THE FUTURE OF RIS

View points from the wheelhouse

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Three Key Takeaways

1. Realize benefits of RIS for IWT by fully implementing (a revised) RIS Directive in <u>all</u> EU member states

2. Create incentives for member states to invest in RIS and swiftly implement it on their <u>entire</u> waterway network (support & enforce)

3. Ensure and prioritize the civil and economic <u>privacy</u> of stakeholders (data protection)

Content

- **Short Recap of RIS and IWT related IT**
- **Recent Technological Developments**
- **Benefits and Guiding Principles RIS**
- **IWT from an Operations and SCM perspective**
- **Suggestions for Future R&D, Pilots and IWT3.0**
- **DINA (and DTLF)**
- **Recap of Key Takeaways**

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Recap of RIS and IWT related ICT

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- Arrival mobile phone (1980's), rapid uptake due to ambulant nature
- Intro SMS and 1996 e-mail available to general public
- The end of the 90's saw the introduction of mobile internet
- Turn of the century: e-mail the most successful application in IWT
- Quality mobile networks does not always meet requirements IWT
- Netherland: network for WiFi in ports and locks
- Computers quickly became more fashionable on almost all vessels!
- Soon followed by applications in the wheelhouse like Inland ECDIS
- Integration of software in the wheelhouse (BICS and stowage appl.)
- A central interface i.e. 'office for IWT' is not yet available
- AIS/ECDIS carriage requirements by CCNR, carefree introduction
- However, unwelcome transparency due to illegal use of AIS
- Untapped potential remains?

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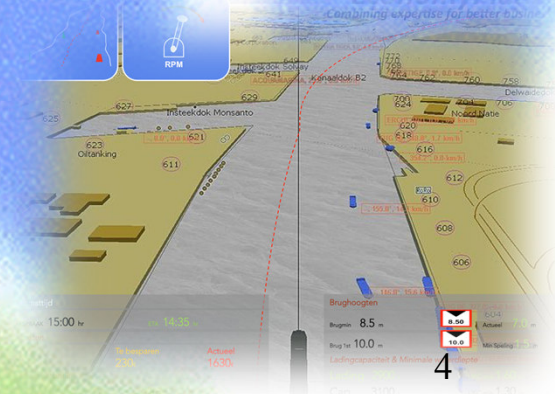
SIGN OF THE TIMES

- Technological Change (exponential)

- Internet & Mobile Communication

- Disruption & Transformation

- Certainty of Uncertainty

- But also Unlimited Opportunity

- How to apply to Inland Shipping

- On the Threshold of a Revolution!

3500 x Performance
90000 x Efficiency
$ 60000 x Lower cost

Intel® 4004 1971 — Intel® Core i5 processor 2015

Moore's Law transistor change

General Trends ICT and IWT

- Arrival of many new devices (in addition to the desk top)
- Smart phone and tablet allow for many new applications
- Availability of such devices quickly rises
- Governments stimulate on going digitalisation
- Connectivity and 'digitalisation of everything'
- Internet of things turns into 'internet of ships'?
- How will the barge owner i.e. shipping company benefit?

Benefits RIS

- **Safety and calamity abatement (transparency)**
- **Reduction of manual input and quality of information (less errors)**
- **Efficiency traffic management and prevention repeat notifications**
- **Reduction administrative burdens (statistics and fairway charges)**
- **Opens doors to RIS enabled corridor management**
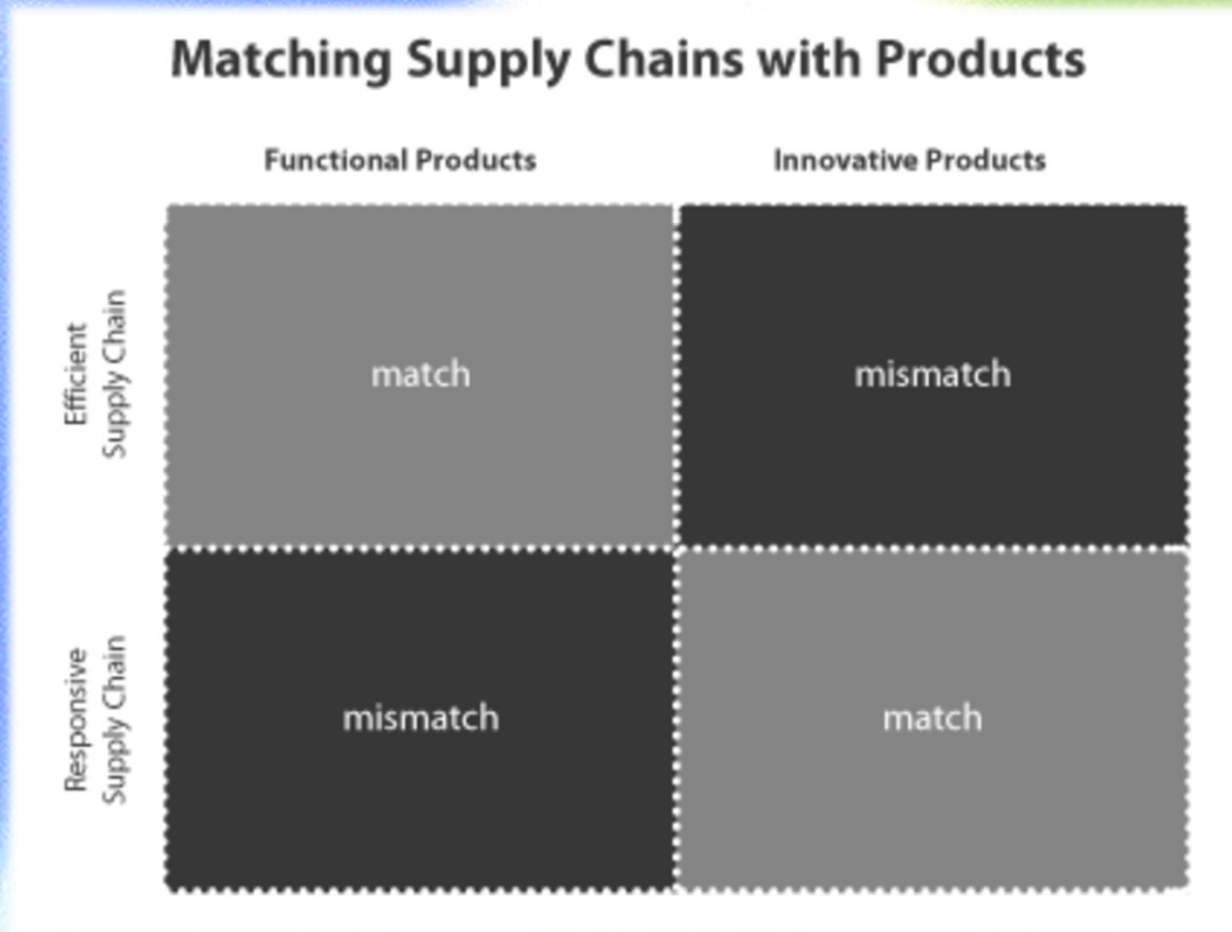- **Support, promote and develop IWT as part of multi modal transport**

Founders' Guiding Principles

- Harmonized RIS on all fairways throughout Europe (one regime)
- One message only, during the entire journey
- Throughout Europe i.e. border crossing
- Information digitally provided to the skipper
- Reciprocity i.e. 'give and take' (fairway information – RIS)
- Gradual and voluntary introduction strategy
- Respect for the privacy of the skipper i.e. shipping company

IWT from an OSCM Perspective

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Matching Supply Chains with Products

	Functional Products	Innovative Products
Efficient Supply Chain	match	mismatch
Responsive Supply Chain	mismatch	match

IWT => low margins and therefore strong focus on efficiency!

Customer-introduced variability

Due to:

1. Arrival
2. Request
3. Capability
4. Effort
5. Subjective preference

Creates disturbance and compliacates effective and efficient planning along T&L chains and the fairway

How to accomodate and information needs?

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Common Framework ICT T&L

- **Stakeholders & process enablers & capabilities**
- **Inclusion of intermodal stakeholders in development**
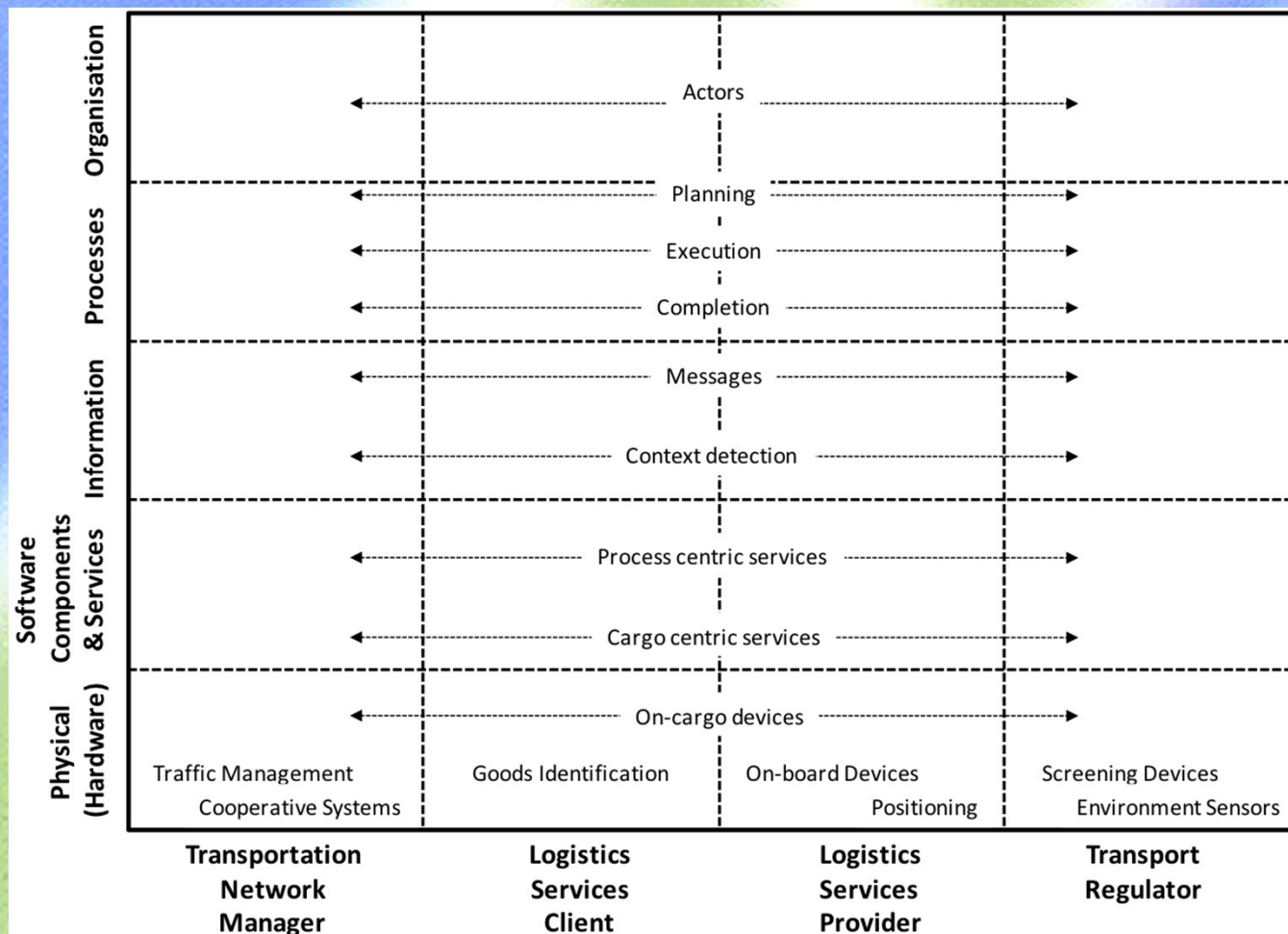
Avenues for Future R&D and Pilots

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- Planning & controle with AIS & VCM
- Analyse economic dimensions of lock planning
- Cooperative depth measurement (CoVadem)
- Transparancy on quay utilization
- Electronic solutions for paying fairway dues
- Common policy for acquiring statistics
- Concerted approach for performance measurement and metrics

Digital Inland Waterway Area

- Applying the Digital Single Market strategy
  in inland waterway transport

- **Goal: to improve the competitive position of inland waterway transport**

- By interconnecting information on infrastructure, people, operations and cargo

- By interconnecting different parts of the logistics chain / transport network: inland waterway transport (IWT), inland ports, maritime ports, road and rail

- By providing tools for operations and management, enabled by Intelligent Transport Systems (ITS)

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