

Älymeriväylän palvelut

Tommi Arola

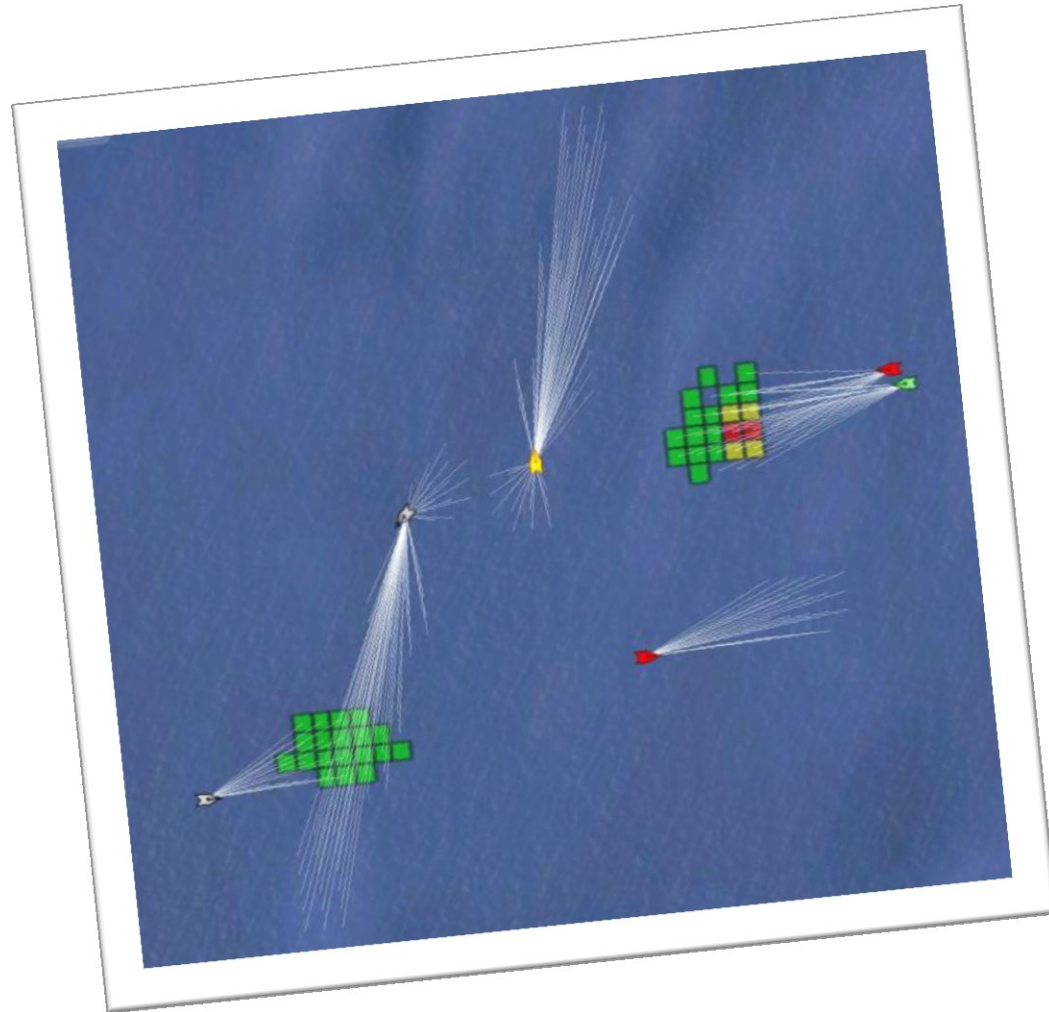
Yksikönpäällikkö, kokeilut ja automaatio



@TommiArola | email: tommi.arola@traficom.fi



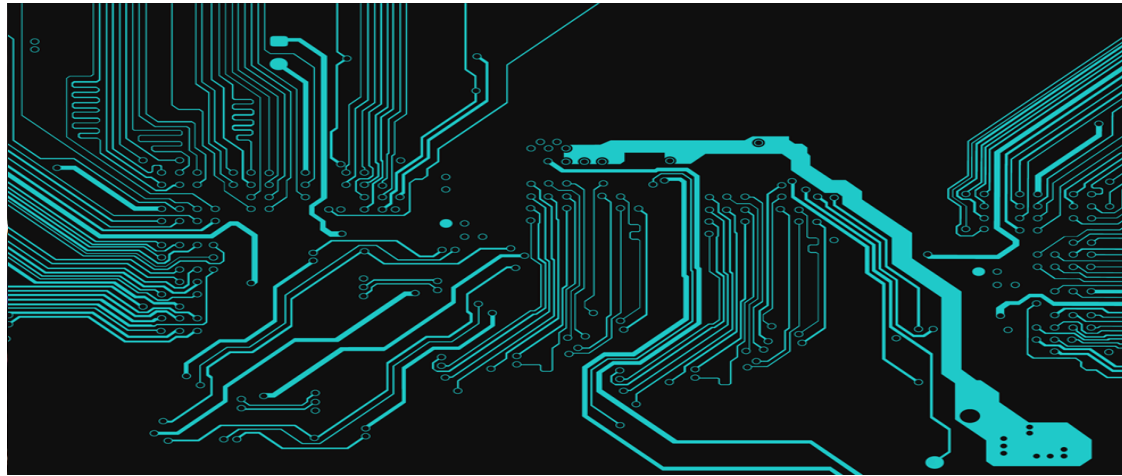
Data ja keinoäly ei ollut kiinnostavaa 10 vuotta sitten



Tänään olemme datatalouden ytimessä merenkulussa

Stimulating
relevant research
and innovation

Establish
ecosystem
leading to more
business
opportunities



Good quality, reliable and
interoperable datasets

Improved conditions that
facilitate value generation
from datasets

A range of application areas
where improved big data
handling can make a
difference

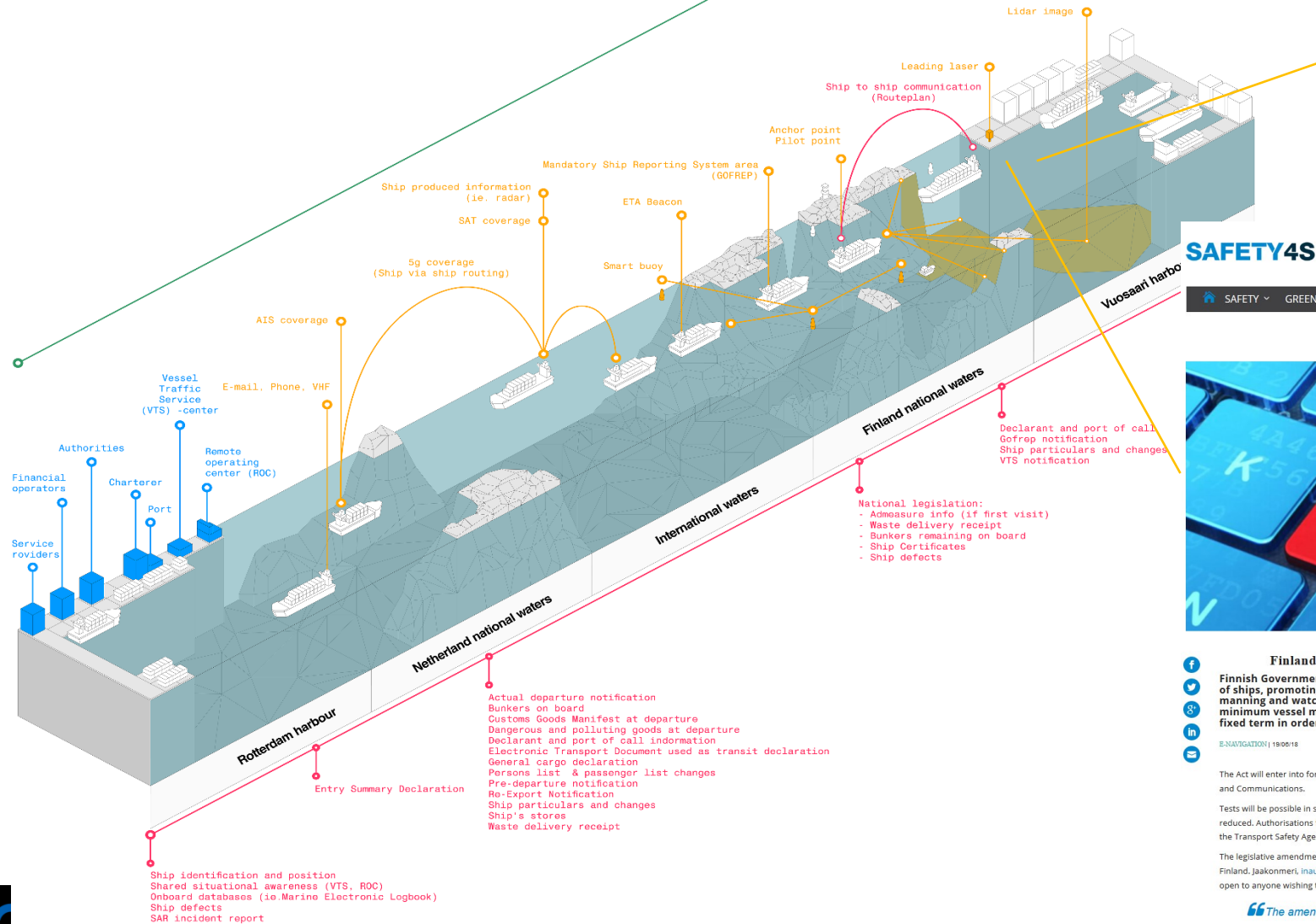
2015: €285 billion (1,94% EU GDP)

2020: €739 billion (4 % EU GDP)

*) *European Data Market study 2017: <http://www.datalandscape.eu/>*

McKinsey (2014): cross-border data flows generated
\$2.8 trillion in economic value

Merenkulun digitaalinen arkkitehtuuri?



- Border Control Systems
- Electronic freight transport information
- Electronic Certificates
- EU Import Control System (ICS)
- EU MRV (Monitoring, Reporting, Verification)
- European Maritime Single Window (eMSW)
- HAZMAT Database, Central Ship Database
- MyData service
- Port community system
- Port systems
- Safe Sea Net information exchange system
- Safety and Security Declaration Service
- Sea Traffic management / Enhanced Navigation
- Trade Control and Export System (TRACES)

Remote pilotage allowed

TIEDOTE 17.01.2019 15.33 fi sv en



Pilot boat (Photo: Jeffrey B. Banke / Shutterstock)

Remote pilotage subject to authorisation will be allowed in those public channels in Finnish waters and in the Saimaa Canal lease area that have been marked as routes requiring pilotage. The Pilotage Act will be amended to allow the pilot to perform his or her duties somewhere else than onboard the vessel. The Government proposed on 17 January 2019 that the Pilotage Act be adopted.

A pilotage company has to apply for an authorisation from the Transport and Communications Agency. A requirement for granting an authorisation is that remote pilotage will not as such or in combination with other functions cause any danger to vessel traffic safety or any harm to other vessel traffic or the environment.



Finland amends law to promote automation in maritime

Finnish Government submitted a bill on ships' crews and the safety management of ships, promoting autonomous tests in maritime transport with regard to manning and watchkeeping. Under the submission, in future, exemptions to minimum vessel manning requirements and watchkeeping may be made for a fixed term in order to promote technological innovations.

ENAVIGATION | 19/06/18

The Act will enter into force on 1 July 2018, according to data provided by the country's Ministry of Transport and Communications.

Tests will be possible in separately defined areas or routes. In automatism tests, the manning of ships can be reduced. Authorisations for tests will be granted to each test separately for a maximum period of two years by the Transport Safety Agency.

The legislative amendment promotes testing in, for example, the Jaakonmeri area on the western coast of Finland. Jaakonmeri, inaugurated in August 2017, was the first autonomous maritime test area to be globally open to anyone wishing to test autonomous maritime traffic, vessels, or technologies related to it.

"The amendment improves the opportunities of Finland's maritime industry to be a leader in vessel automation in the digitalisation of maritime transport."

5G caset merenkulussa?

When everything is labelled, tracked and recorded automatically, **gone will be the days of losing cargo, misplacing containers and losses due to manual inefficiency and labour.**

Source: The impact of 5G: How will 5G affect supply chain & logistics, <https://www.2wglobal.com/news-and-insights/articles/features/the-impact-of-5g/>

*The Hamburg Port Authority wants to use 5G **to manage traffic lights** within the port area, as well as **collecting and processing environmental measurement data in real-time**. **Virtual reality applications** will also be applied to monitor critical infrastructure such as water gates and construction areas to ensure safety in the port.*

Source: <https://superyachttechnologynews.com/2018/10/14/what-is-the-reality-of-5g-for-the-marine-industry/>

*Project Loon is a radical approach to expanding Internet connectivity. Instead of trying to extend the Internet from the ground, **Loon takes to the sky via a network of balloons**, traveling along the edge of space, **to expand Internet connectivity to rural areas**, fill coverage gaps, and improve network resilience in the event of a disaster.*

Source: <https://x.company/projects/loon/>

Rethinking transport

27–30 April 2020



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