

FONASBA Annual Meeting

October 15th 2025,
Istanbul



IPCSA

International Port
Community Systems
Association





Nico De Cauwer



• IPCSA Secretary-General

- Official IMO/MSW-expert, Member of IMO's FAL Committee & IMO's Expert Group on Data Harmonization (EGDH)
- Member of the Data Collaboration Steering Committee of IAPH
- official Expert in Transport & Logistics domain within UN/CEFACT



- Business Architect Digitalisation & Innovation, Port Community Solutions, within Port of Antwerp-Bruges.



Who is IPCSA ?



IPCSA

International Port
Community Systems
Association



IPCSA

International Port
Community Systems
Association

“A Community of Communities”



55 Members
operating in
over 50
Countries



Members
Operating in
excess of 500 Sea
Air Ports, Inland
terminals &
border crossings



Seaports,
Airports, PCS
Operators,
Single Window
Operators



Over 50bn
electronic
exchanges per
annum and
1.5m+ users



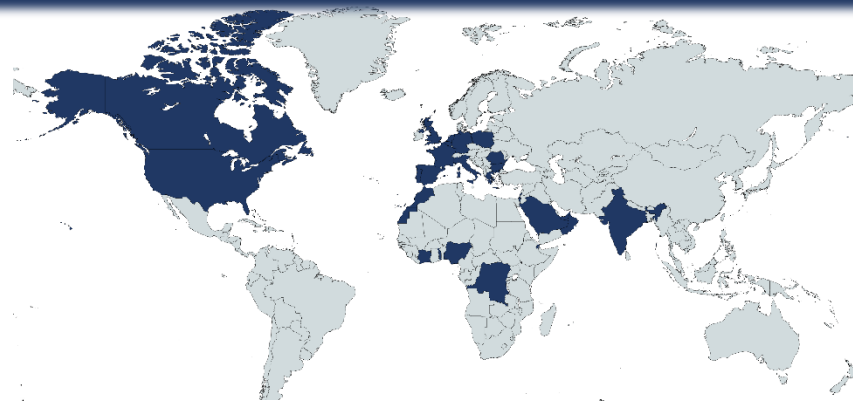
Covering
500m + TEUS
20bn + Tonnes
of cargo



IPCSA
International Port
Community Systems
Association



IPCSA MEMBERS 2025



Copyright © IPCSA



Sustainability — definition



Sustainability

[sə-,stā-nə-'bi-lə-tē]

The ability to maintain or support a process continuously over time.

 Investopedia

DEFINITION:

Sustainability is the ability to maintain or support economic, environmental, or social processes over time without depleting natural resources.

Sustainability — definition

So, sustainability is more than only talking about climate, but it talks about preserving the 3 pillars at the same time :

- **Environment**
- **Economy**
- **Society**



Economic Sustainability

“Economic sustainability refers to a **company’s ability to continue its operations over a long-term horizon.**

In order to be economically sustainable, a company must be able to ensure that it will have **adequate resources**, workers and consumers for its products **into the distant future.**”

So – how to match these adequate resources with Ports’ core business, delivering smooth & efficient port operations ?

Sustainability in Ports — a global challenge

Port ecosystems are on a **dual pressure** when it comes to sustainability :

- **Environmental** – reduce emissions, align with the SDGs and IMO/UN sustainability targets
- **Operational** – stay competitive, resilient and efficient in global trade

All this while operating in a **more complex compliancy** environment with increasing regulations, and in a world that is **ever more technologically evolving**

Resilience & Sustainability in Ports — there is a solution !

Copyright © IPCSA

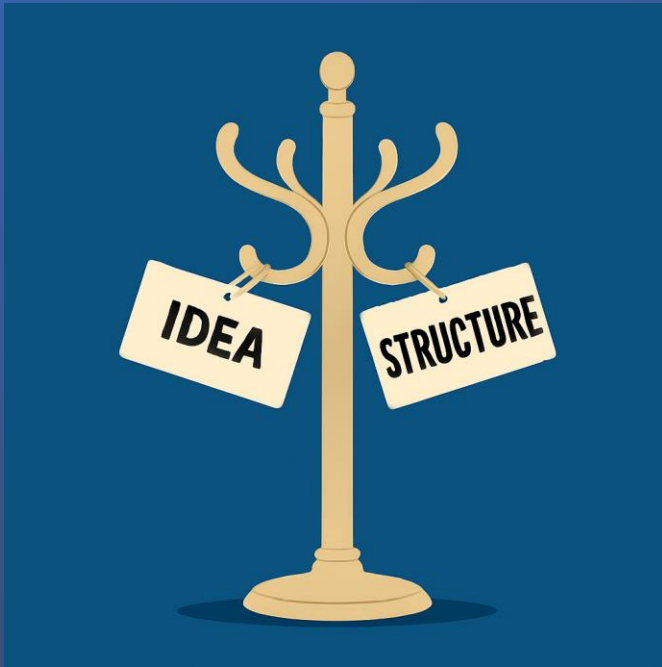
Technology



Digitalization



Some handholds...



Sustainable Digitalisation

≠

Making paper-based processes electronic

≡

(re)think & improve business
> optimizing your business processes

- Use a **holistic** approach (center = global trade)
- Leave the 'vertical' focus, instead look towards a 'horizontal' integration as an enabler of trade

>> needs **COLLABORATION** – digital & human
≡ **COMMUNITY**

Collaboration = Port Community Systems

Human & digital collaboration **implies** the use
of **Port Community Systems**
to **foster** Sustainable & Global Trade !!

Multiple stakeholders **collaborating** by means
of **digital services**, sharing real-time data, on
a joint PCS-platform
will **optimize** your **port operations**
+
Technology will help you doing that

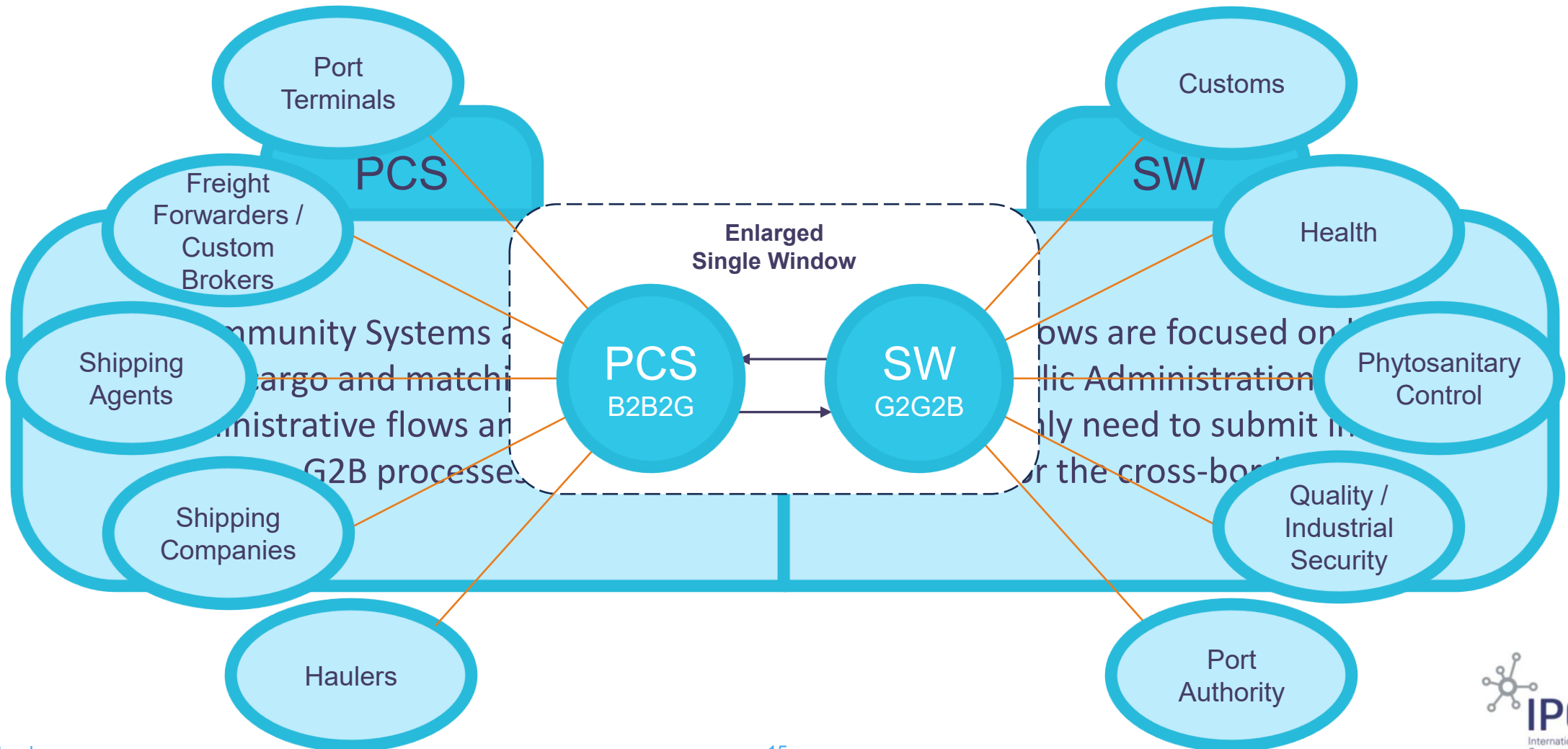
PCS implementation — Considerations

- Don't think 'technology first': a PCS is not an IT-project but a Change management project !
- Stakeholder awareness and 'Community building' is a time-consuming but necessary effort
- Technology comes at the end: proven solutions are there



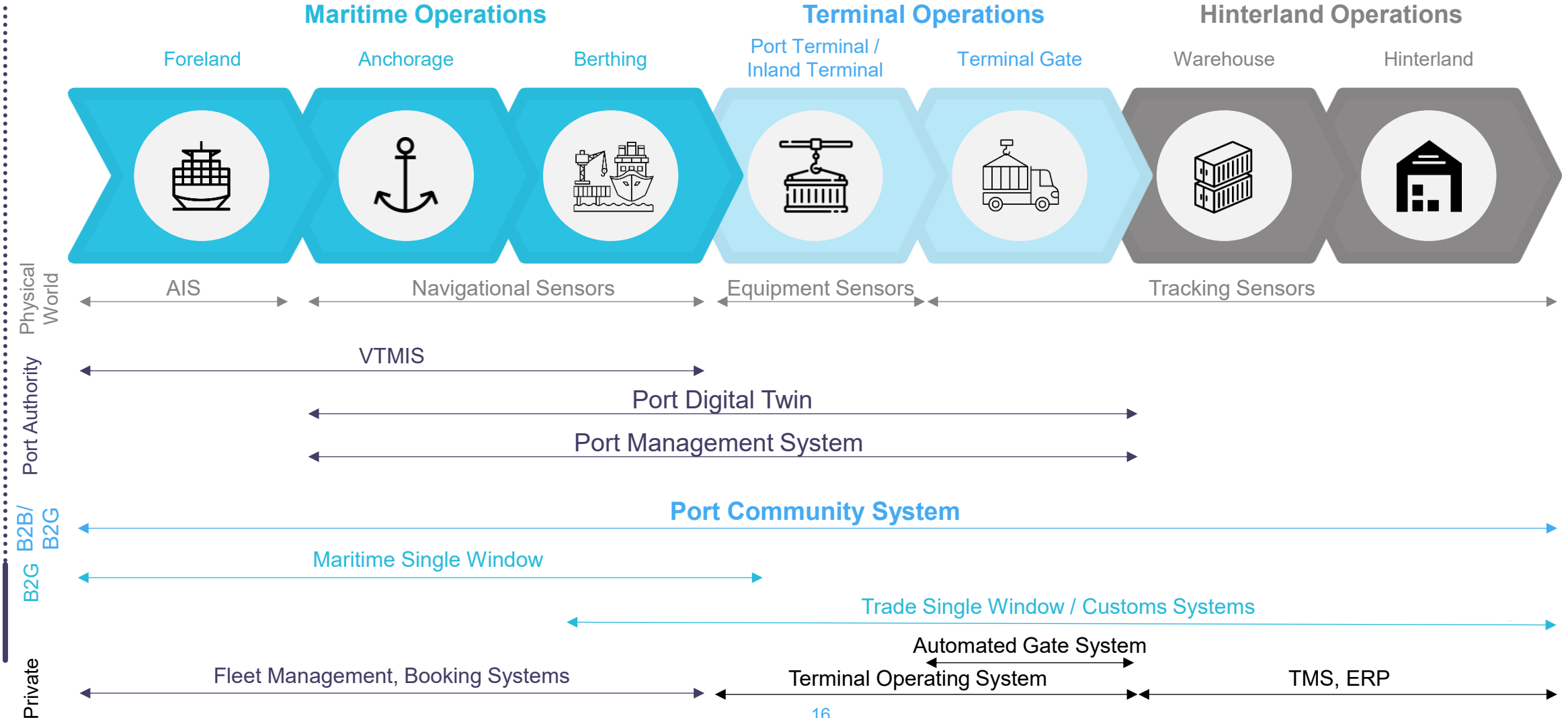
the PCS as a Single Window Environment

PCS FOCUS ON VOYAGE, CARGO AND INTERNAL FLOWS WHILST SW DUTIES INVOLVE DEALING WITH PUBLIC ADMINISTRATION



Port IT ecosystem: the relevance of interoperability

MAIN INFORMATION SYSTEMS IN A PORT MUST INTERACT BETWEEN THEM TO PROVIDE A HOLISTIC VIEW

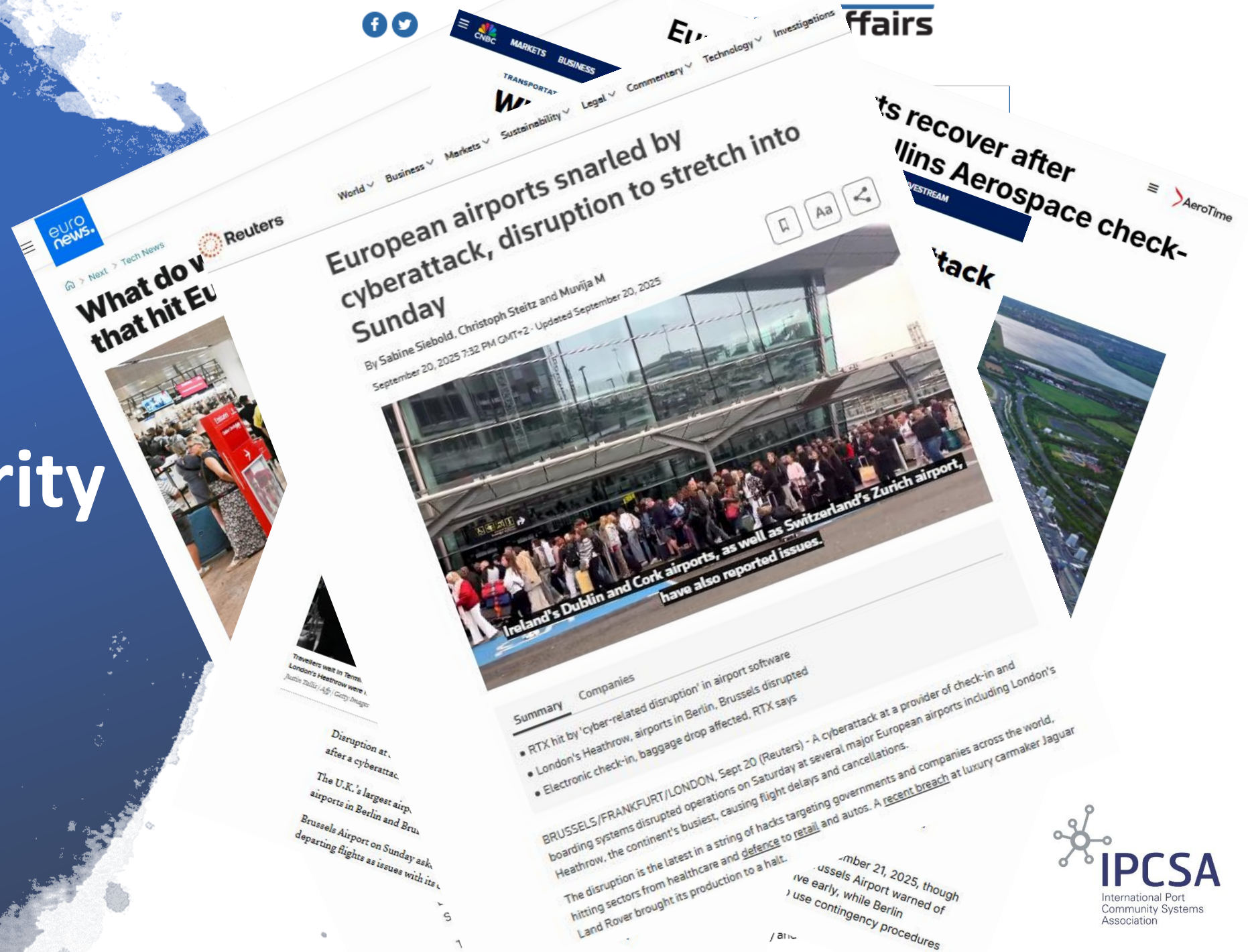


Sustainable Port Management — Challenges & considerations

- **Cybersecurity** risks: more digital → more vulnerable
- **Interoperability**: fragmented systems can limit impact if not harmonized
- **Investment gap**: digital infrastructure requires upfront costs
- **Skills**: workforce must adapt to data-driven tools.

→ But these challenges are also **opportunities to innovate.**

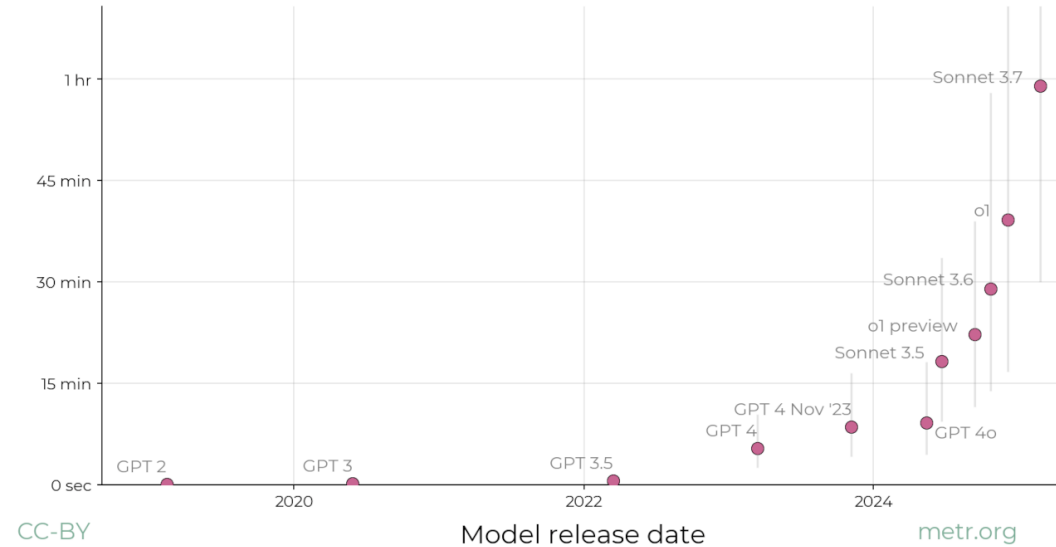
Cybersecurity



Artificial Intelligence

The length of tasks AIs can do is doubling every 7 months

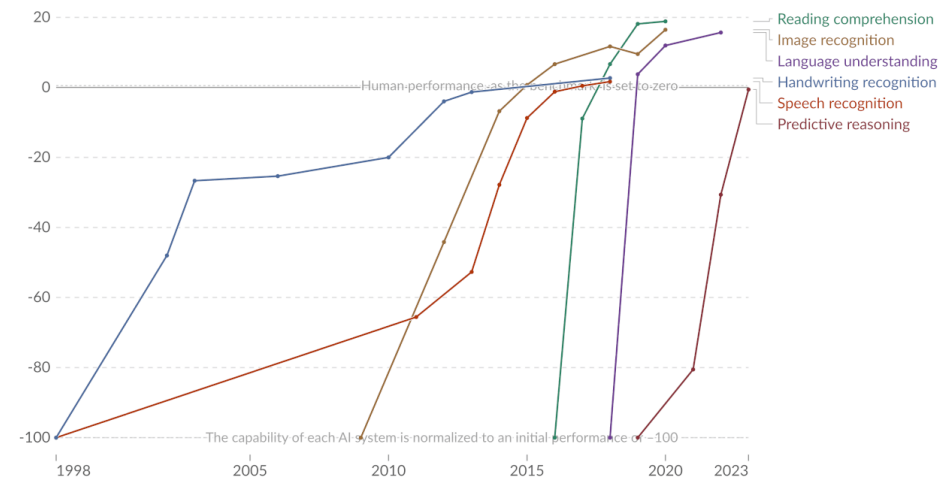
Task length (at 50% success rate)



Test scores of AI systems on various capabilities relative to human performance



Within each domain, the initial performance of the AI is set to -100. Human performance is used as a baseline, set to zero. When the AI's performance crosses the zero line, it scored more points than humans.



Data source: Kiela et al. (2023)

OurWorldinData.org/artificial-intelligence | CC BY

Note: For each capability, the first year always shows a baseline of -100, even if better performance was recorded later that year.



Don't forget...

**“In order to stay the same,
you need to change !”**

*[attributed to Willy Brandt, former Chancellor of West-Germany
from 1969-1974]*



IPCSA

International Port
Community Systems
Association



NETWORK
OF TRUSTED NETWORKS

Connecting and
sharing data globally
between ports and
cross border

PROTECT

THANK YOU

Please send e-mails or questions you may have
as we always are welcome for discussion and collaboration

Nico De Cauwer
Secretary-General, IPCSA

nico.decauwer@ipcsa.international

<https://ipcsa.international>