



SAAB

EFFICIENCY AND EFFECTIVENESS: DATA SHARING AMONG SUPPLY CHAIN

2018 AAPA SMART PORTS CONFERENCE

PAVEL SKOURNIK

WHAT IS HAPPENING AT THE PORT/TERMINAL ?



Agents & Port Community



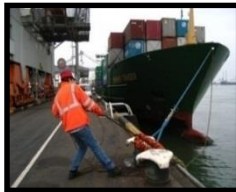
Traffic Management



Pilot Scheduling



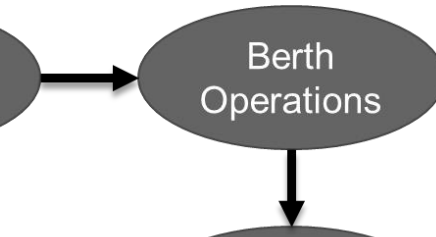
Tug Scheduling



Port Services Planning



Vessel Operations



Berth Operations



Apron to Storage



Storage



Gate Processing



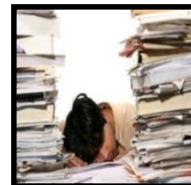
Intermodal Transfer



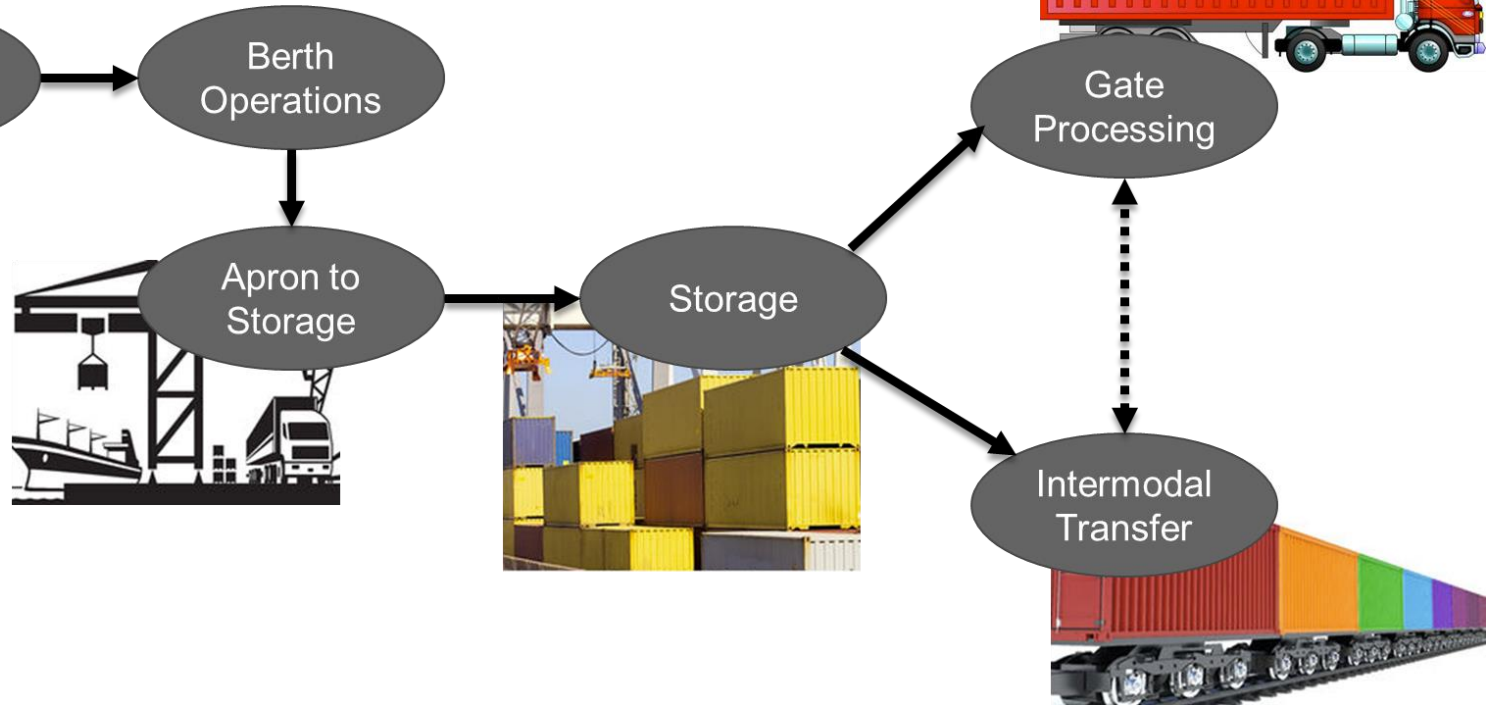
Cargo & Dangerous Goods



Warehouse Management

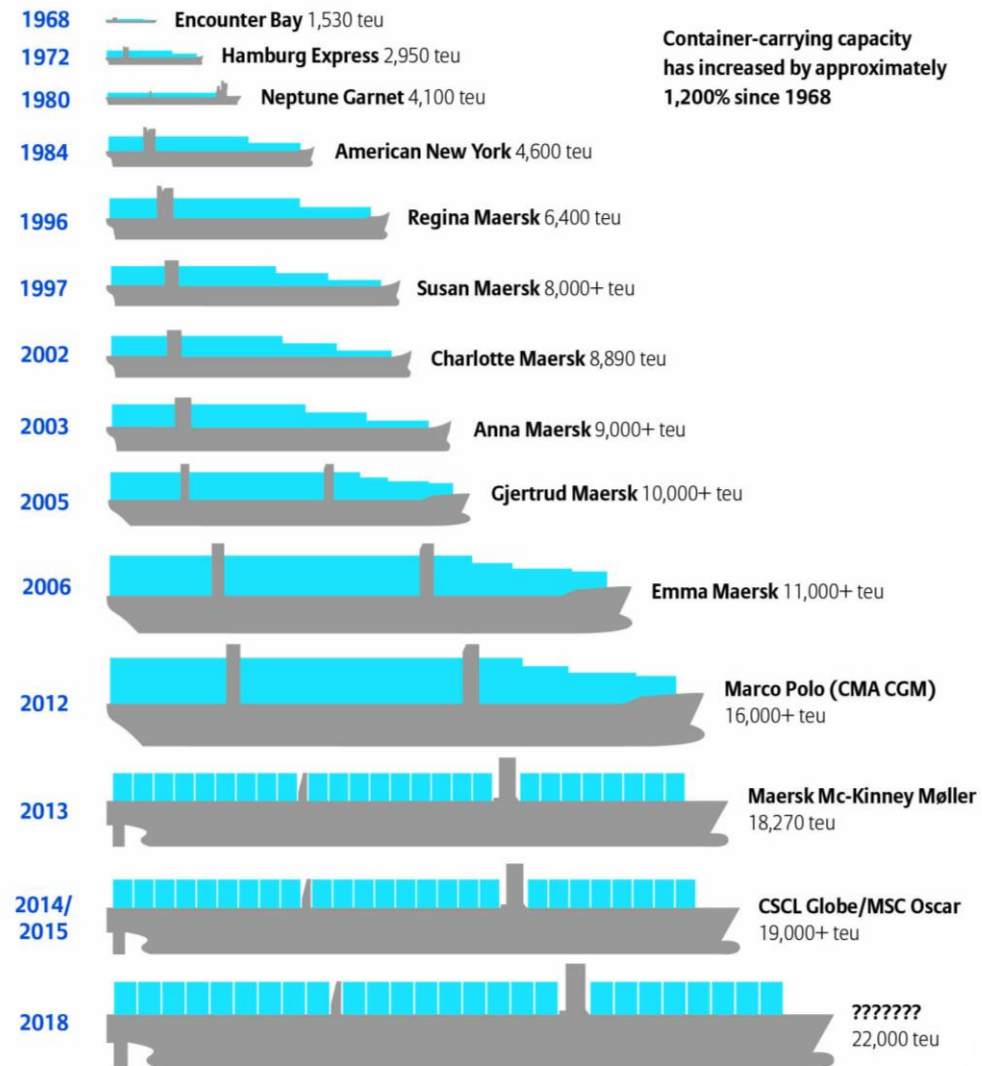


Billing & Accounting



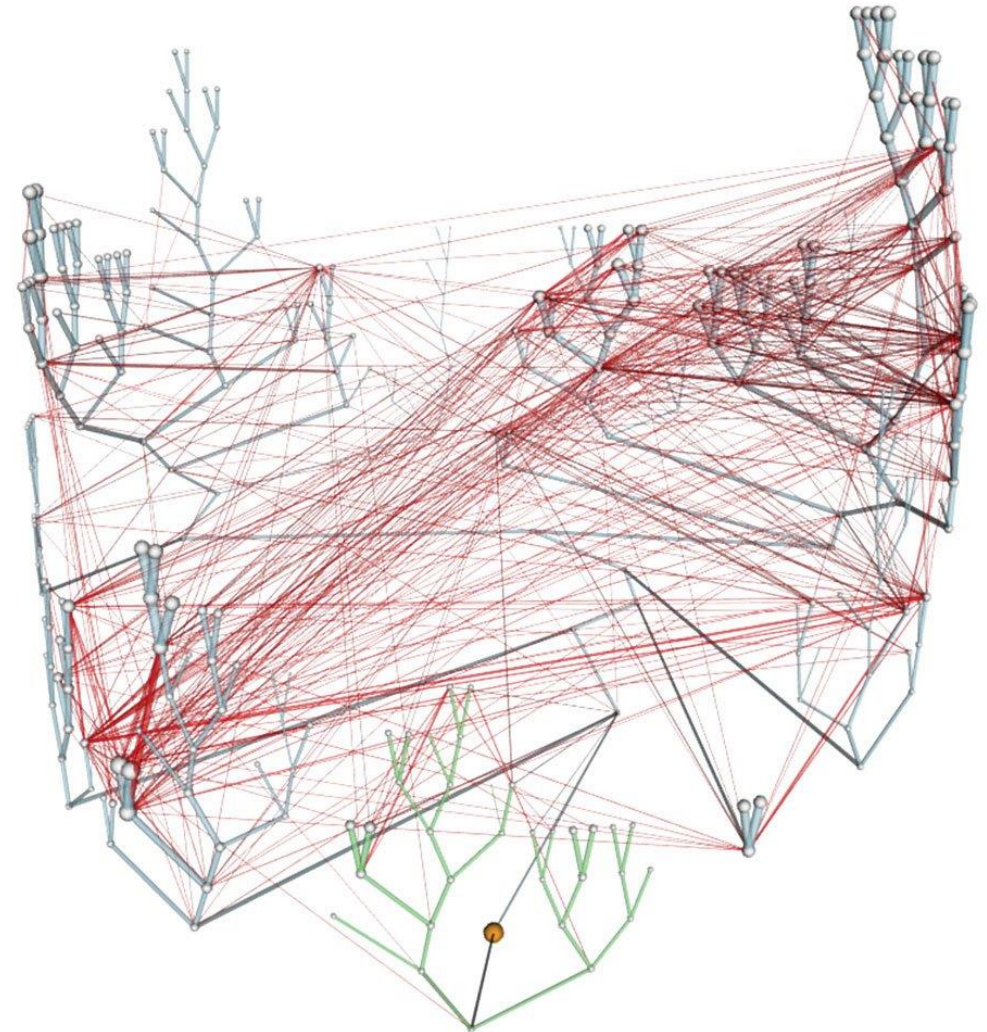
CHANGES TAKING PLACE IN THE INDUSTRY

- Globalization
- Bigger ships
- Rising cost of infrastructure development
- Regulations
- The environment, especially emissions (CO2)
- New levels of security along with new threats
- The world economy affecting the import/export balance



MANAGING INFORMATION IS A COMPLEX TASK

- Volume of Information
- Various types of users
- Information Dispersed
- Different Information Formats
- Different views of information (data, graphical)
- Dispersed locations of input and reporting
- Extensive Reporting Choices (Detailed, General, Formal)



INFORMATION DUPLICATION

- Paper, carbon copy, fax, notes
- White boards
- Magnetic boards
- Rulers
- Sticky notes
- Cargo manifest
- Agent request, confirmation
- Service providers, request, confirmation, change



CHALLENGE

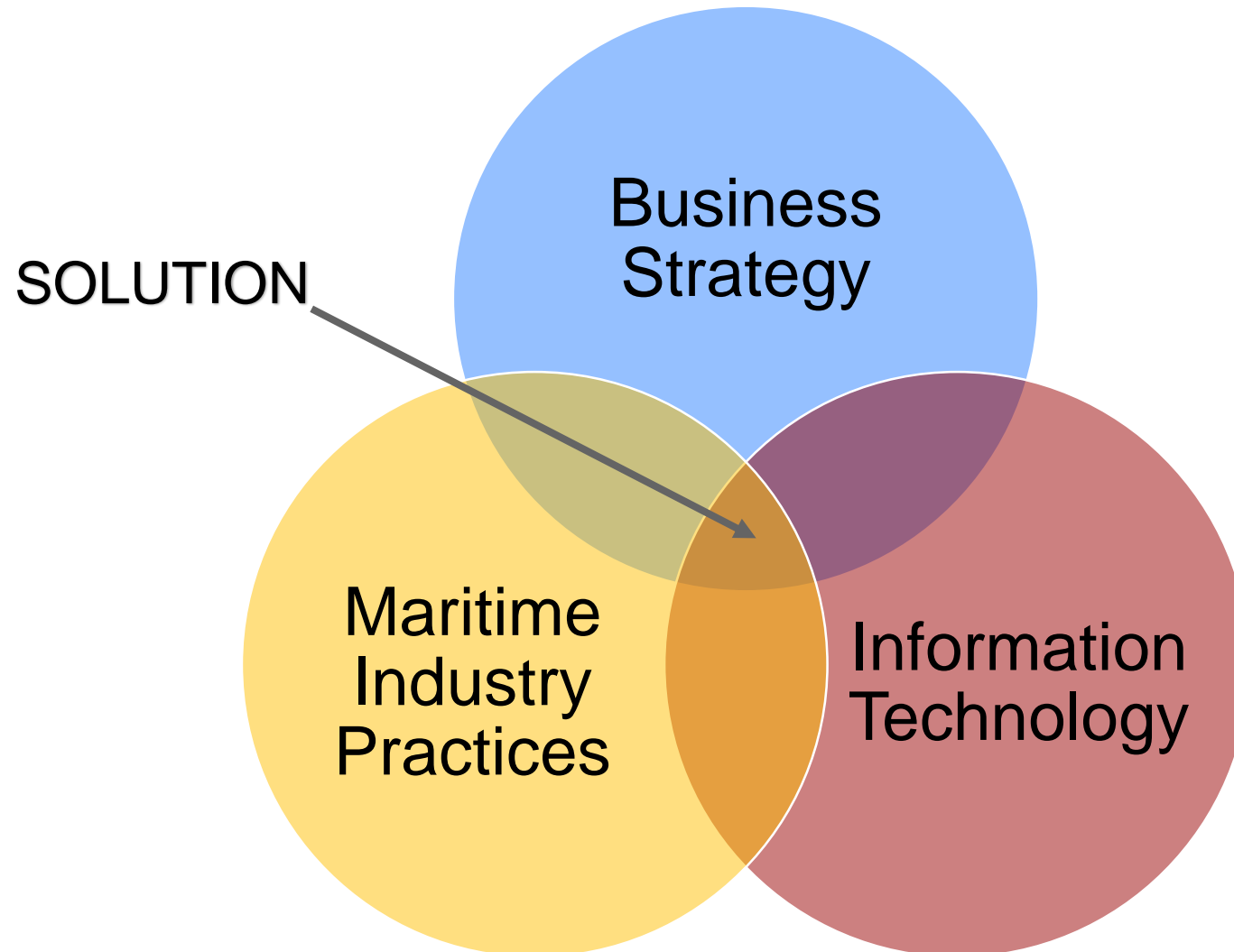
- **Silos of Information**
- **Independent processes between departments and groups**
- **Need to communicate and share accurate data**
- **Have to operate in more efficient & timely way**

GOALS

What do you want to achieve ?

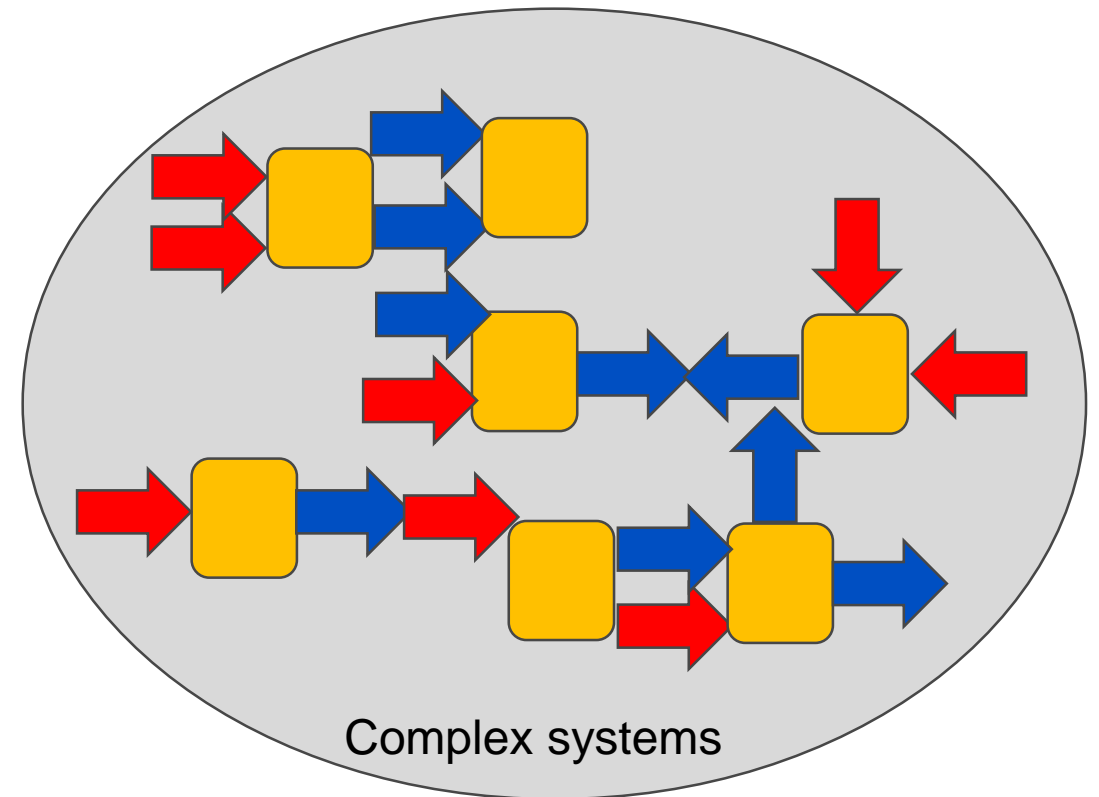
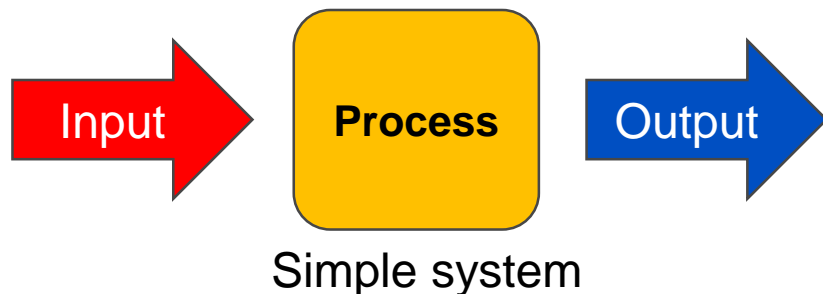
- Cost and Operational efficiency,
- Improved customer service,
- Increase traffic capacity,
- Regulatory demands,
- Expansion,
- Modernisation

IS THERE A SOLUTION?



SYSTEMS CONCEPT

- Think about the port as a system of systems.
- A process has inputs & outputs
- When you have many parts it gets complex
- Issues to deal with in complex systems thinking
 - Are the outputs what I want?
 - Are there unintended consequences?
 - Are the inputs going to the right parts of the system?
 - Which parts could be more efficient?



HOW TO IMPROVE EFFICIENCY?

- Provide everyone with secure and **consistent** information
- Deliver information “anytime and anywhere”
- Create **effective** business processes with partners
- Make it **easy** to collaborate and share information
- Streamline communication
- Collect and use **real** data to **optimize** the outcome

HOW TO GET THERE?

1. Integrated system – Data
2. Integrated communication platform – Communication
3. Common Operating Picture (COP) – Information
4. Collaboration Decision Making (CDM) – Collaboration
5. Operation Optimization – Efficiency
6. Expert systems – Workflow automation

STEP 1 - INTEGRATED SYSTEM

If I put two or more things together, the result should be better than the parts alone

Visit Management

Resource Management

Cargo Management

Billing Management

Property Management

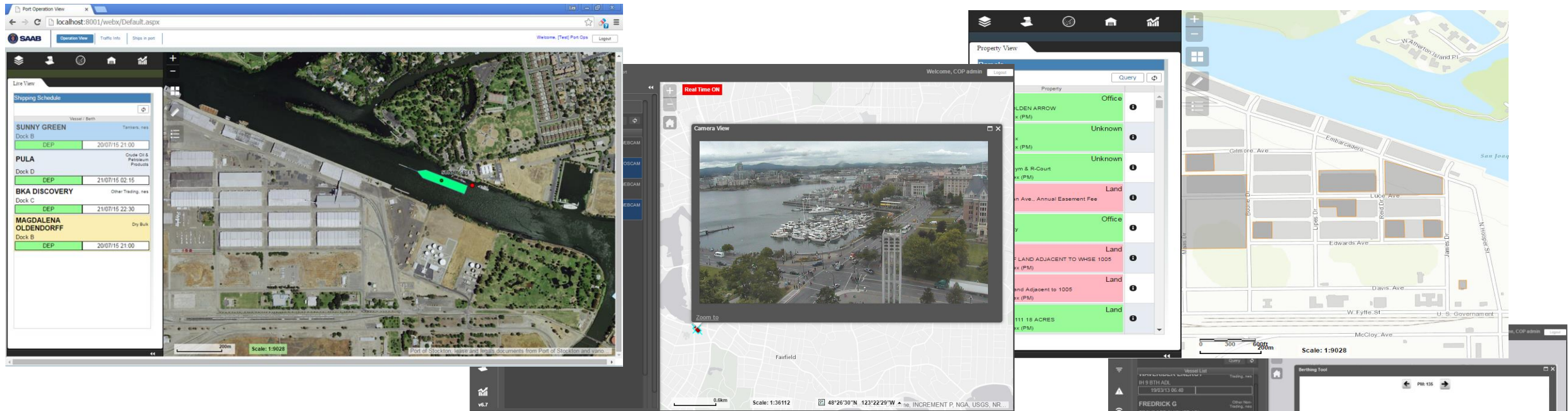


STEP 2 - INTEGRATED COMMUNICATION

- EDI and other 3rd party interfaces
- Email, SMS or other type of messages
- Customs or regulatory reporting needs
- Management & Customer reporting
- Web interface for General Public, Shipping lines, Agents, Service Providers



STEP 3 – COP – INFORMATION SHARING

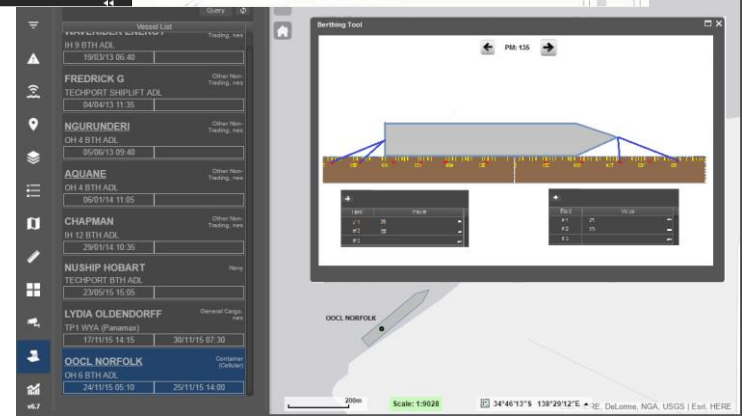


A **COMMON** view of everything happening, planned or that has happened

HOW

WHY?

- Presented on the web
- Presented on a map
- Presented in layers
- Feeds from other systems
- Anyone who has access can see it on any computer or device
- Every piece of information is located geographically, for context
- Layers can be switched on or off to show what you need to see
- To get the best collected representation of reality



STEP 4 – CDM – COLLABORATION WITH PARTNERS

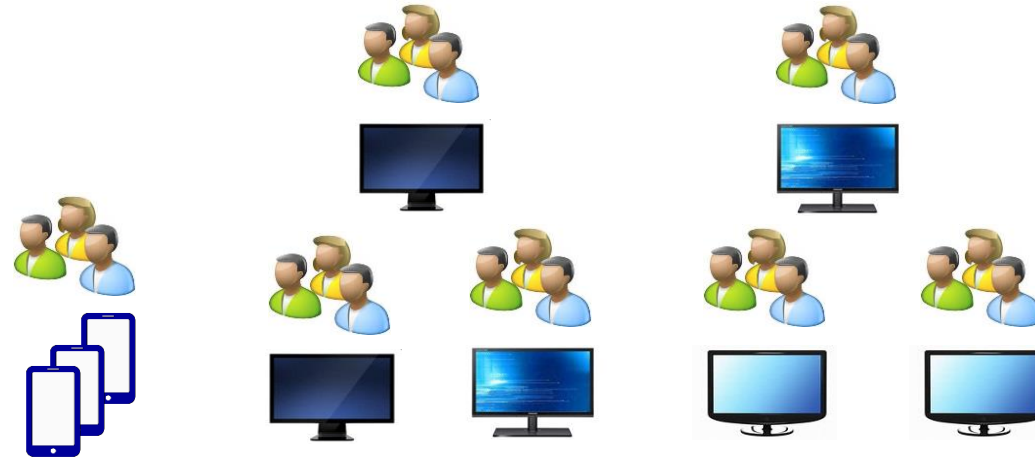
Collaborative Decision Making (CDM) is an approach for making better decisions that:

- Brings the **right people** together,
- Enables them to work collectively from a **common picture with better information**,
- In order to develop a **shared understanding and mutual commitment**,
- And ultimately **improve both the safety and efficiency** of operations.

Running Log Time	Type	Description	Updated By
2015/09/29 15:45	Schedule	[Test] VTSO changes: Invoicing Body, Schedule Time	[Test] VTSO
2015/09/30 11:04	Schedule	[Test] VTSO changes: Schedule Time	[Test] VTSO
2015/09/30 11:20	Schedule	[Test] VTSO changes: Schedule Time	[Test] VTSO
2015/09/30 12:03	Schedule	[Test] VTSO changes: Sch Time: 2015-09-30 03:00	[Test] VTSO
2015/09/30 12:04	Schedule	[Test] VTSO changes: Sch Time: 2015-09-30 16:15	[Test] VTSO
2015/09/30 12:12	Pilotage	Service Confirmed	[Test] Pilot Company
2015/09/30 13:53	Schedule	[Test] VTSO changes: Sch Time: 2015-09-30 19:15	[Test] VTSO
2015/09/30 14:31	Pilotage	Service Confirmed	[Test] Pilot Company
2015/09/30 14:36	Schedule	[Test] VTSO changes: Sch Time: 2015-09-30 19:30	[Test] VTSO
2015/09/30 14:48	Pilotage	Service Rejected, Reason: No pilot available until 20:15	[Test] Pilot Company
2015/09/30 14:49	Stevedore	Service Rejected, Reason: Loader is broken. Back to work at 19:45	[Test] Stevedore SCRUTT
2015/09/30 14:50	Schedule	[Test] VTSO changes: Sch Time: 2015-09-30 21:30	[Test] VTSO
2015/09/30 15:44	Schedule	[Test] VTSO changes: Sch Time: 2015-09-30 21:45	[Test] VTSO
2015/09/30 15:44	Pilotage	Service Confirmed	[Test] Pilot Company
2015/09/30 15:45	Stevedore	Service Confirmed	[Test] Stevedore SCRUTT
2015/09/30 15:47	Boatmen	Service Confirmed	[Test] Boatman JML

Service Type	Service Desc	Service Company	Status	Decline Reason	Serv
JOLANTA (DRY BULK)					
DEPART FROM STORMONT 5		10/01/2015 05:30	AGENT: JOHN BURKE & CO. LTD.		CHANGE LOG
PILOTAGE	DEP FROM STORMONT 5 TO SEA	BELFAST LOUGH PILOTAGE SERVICES LTD	Declined	Pilot only available from 07:00	
BOATMEN	DEP FROM STORMONT 5	D. FERRAN & SONS	Confirmed		
STEVEDORE	DEP FROM STORMONT 5	(Own Use Stevedore)	Requested		
BLACK WATCH (CRUISE)					
ARRIVE TO STORMONT 2		09/30/2015 21:45	AGENT: JOHN BURKE & CO. LTD.		CHANGE LOG
PILOTAGE	ARR FROM SEA TO STORMONT 2	BELFAST LOUGH PILOTAGE SERVICES LTD	Confirmed		
BOATMEN	ARR TO STORMONT 2	JOHN MCLOUGHLIN & SON	Confirmed		
STEVEDORE	ARR TO STORMONT 2	SCRUTTONS NORTHERN IRELAND LTD	Confirmed		
NORWEGIAN STAR (CRUISE)					
ARRIVE TO STORMONT 4		10/01/2015 07:00	AGENT: JOHN BURKE & CO. LTD.		CHANGE LOG
PILOTAGE	ARR FROM SEA TO STORMONT 4	BELFAST LOUGH PILOTAGE SERVICES LTD	Requested		
BOATMEN	ARR TO STORMONT 4	JOHN MCLOUGHLIN & SON	Requested		
STEVEDORE	ARR TO STORMONT 4	(Own Use Stevedore)	Requested		

SIMPLE VIEW OF ADVANCED SITUATION



CDM(collaboration)

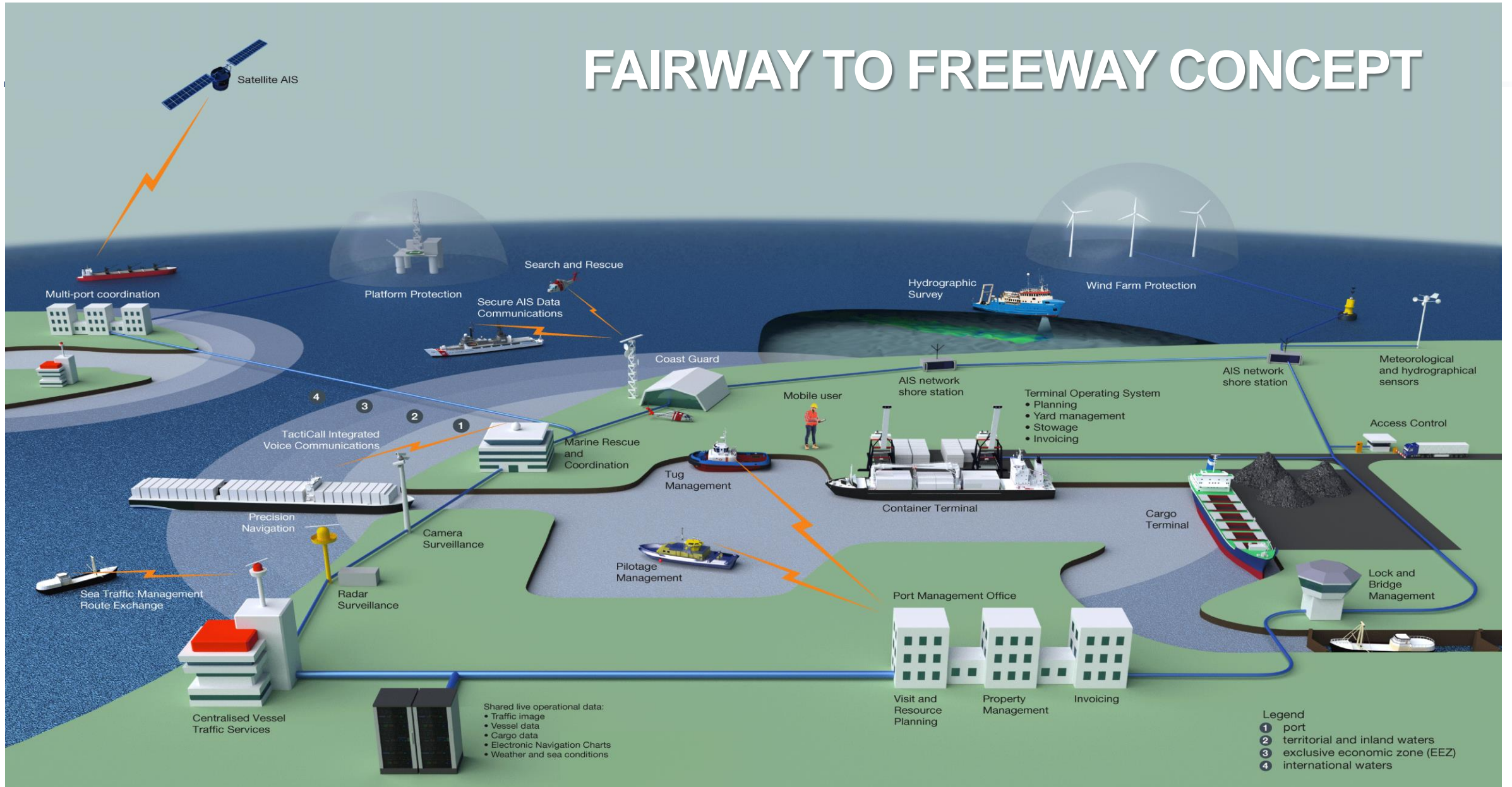
COP(information)

Optimization
(efficiency)

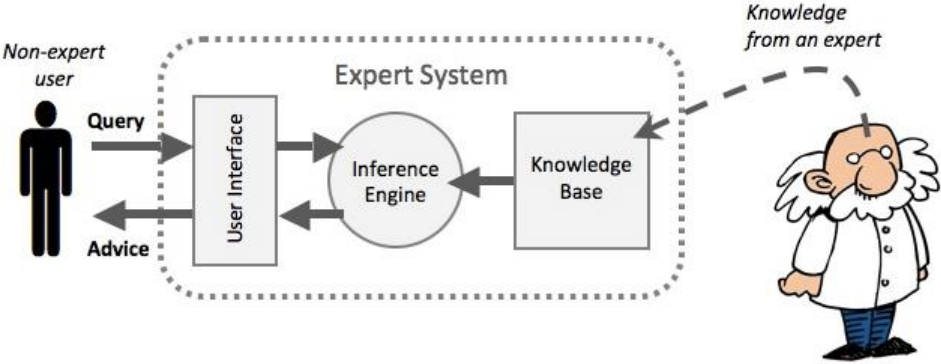
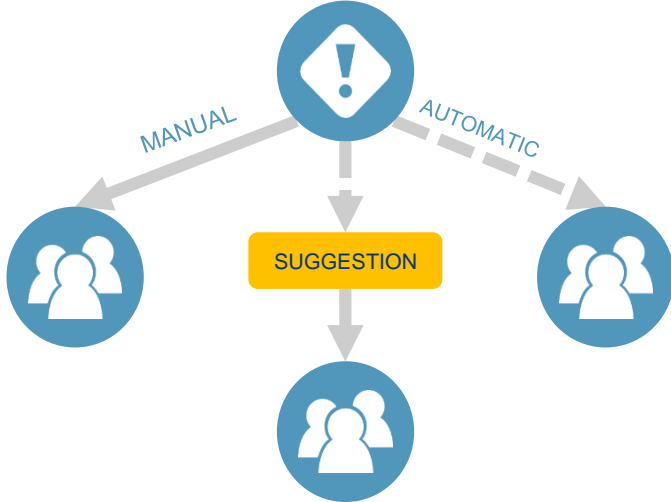
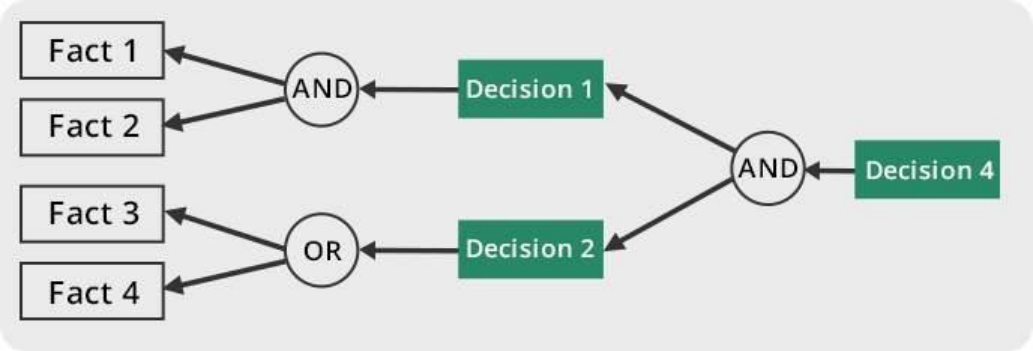
System of Systems (data)

Reports and Interfaces (communication)

FAIRWAY TO FREEWAY CONCEPT



EXPERT SYSTEMS / WORKFLOW AUTOMATION



**USER INTERFACE + KNOWLEDGE
INCREASES FOCUS FOR EACH ROLE**

THANK YOU

Questions?

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INTRODUCTION

- Presenter: Pavel Skournik
 - Head of Ports and Terminals Management, Maritime Traffic Management, Saab
 - Managing Director, Saab Technologies LTD
- Our Why: ***“We Make Maritime Trade Safe and Efficient Around the World”***
- Maritime Traffic Management
 - Operations in Canada, Australia, Netherlands, Belgium, India, Sweden, Hong Kong, USA
 - Fairway to Freeway solutions – integrated end-to-end solutions for ports
 - Coastal Surveillance solutions – integrated solutions for countries and coastlines
- Solutions include
 - Port Management Information Systems - **PORTCONTROL**
 - VTS and VTMIS solutions – **MARITIMECONTROL**
 - Terminal Operating System - **TERMINALCONTROL**



ARE YOU READY TO MAKE THE WINNING MOVE?

Managing maritime traffic requires solving immediate challenges and planning ahead. The choice of supporting tools is a strategic one. What you decide on is likely to be with you for years to come.

Saab offers a comprehensive suite of innovative products to make your maritime operations safer, more efficient and more secure. We supply proven solutions for:

- Visual Traffic Services
- AIS solutions and networks
- Coastal Surveillance
- Port and Terminal Management
- Pilot Dispatch
- Hydrography

Ports can distinguish themselves by getting cargo from ship to inland transport with minimal delay. In our **Freeway to Freeway** concept, Saab solutions work together to make that happen, helping all involved optimize their flow. The immediate result is a more efficient and profitable port.

The world does not stand still, and neither does Saab. Thanks to our **Thinking edge**, we have a unique ability to stay ahead of technological, operational and environmental developments. Let our staff apply their broad maritime expertise to deliver a comprehensive solution to meet your specific needs. Contact us at info@saabgroup.com or visit us at saab.com/marine.

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