

eIWT

Electronic Tools for the IWT sector



Fivos Andritsos

Joint Research Centre (JRC)

The European Commission's in-house
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The role of the **DG-JRC** is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies

DG JRC Role: facts & figures

6 locations in 5 EU Member States

3500 permanent and temporary staff

83% of core research staff with PhDs

42 large-scale research facilities, more than 110 online databases

More than **100** economic, bio-physical and nuclear models



Main competence areas



Energy



**Agriculture &
Food security**



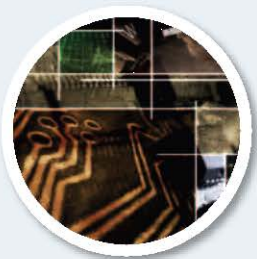
**Clean
transport**



**Environment &
Climate change**



**Health & Consumer
protection**



**Information &
Communication
technology**



**Safety & security,
including nuclear**

JRC's role in EC IWT regulatory process

Scientific / technical support to DG MOVE.D.3

- Architecture, technical requirements, characteristics and conditions of use of the database provided for in the Directive 2017/2397/EU on the recognition of professional qualifications
- Options for an electronic system in support of IWT aiming at the implementation, as a minimum of Inland Workers Cards (eIWC) and Inland Vessel Units (eIVU) covering the functions of the SRB and the LKB but also the recording of the resting and working time as foreseen under Directive Council Directive 2014/112/EU and the verification of manning requirements.

Background

- **DSM strategy & eGovernment action plan**
 - Digital-by-default principle
 - Once-only principle
 - Single digital gateway
- **Digital Inland Navigation Area (DINA) concept ***
 - Interconnect information on infrastructure, people, operations, fleet and cargo and to connect with other transport modes
 - Initiatives that would improve the IWT market through digitalization and integration of IWT in the multimodal supply network

* Initial report from external consultant concluded - staff working document on May

Requirements

- **Directive on the recognition of professional qualifications in inland navigation**
 - Central EU qualifications DB and MS national registries
 - Data on the Union Certificate of each crew member
 - Incremental N° of active crew SRB and vessel LBK
 - Limited functionality for EC and MS authorities
- **Envisaged electronic tools (eIWT)**
 - Assessment foreseen in the Directive
 - Decision to proceed with an initiative
 - Start with experts' group & impact assessment study
 - Would require ECDB extended operational functionality

High level objectives

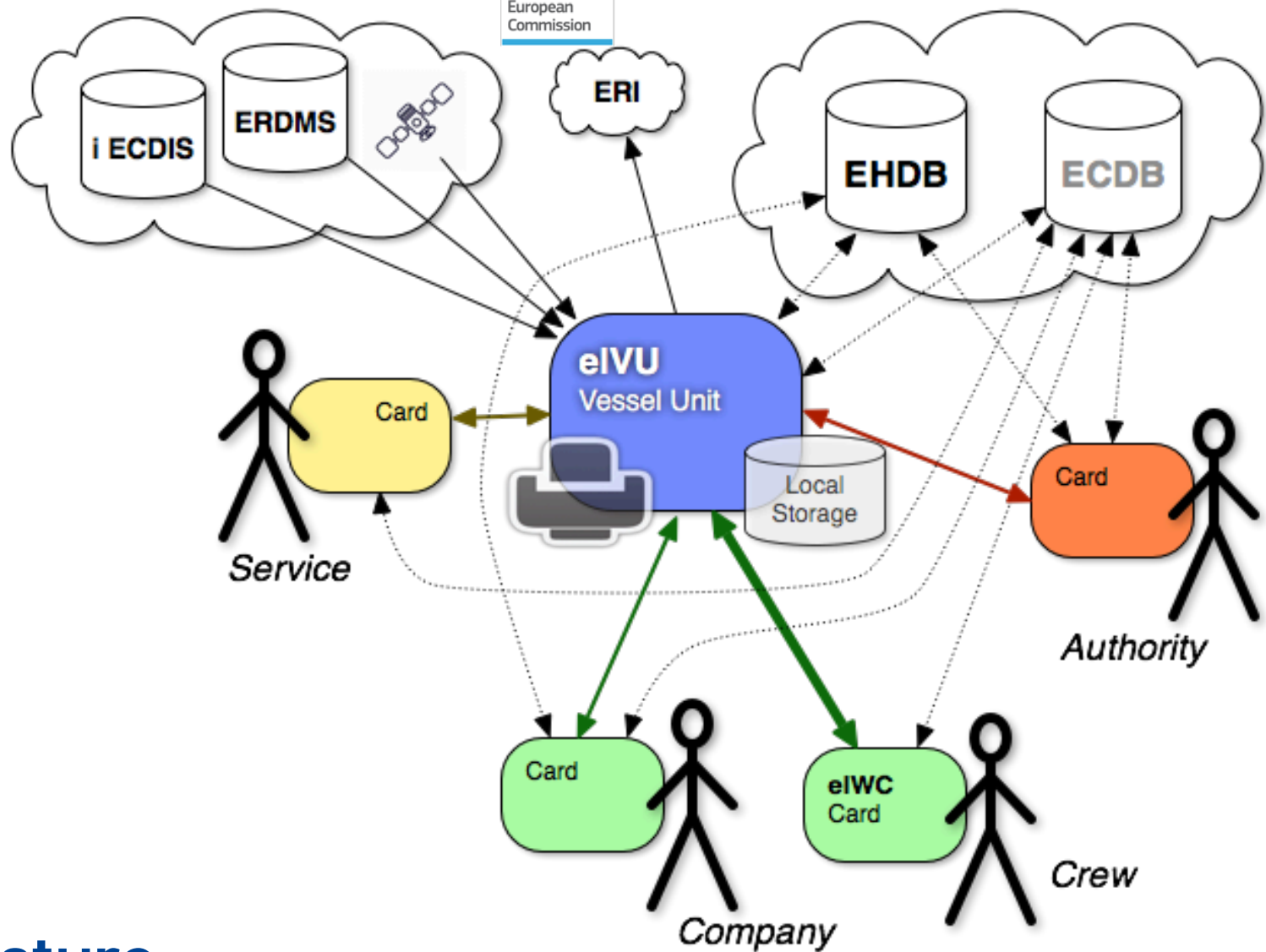
1. The efficient administration¹ of Union Certificates of Qualifications as per the EC Directive on Professional Qualifications.
2. The effective and efficient digitalization of the IWT sector in order to improve its efficiency, safety & security while ensuring fair competition and good working standards, in compliance to the Digital Single Market and e-Governance principles.

¹ Issuing, renewing, suspending and withdrawing Certificates of Qualification by the Member States

eIWT architecture

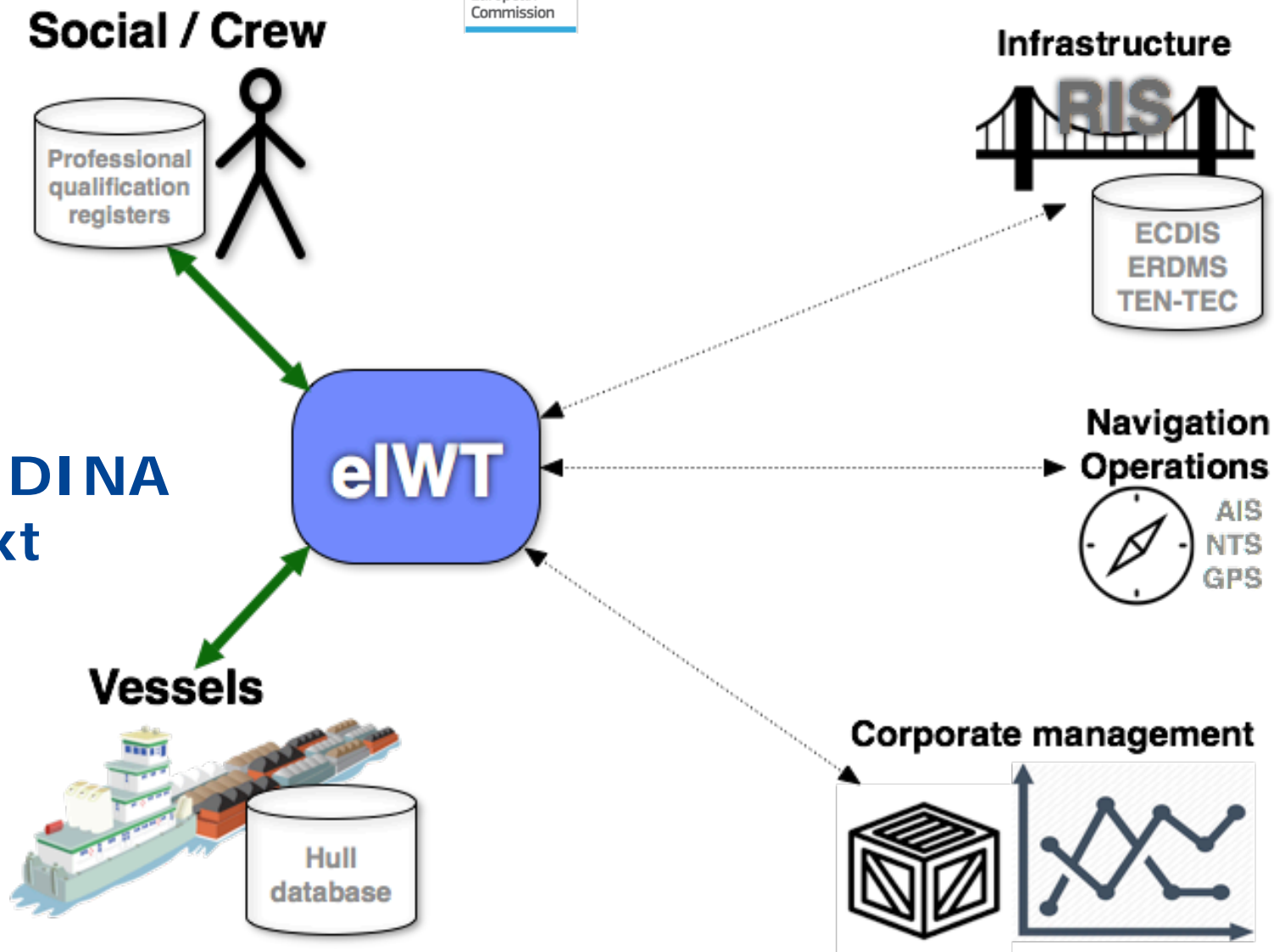
Two basic building blocks:

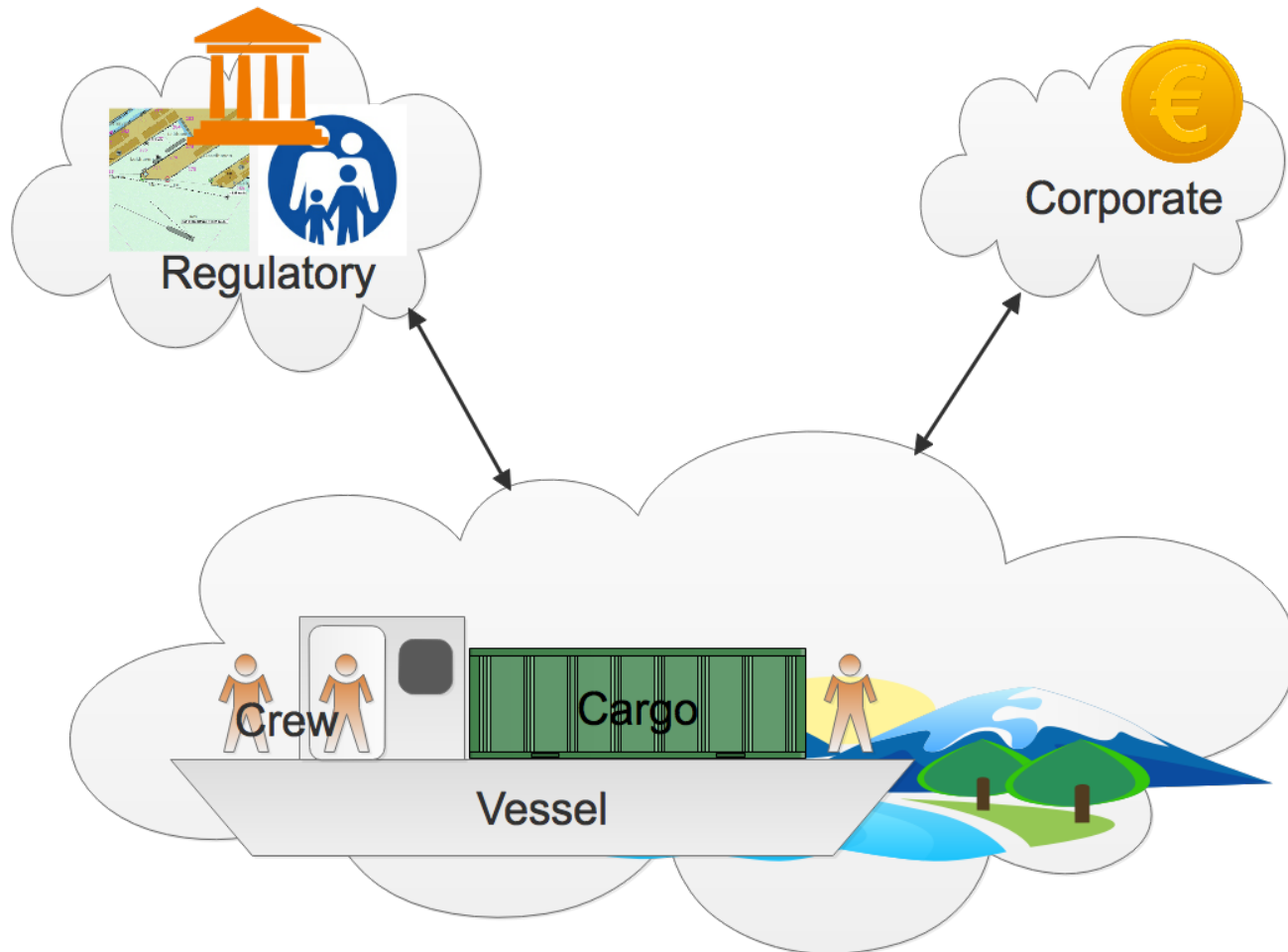
1. An **electronic Inland Vessel Unit** (eIVU), uniquely associated to a particular IWT vessel.
2. An **electronic Inland Worker's Card** (eIWC), uniquely associated to each IWT worker. It would have two main functions:
 - a. Professional ID card: it should be based on some biometric or other features (i.e. picture, PIN, etc.) permitting the identification of the bearer, together with his/her professional qualifications
 - b. Electronic service record book (eSRB): it should be based on a non-volatile on-chip memory, where the acquired information would be stored for later use.



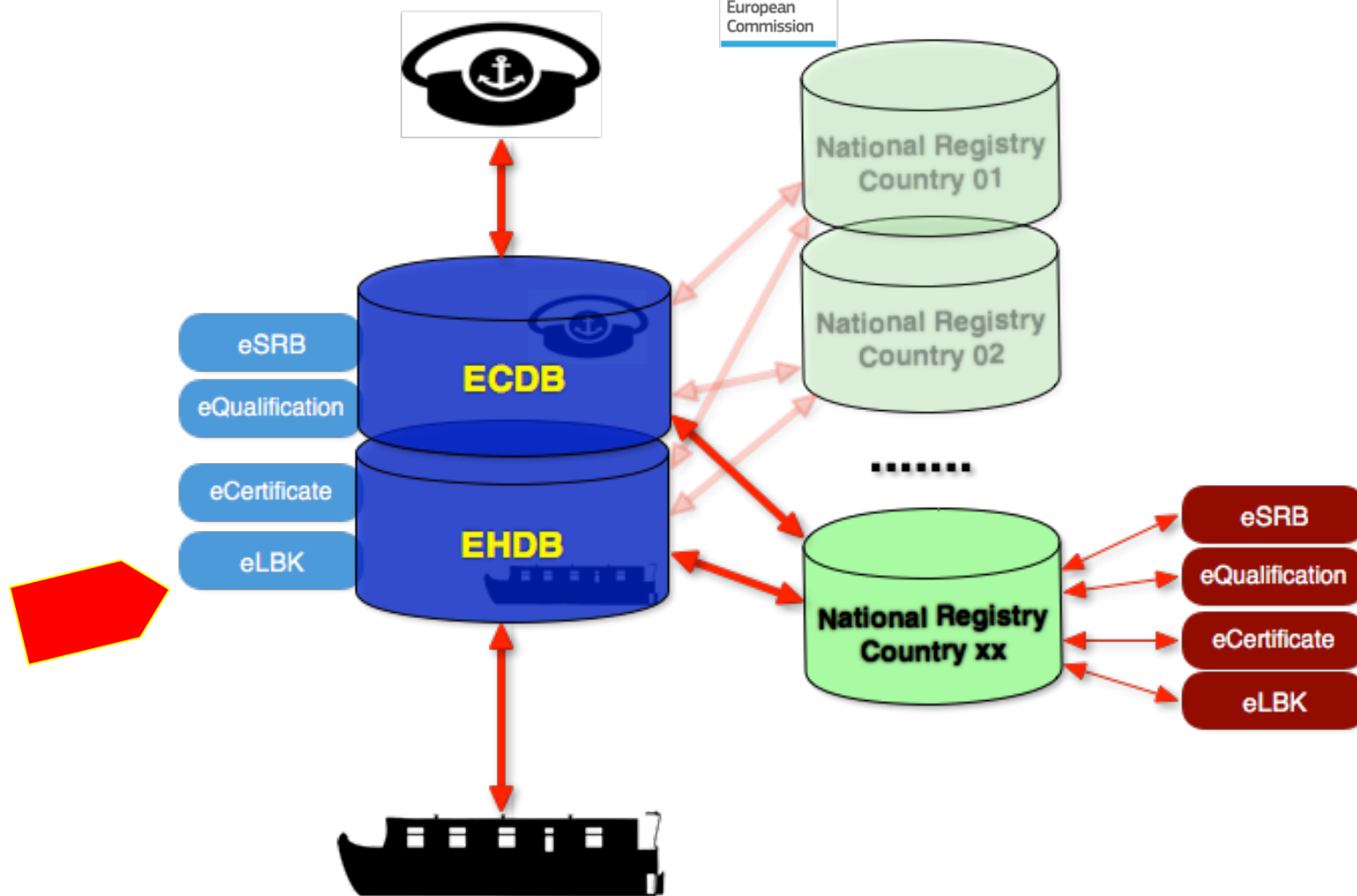
eIWT architecture

eIWT in the DINA context

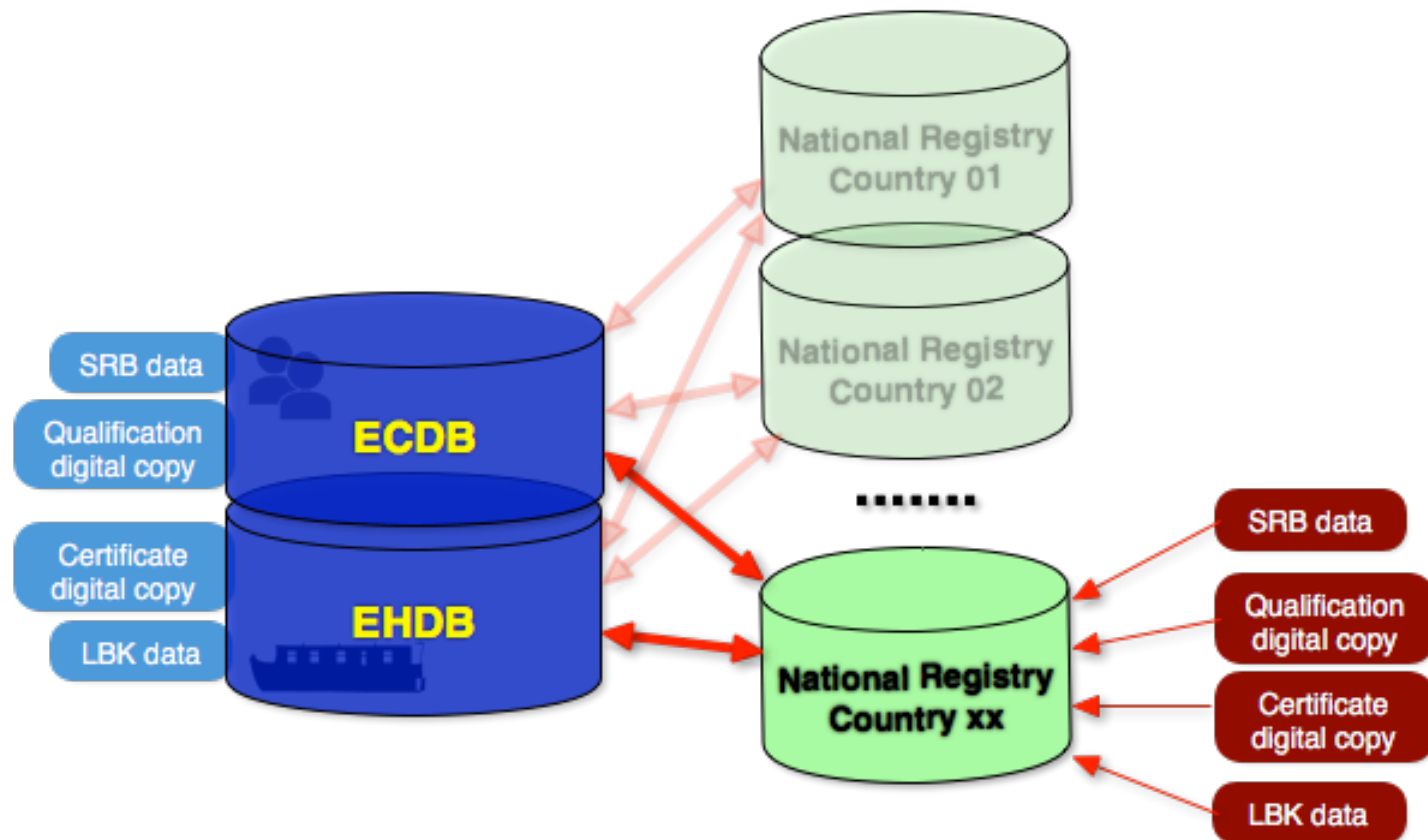




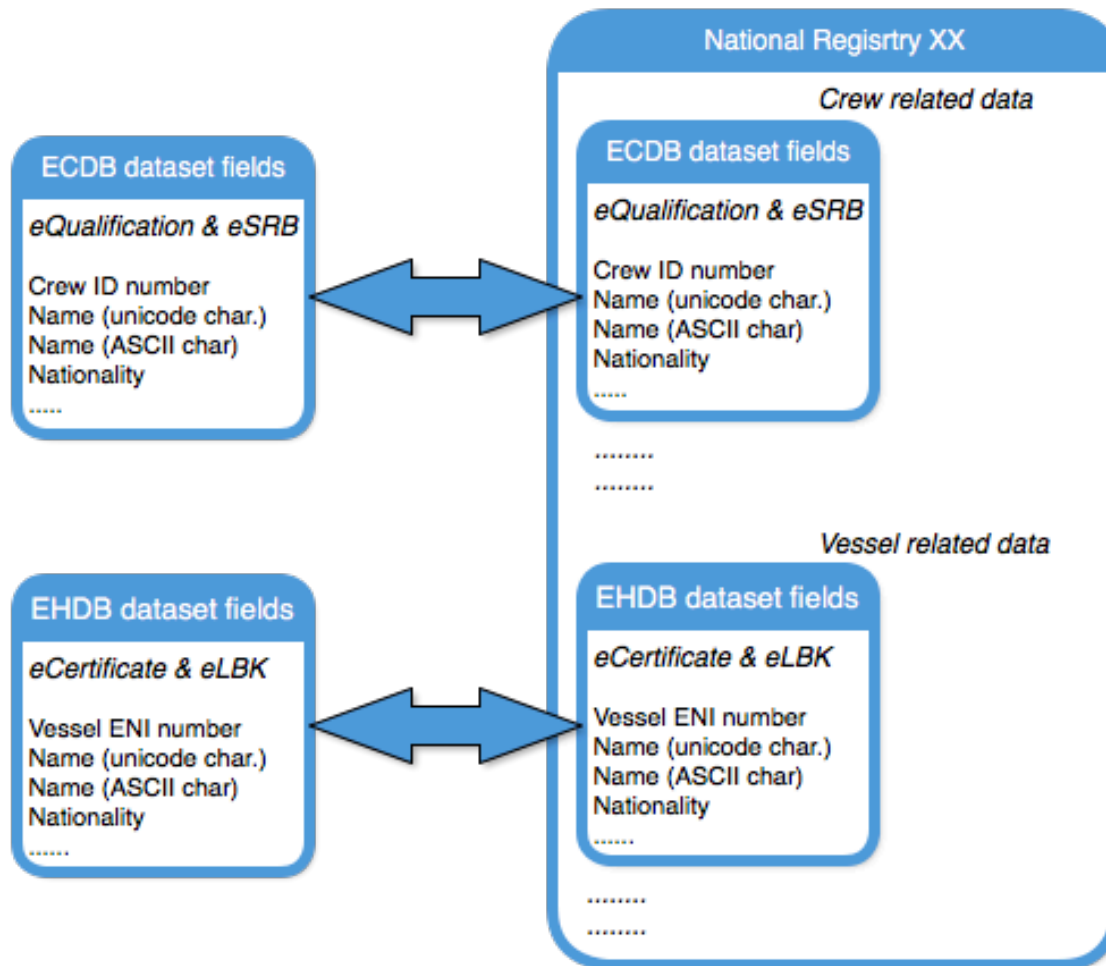
Virtual Vessel concept



ECDB / EHDB assuming full eIWT

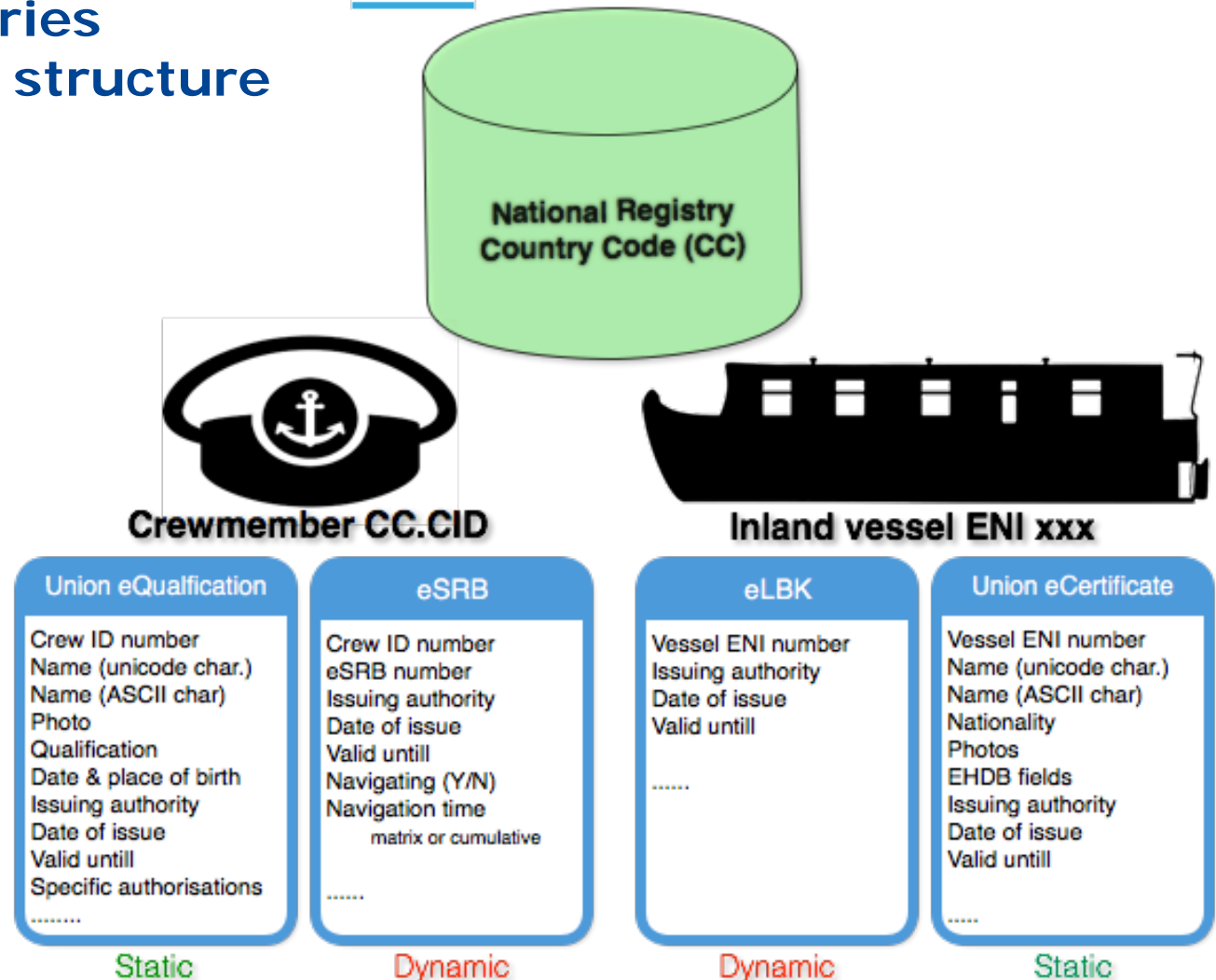


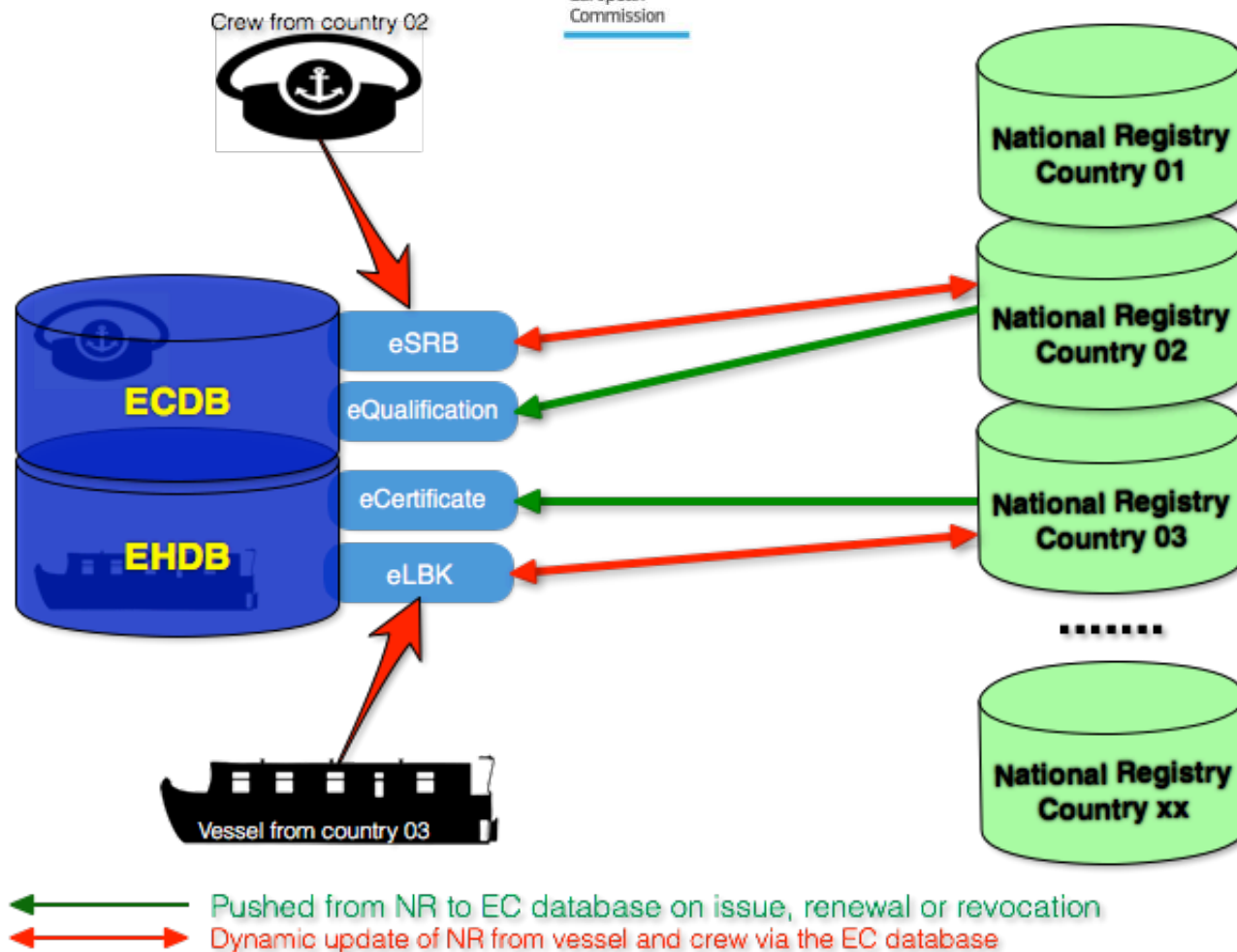
Initial ECDB / EHDB, no eIWT



MS registries' data fields vs ECDB and EHDB

National registries indicative data structure





Interaction with MS authorities through ECDB

Use-cases

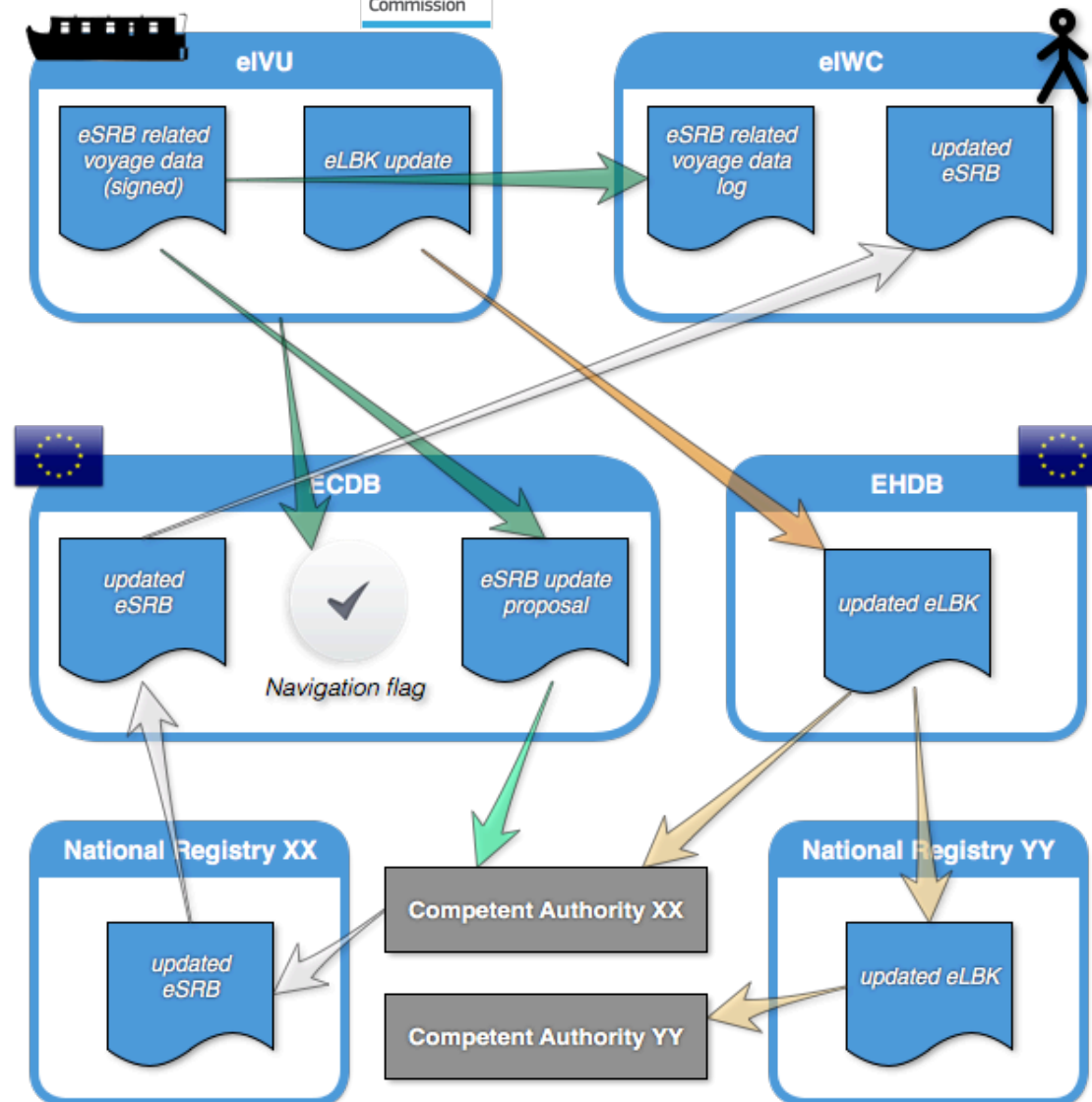
1. eSRB update
2. eLBK update
3. Registration of licence / certificate issuance or upgrade
4. Registration of licence / certificate renewal or replacement
5. Registration of licence / certificate suspension
6. Registration of licence / certificate withdrawal
7. Registration of pre-existing valid licences / certificates
8. Access / queries by enforcing authorities
9. Access / queries by international bodies (?)
10. Access / queries by crewmembers

For each use-case

1. Identify the **actors**
2. Identify the **procedures**
3. Derive the necessary **information content**
4. Define the **information placeholders**
5. Define the **information flows**
6. Derive the **functional requirements** for 4 and 5, including availability, security, privacy etc.
7. Propose some **technical options**
8. Elaborate on possible **standards** to be adopted

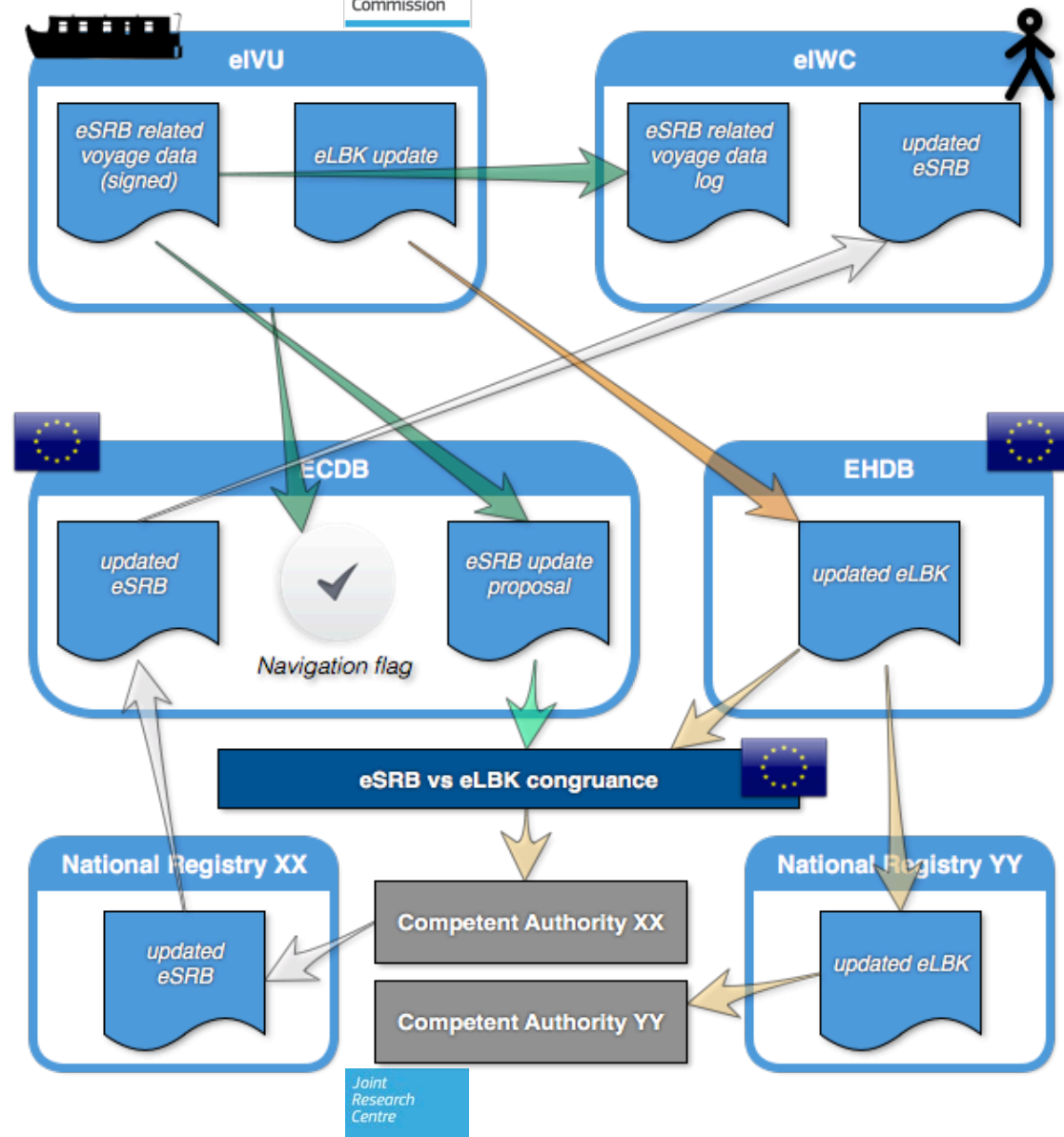
eIWT phase eSRB & eLBK update

Information flow

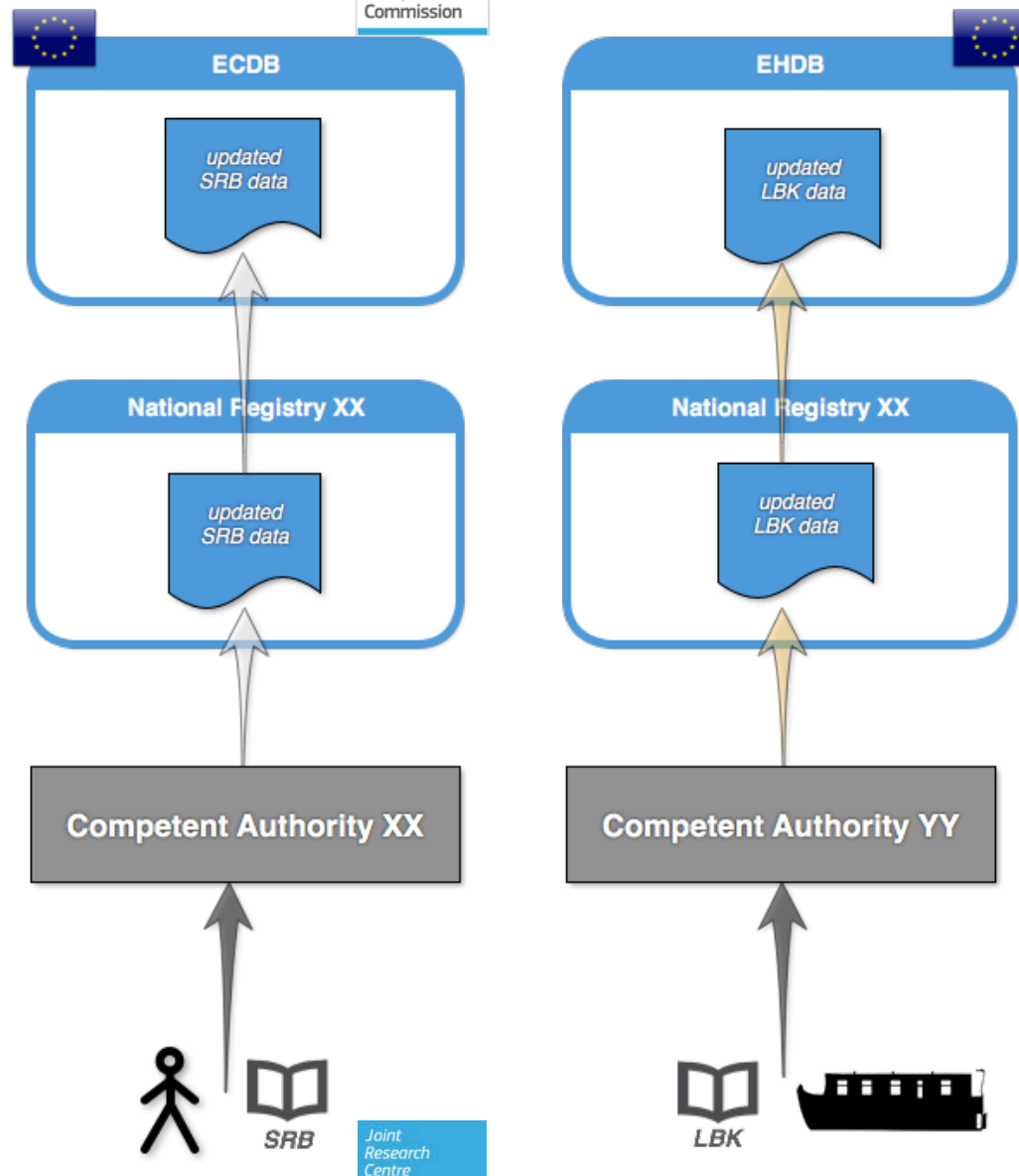


eIWT phase eSRB & eLBK update

Alternative information flow



Initial phase SRB & LBK update of static data only



Major legal change

Now:

- Original vessel paper certificates are those kept on board.
- Original crew paper SRBs and certificates are those kept by each crew

eIWT scenario:

- Original vessel certificates are those kept at the competent authorities, preferably in electronic form.
- Original crew SRBs and certificates are those kept by the issuing authorities, preferably in electronic form
- Vessel unit or crew card electronic certificates are considered as certified copies obtained and synchronised through the EHDB and the ECDB

Important issues

- Extend & upgrade the EHDB in parallel to ECDB
- Simplify the current regulations; eliminate obsolete parts (i.e. navigation modes, rest time recordings in LBK, etc.)
- Tackle privacy & data protection issues
- Future-proof design in view of DINA (i.e. links to RIS and corporate tools without re-designing eIWT)



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