Berth Monitoring and Reservation Systems in Europe
A short overview

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Caveats

- Origin: Desktop research for internal purposes

- Only public berths covered

- Focus on

  - technical implementation of berth space monitoring

  - legal regulation for berth space reservation

- Operational status differs

- So far no information from RPIS system

Overview of existing Berth Management systems

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4/5 operative systems:

- DE/LUX – Moselle: CoRISMa Berth pilot system http://de.d4d-portal.info/
- BE: VisuRIS
  http://www.visuris.be
- NL: BLIS
  http://www.blauwegolfverbindend.nl
- CH: RPIS
  http://www.rpis.eu

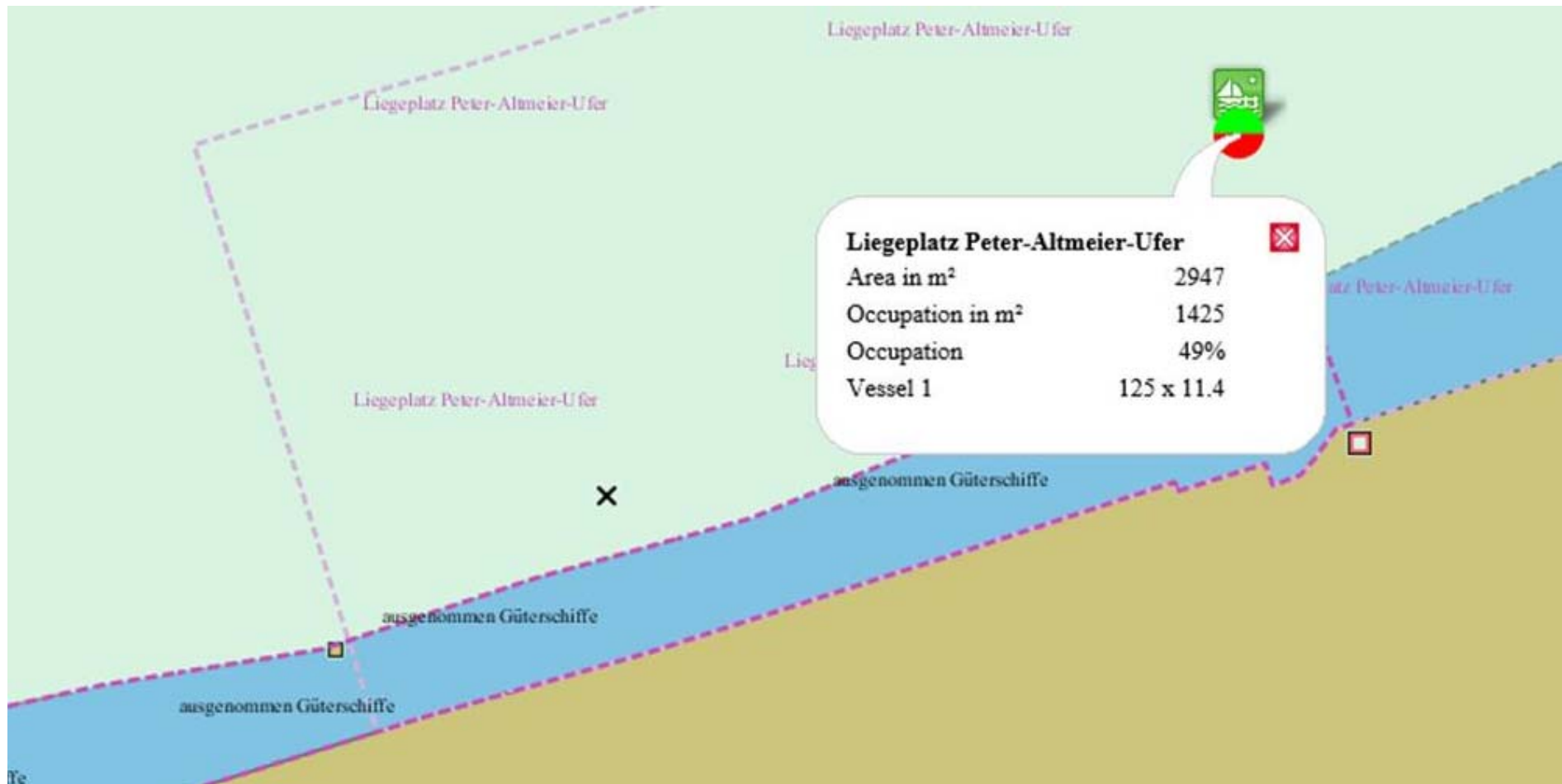# Aspects for berth monitoring

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- Operational status

- Data source

- Calculation of free berth space

- Display of free berth space

- Handling of unpropelled barges

- Access for users

Overview of existing Berth monitoring systems

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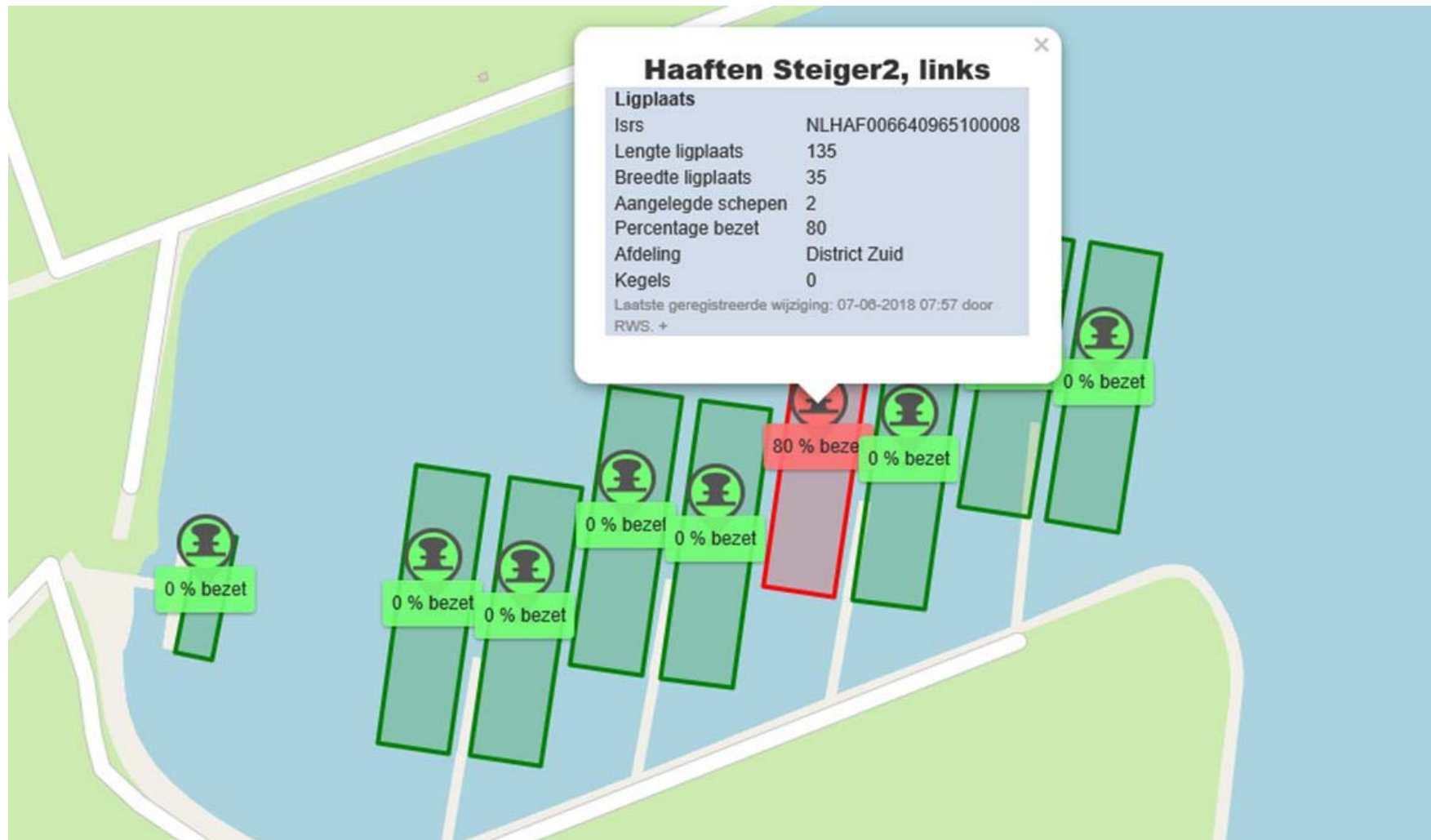|	Moselle	BE	NL
Data Source	AIS only	currently: AIS future: also from reservation system	AIS only
Calculation of free berth space	Berth area (IECDIS) vs. AIS Dimensions	Currently: none Future: berth area (IECDIS) vs. AIS Dimensions	Berth area (IECDIS) vs. AIS Dimensions
Display of free berth space	Per cent of the available space pie chart, berth area, number and AIS dimensions of vessels inside berth area	Currently: free, partially used, fully used future: per cent	Per cent of the available space, berth area, number of vessels inside berth area
Handling of barges without AIS	Reliance on correct and well maintained AIS dimensions Manual checks in intervals	Only in the future with reservation system	Not possible

Overview of existing Berth monitoring systems

Example Moselle:

Overview of existing Berth monitoring systems

Example Netherlands:

Berth Reservation - Challenges

- How long in advance to accept reservations?
- What percentage shall be reserved for spontaneous demand?
- How to inform about reservations?
- How to deal with vessels that do not keep their schedule (no show-up, arrive too late, reserve much longer than they need)?
- How to deal with vessels that use a berth without booking or stay too long?
- Who guarantees for reservation (liability) and how?

Overview of existing Berth reservation systems

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	Mosel (LUX) (6 berths only)	BE (planed)
Process for reservations	(Passenger) vessels reserve through email – manual transfer into online schedule	Division of berth area into 10m sections only specific berths can be reserved
How long in adanve can be reserved	1 year – berth usage fee has to be paid at the time of reservation	To be defined
Display of bookings	Online and through dynamic displays on site	online, for certain berth areas also through sign on-site (updated manually on-site)
Consequences of violation of bookings (staying too long or not keeping reservation)	No-show-up or shorter stay: no refund of fees longer stay: no consequences as long as no follow-up booking is effected	If through AIS an extension of the stay is detected, the reservation will be extended. In case of earlier exit the reservation will be ended earlier Alarm if a wrong vessel moors at a reserved berth
Liability for booking	Penalty if vessel uses berth without booking.	no
Legal basis	Règlement grand-ducal du 29 avril 2002 concernant le transport de personnes et l'exploitation des infrastructures d'accostage sur la Moselle	no

Overview of existing Berth reservation systems

Examples Moselle:

Anlegestelle (oder Abschnitt) ist verfügbar
(bis 25.10.2013, 12.00 Uhr)
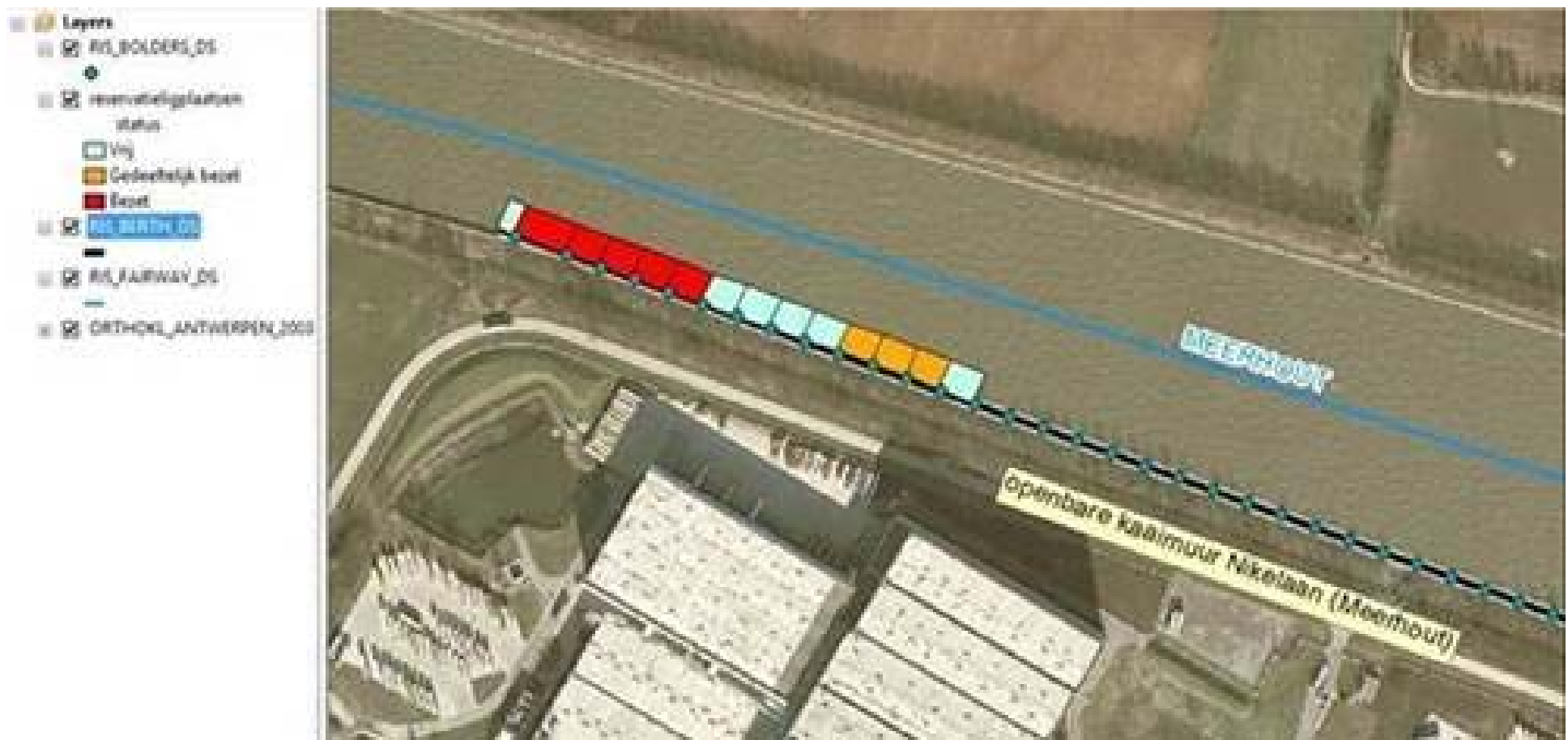Erlaubnis zum Stillliegen
(Tafelzeichen E5 der MSchPVO)

Anlegestelle (oder Abschnitt) ist reserviert
Für das FGS Princesse Marie-Astrid
Stillliegeverbot
(Tafelzeichen A5 der MSchPVO)

Overview of existing Berth reservation systems

Example Belgium (concept): berth reservation

Conclusions 1/2

Berth monitoring:

- Feasible from technical point of view
- AIS is key source of information
- Useful for berths which are used on regular basis
- Online display of:
    - Level of usage: free, partially used, full
    - Length and beam of berth area
    - Length and beam of vessels/convoys currently at the berth (vessel outlines in case of heading)
    - Vessel types
    - Dangerous cargo information (blue cones)
- Unpropelled barges could be problematic (video surveillance or electronic reporting could complement AIS)

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Online reservation and booking:

- Currently only in LUX
    - 6 berths
    - Only for passenger vessels with short stays (< 3 hrs)
    - Reservation 1 year in advance possible
    - Connected with fees

- Difficult to enforce without connected fees

- Useful only with liability for the services

- Sanctions for violation are necessary (level of service)

- Needs changes in the regulations

- Needs mobile internet on board (all potential vessels) or physical displays on shore

Thank you for your attention!

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