



## GIS Applications based on RIS

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## *GIS Applications based on RIS to ease Life of Captains and to Better Promote Potentials to Industry and Shippers*

- **RIS – Digitalisation in inland navigation**
- **ELIAS – German EMMA prototype**
- **From Vision to Reality**

## *RIS – Digitalisation in inland navigation*

*“River Information Services (RIS) are **information services** designed to **enhance safety and efficiency** of inland waterway transport (IWT) by **optimising traffic and transport processes.**”*

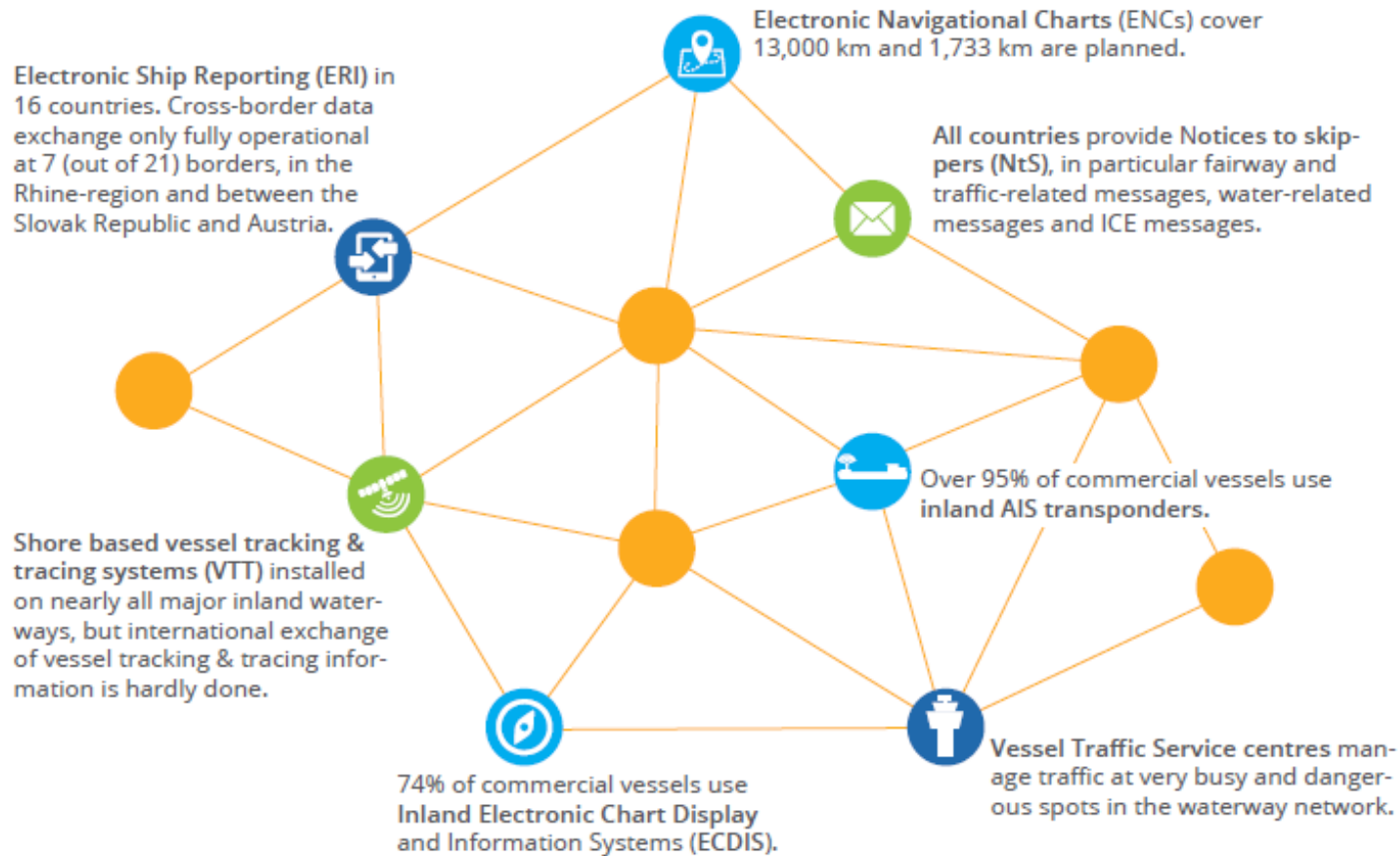
RIS defines four core services:

- Navigational charts (ENC & ECDIS)
- Electronic Reporting (ERI)
- Notices to Skippers (NtS)
- Vessel Tracking & Tracing (VTT / AIS)

source: <http://www.ris.eu/>



## River Information Services today



source: <http://www.inlandnavigation.eu/what-we-do/digital-policy/>

RIS implementation well advanced

in many countries in terms of:

- geographical coverage
- service maturity
- industry uptake

But challenges remain:

- International exchange of information
- Lack of integration
- Little benefit for transport & logistics



## *River Information Services tomorrow*

**Corridor Management** as a concept aims at improving and **linking existing RIS services** on a route or network in order to supply RIS not just locally, but on regional, national and international level.

Therefore, Corridor Management will realise support for

- route & voyage planning,
- traffic management
- transport management

which are at present, if at all, just **available in fragments**.

source: <http://www.riscomex.eu/vision/>

Three service levels are defined:

- Level 1: provides basic infrastructure & fairway information
- Level 2: provides traffic information for voyage planning and traffic management
- Level 3: supports transport management of the logistic partners (e.g. deviation management)

*ELIAS – German EMMA prototype*

**Our Goal: Develop an IT prototype combining RIS data with traffic flow relevant information to achieve better traffic management to have more efficient IWT in BSR**

- strengthen IWT through improved competitiveness
- improve competitiveness through increased reliability and efficiency
- ELIAS collects, aggregates & publishes available RIS information:
  - Static information (waterways, locks, bridges, ports, terminals & other facilities)
  - Status of infrastructure (water levels, obstructions such as maintenance work)
  - Traffic situation (traffic density, lock waiting times, vessel positions)

## ELIAS Functions

Map

eliasis.org

Emma Elias Map Login

# ELIAS

Inland Waterway Information System

Latest NTS message 2699 / 2018

OBSTRU / WORK 05.11.2018

Elbe-Seitenkanal - Uelzen

OBSTRU

Position: AL Period: 05.11.2018 07:30 - 05.11.2018 14:30

Die Schleuse Uelzen 1 wird wegen dringender Reparaturarbeiten am 05.11.2018 von 07:30 Uhr bis 14:30 Uhr gesperrt. In der genannten Zeit kommt es zur Vollsperrung der gesamten Schleusenanlage.

Recent Lock Statistics

Doppelschleuse Geesthacht

Lock Area

Elbe (hm 0-7277)

Passage times (minutes)

Date	Passage times (minutes)
20-10-2018	~50
21-10-2018	~80
22-10-2018	~100
23-10-2018	~80
24-10-2018	~120

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Interreg Baltic Sea Region

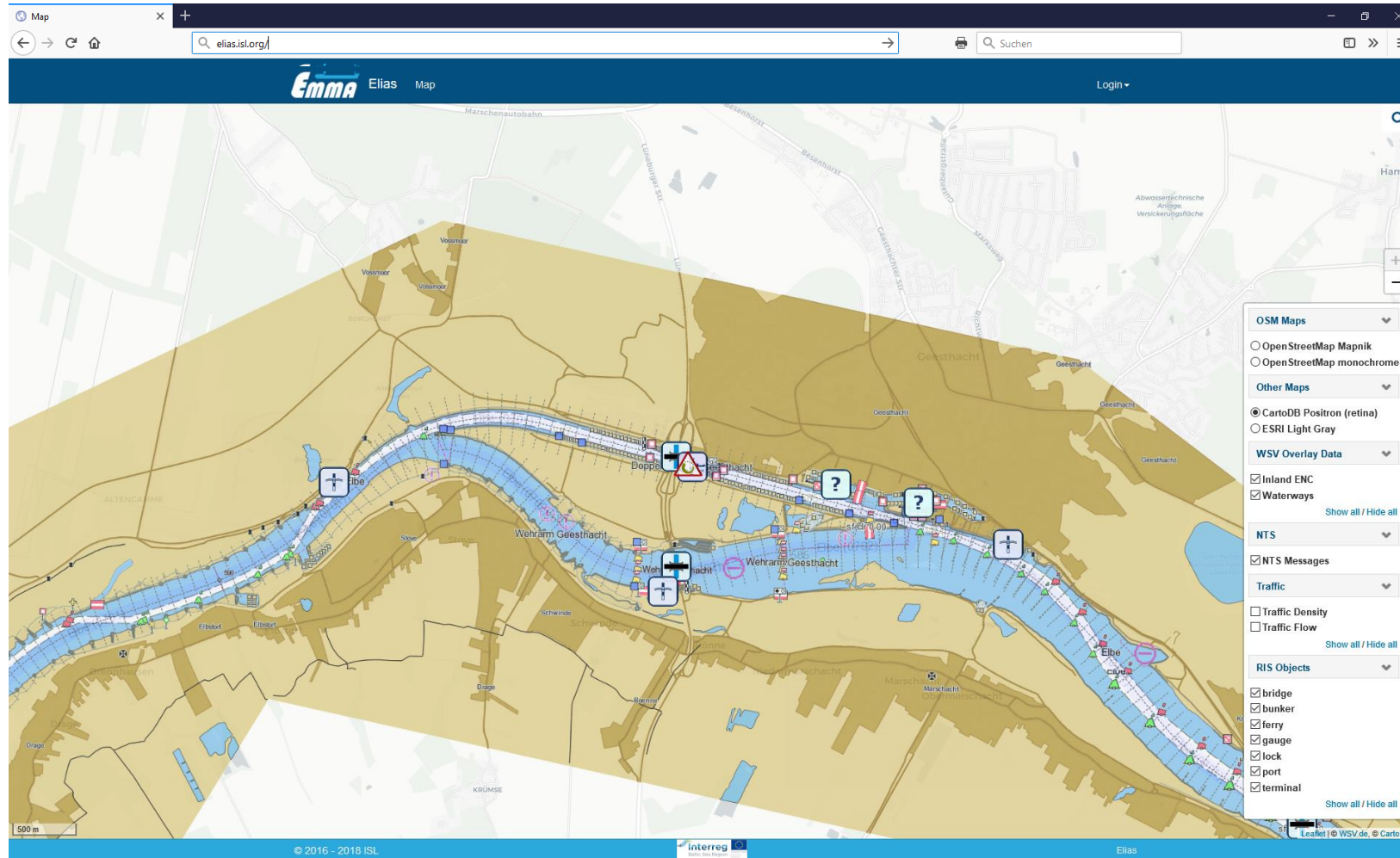
EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND

Elias

Interactive web map application

- ENC overlay
- Infrastructure information (RIS Index)
- Water level information
- Lock passage time statistics
- Traffic flow
- Traffic density
- NtS messages

## ELIAS Functions

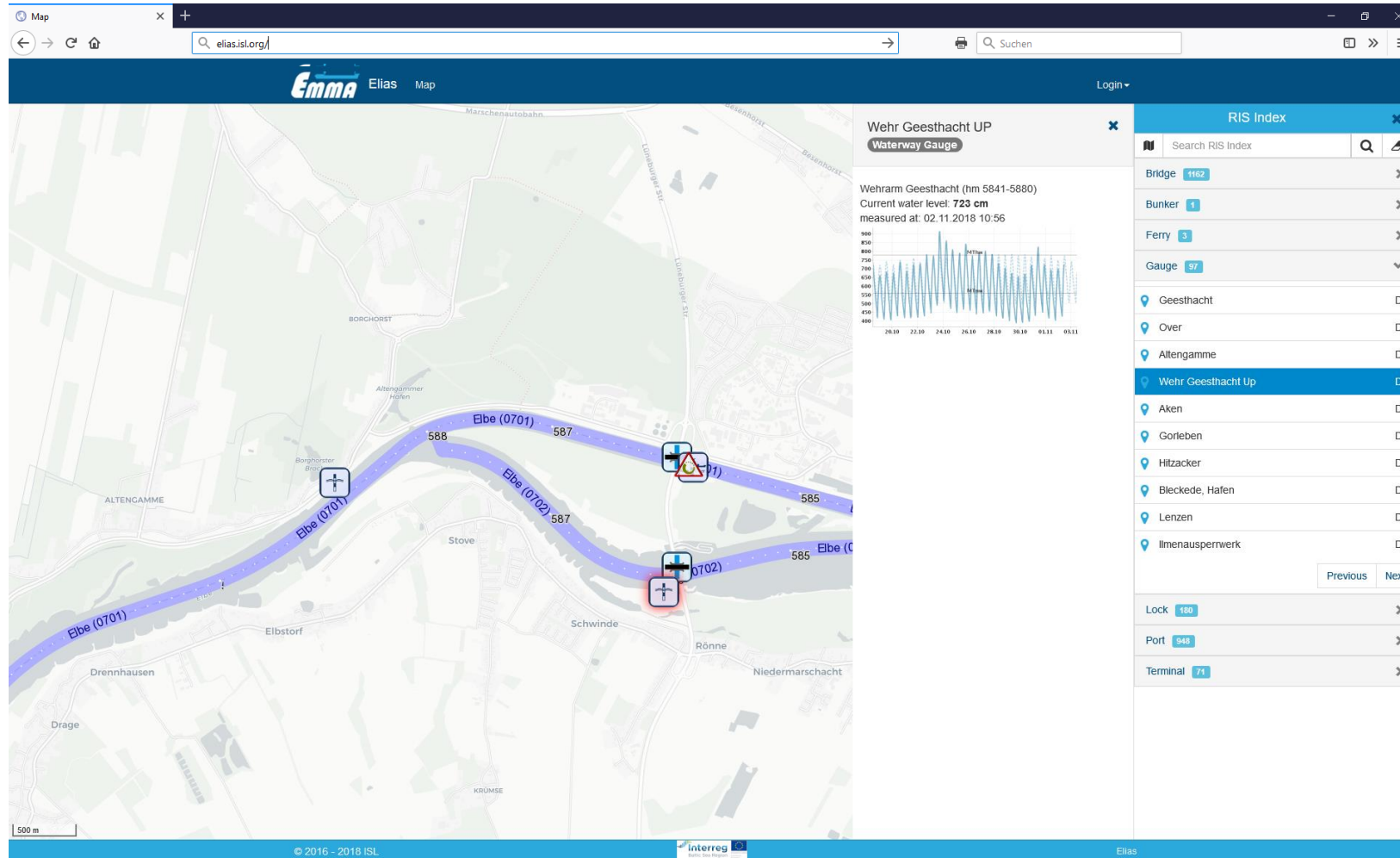


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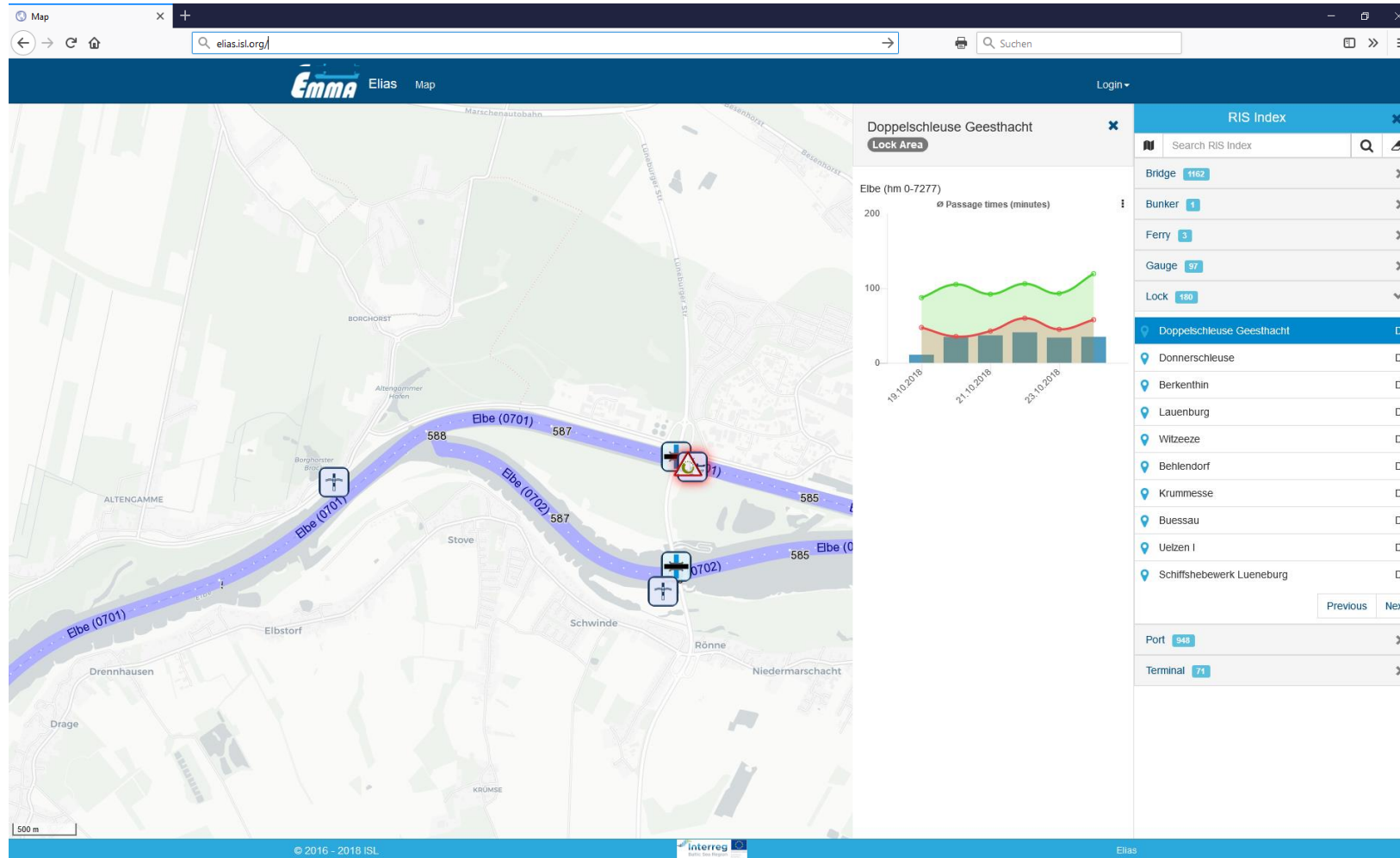
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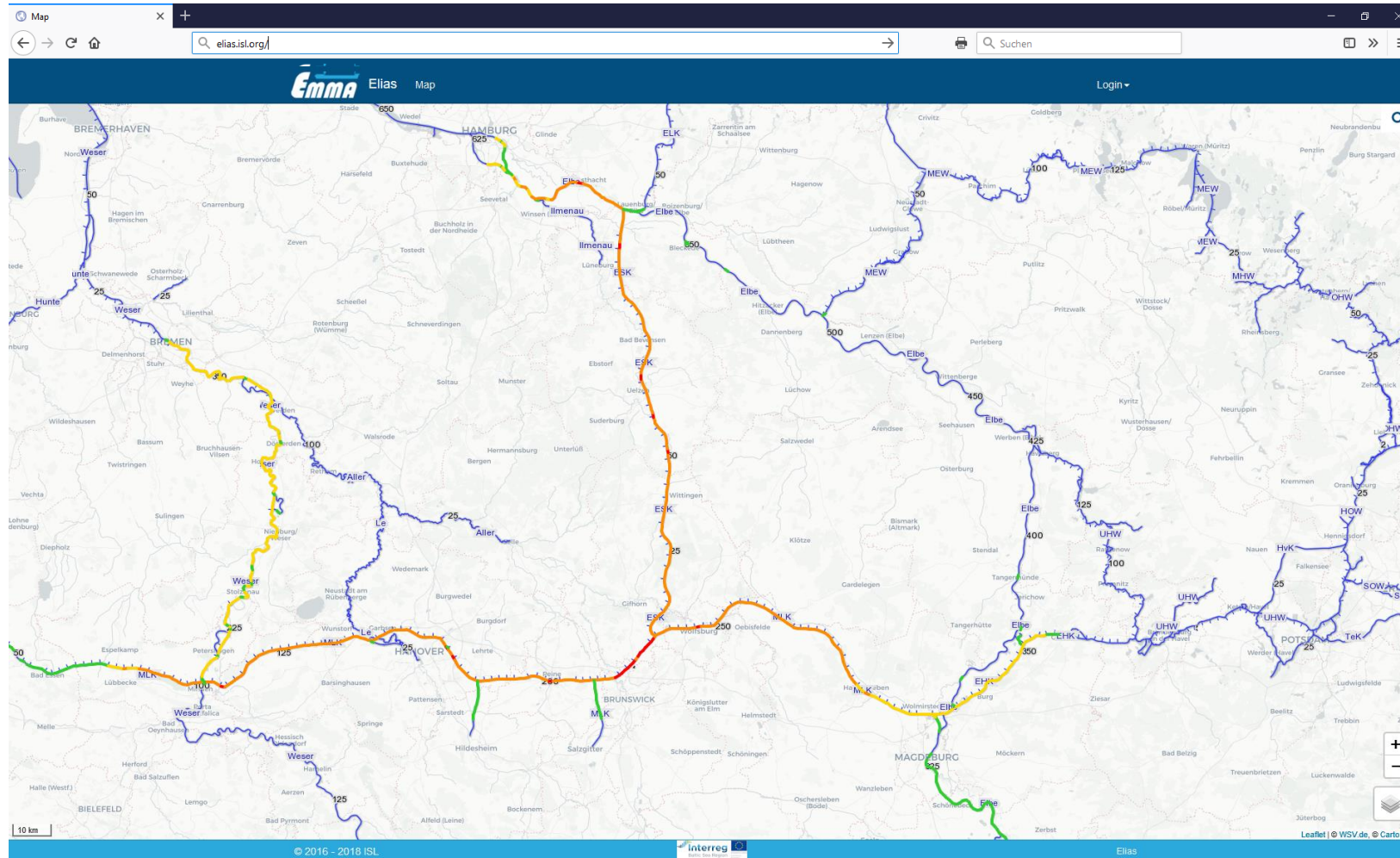
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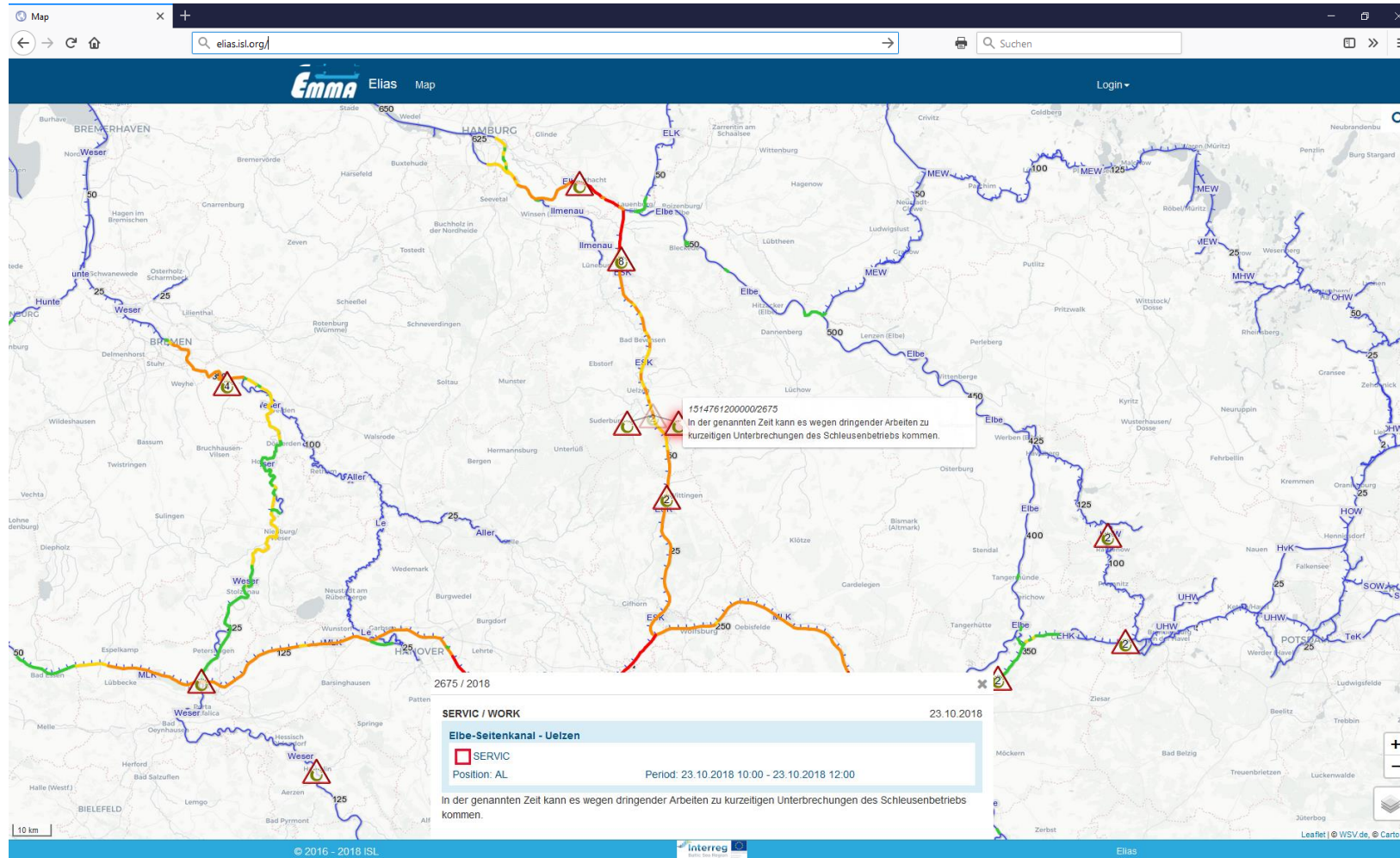


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## *From Vision to Reality*

- **EMMA demonstrates the added value of integrating the individual RIS services**
  - ELIAS is the **Single Window** towards traffic information on the Inland Waterways
- **Other regions in Europe and the BSR could benefit from this approach**
  - ELIAS builds on European RIS standards
  - Technical basis is already available in many regions
- **While RIS data is standardized the accessibility is not (not always)**
  - Common accessibility model should be developed by RIS community
- **Activities towards Corridor Management will hopefully close this gap**
- ❖ **The full potential of the inland waterways can be harnessed in the future**

Thank you for your attention!

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