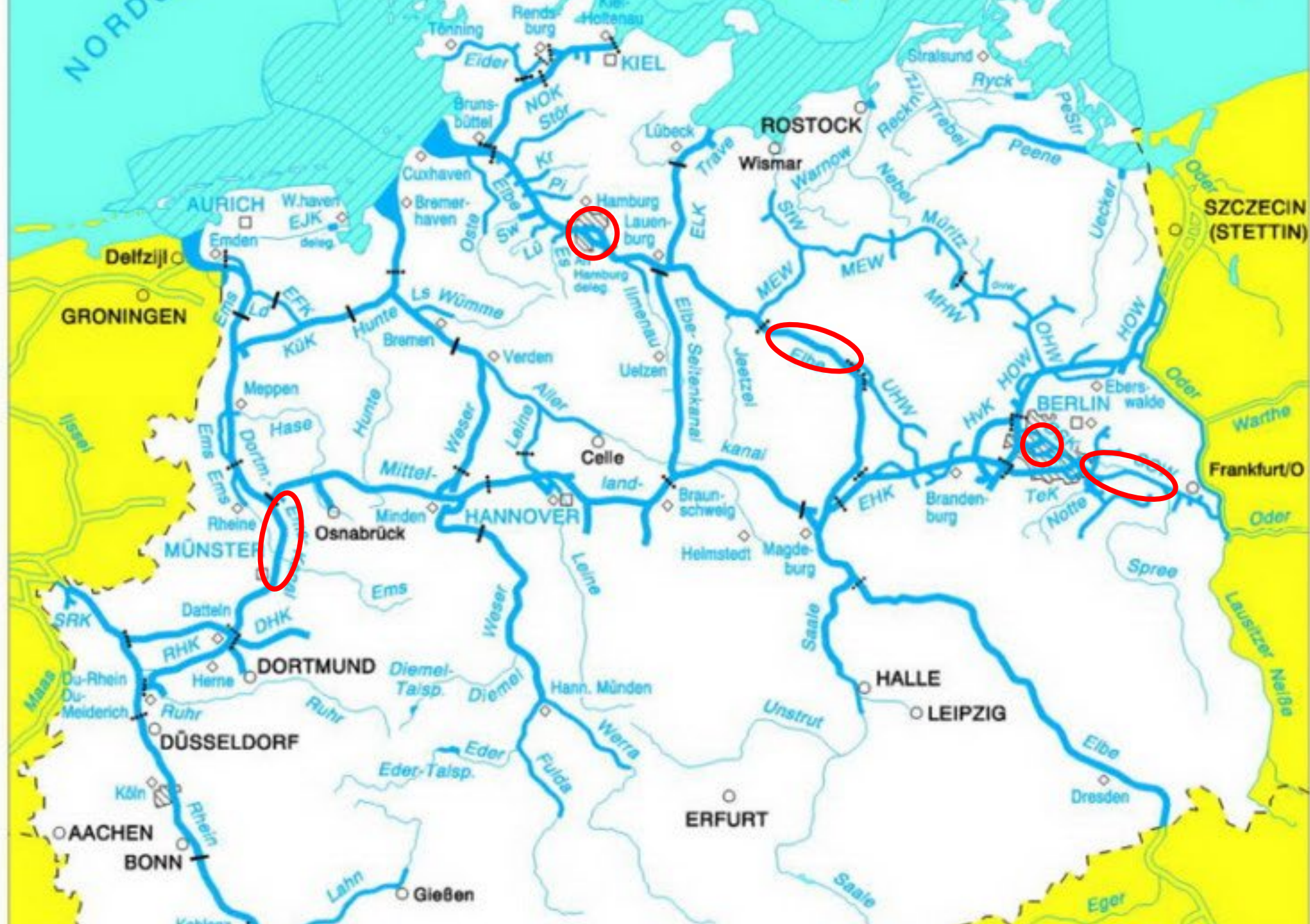
- **AIS roll-out on nearly all navigable inland waterways**
- **AIS and data regulation by German government**
- **A few research projects on smart shipping are still running e.g. COMEX, RISCOEX, LAESSY, SCIPPPER**



Political Agenda

- **New German government proposes a rapid digitalization in IWT**
- **Set up a Masterplan for IWT**
- **Set up an Actionplan for AI – Foster Automated and Autonomous IWT**
- **Defining testing areas:**
 - Dortmund-Ems Canal (near Rhine)
 - River Elbe
 - Spree-Oder-Waterway near Berlin
 - Hamburg Port





What we plan to do?

■ Competence Center for Autonomous IWT in North-Rhine-Westfalia

- Collecting all relevant expertise from several universities and research institutions around Duisburg
- Funded by regional government – building a competence center
- Perspective 2-5 years for demonstrator



What we plan to do?

■ Project of Automated and Autonomous IWT near Berlin

- Working together with German waterway administration, bringing them into force and seat for autonomous IWT
- Clear vision on autonomous IWT – precise satellite positioning, AIS/VDES, 5G communication, remote control on vessels, remote lock management etc.
- Building up testing field 2020 ff – parallel adaption of regulation
- Additional path in Berlin City:
approach with small autonomous vessels, full-equipped, using AI



What we plan to do?

■ Elbe 4.0

- Challenge to plan and test smart shipping on river
- Elbe on most of the rivers without locks
- General challenge of low water
- Digitalisation of IWT as a chance to use Elbe better for IWT
- Elbe very critical political topic (NGO's)

