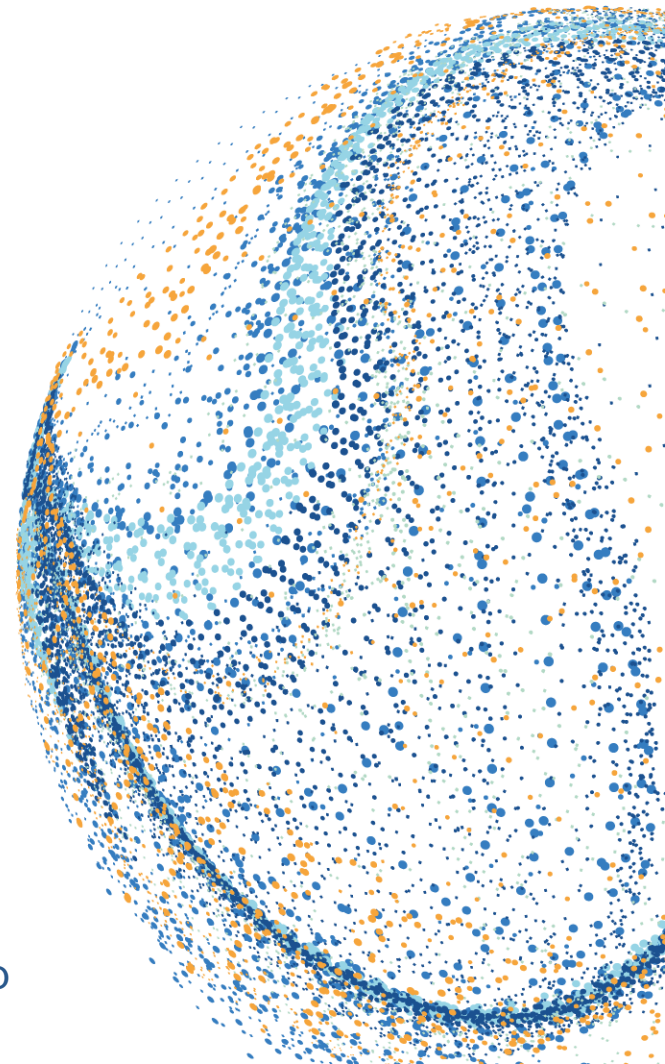


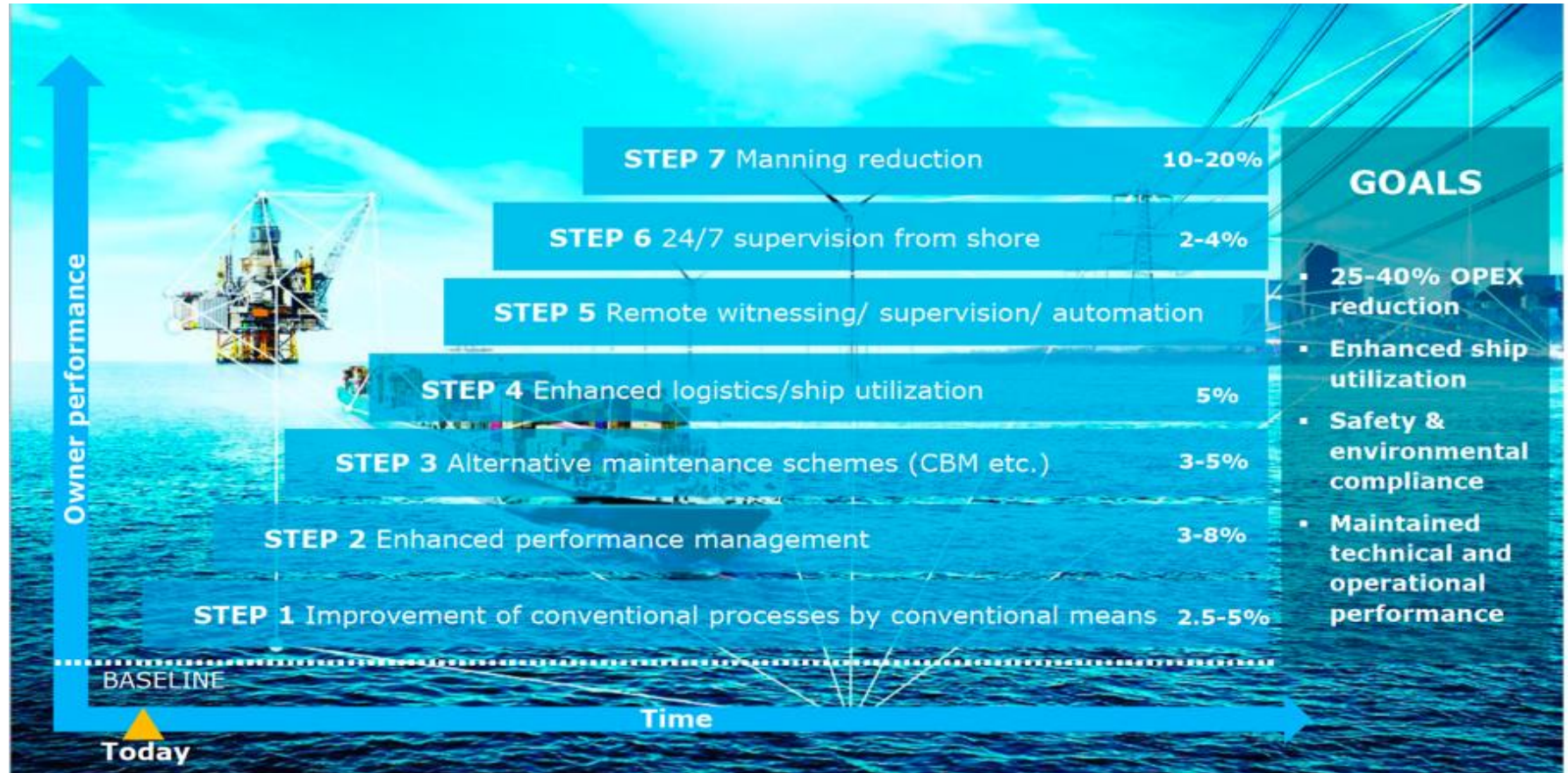
Digital innovation in the maritime industry

Inge Andre Sandvik – Chief Digital Officer – Wilhelmsen Group



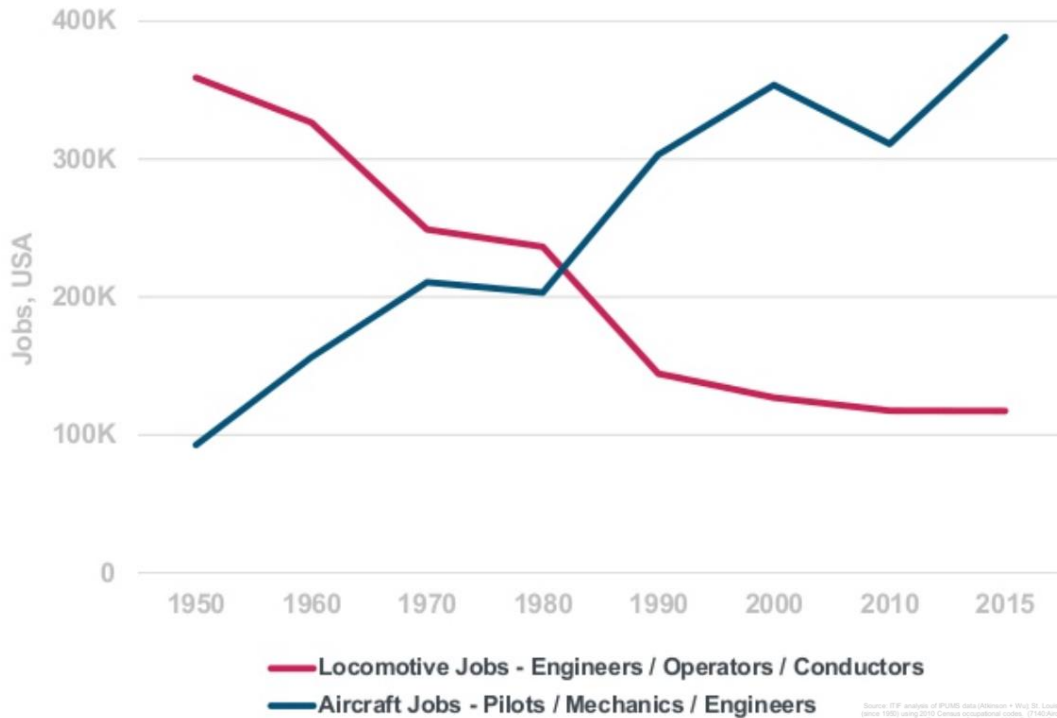
Utilizing data & technology better - A probable industry business case

25-40% OPEX reduction



Aircraft Jobs Replaced Locomotive Jobs

Locomotive vs. Aircraft Jobs



Source: ITP analysis of PUMS data (Atkinson + Wu), St. Louis Federal Reserve FRED Database. Note: PUMS data tracks historical employment since 1960 using 2010 Census occupational codes. 0140 Aircraft Mechanics + Service Technicians; 9200 Aircraft Pilot + Flight Engineers; 9201 Locomotive Engineers + Operators; 9202 Railroad Brake, Signal + Switch Operators; 9240 Railroad Conductors + Yardmasters.

We have just started a new major technology shift

Internet of Things and how we build software will totally change all industries

Mainframes



1970

Client/server



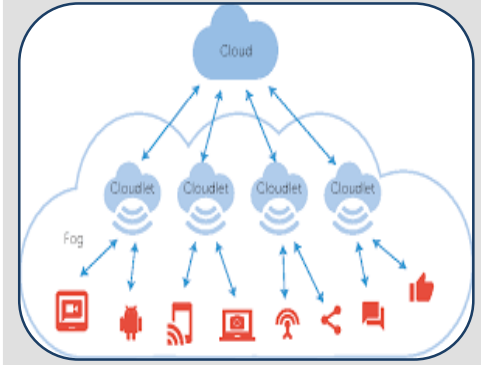
1990

Cloud



2000

Fog



TODAY

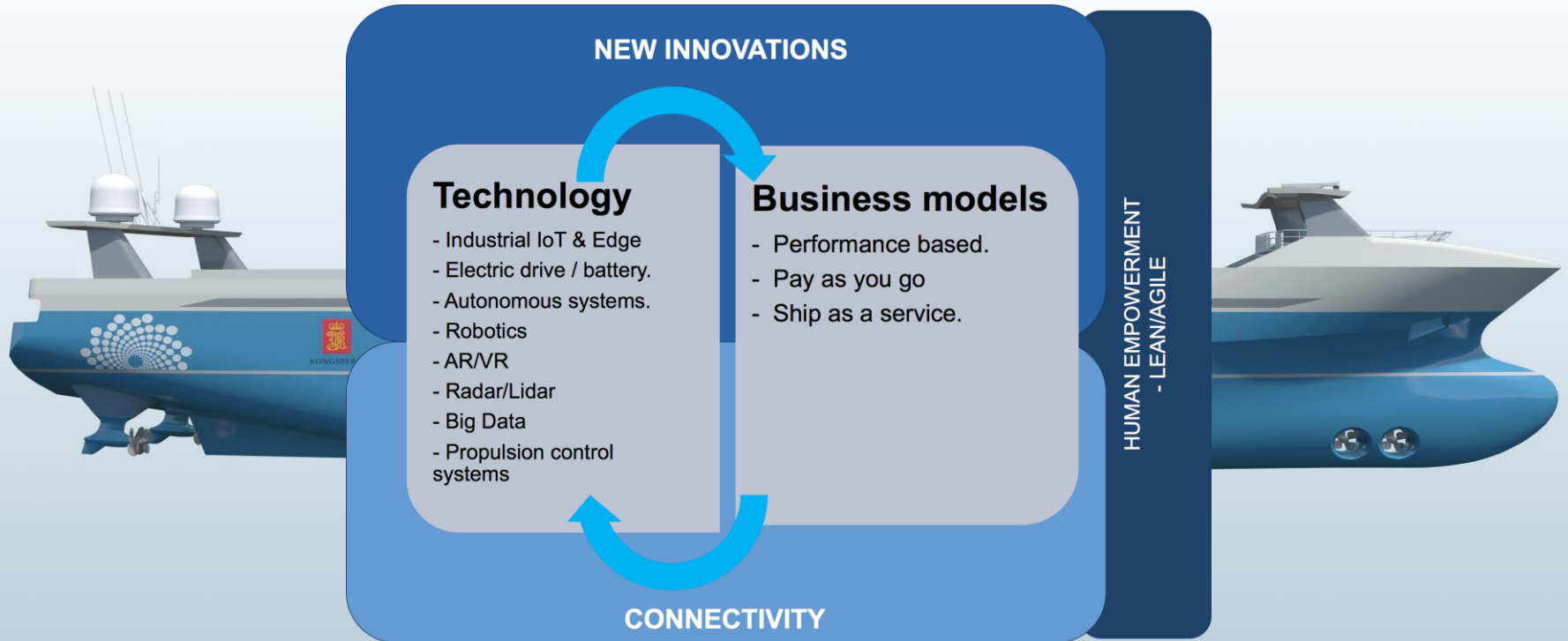
DIGITAL BUSINESS TRANSFORMATION

CONVERGENCE BETWEEN TECHNOLOGY INNOVATION AND BUSINESS MODEL INNOVATION ENABLED BY CONNECTIVITY



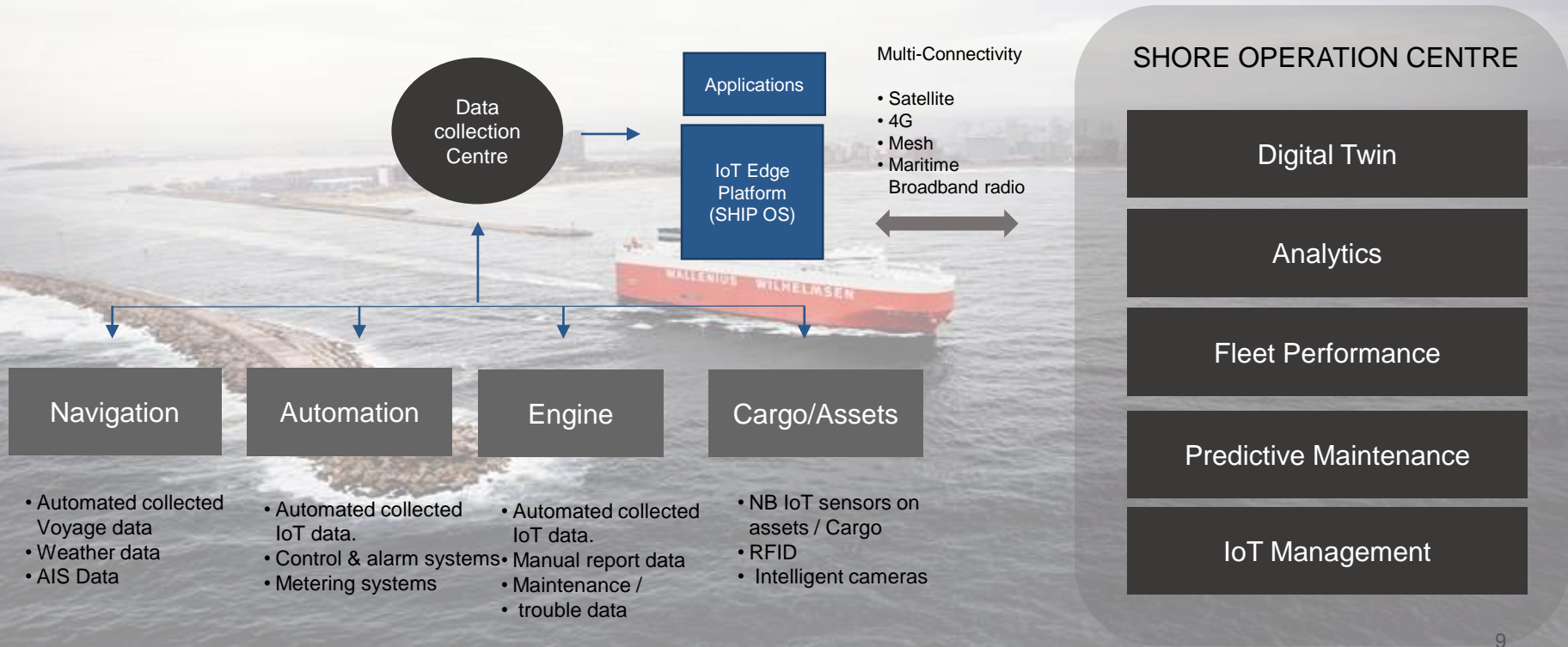
MASSTERLY - YARA BIRKELAND

New Technology Innovation & New Business Model Innovation



DIGITISATION IS CHANGING THE SHIPPING INDUSTRY

Leveraging on the position as data owners will fundamentally change the way we operate our business and serve our customers.



The need of a digital platform that break the silos and creates an agile organization that is prepared for higher speed and more demanding customers.

Architecture need to be based on cross industry open standards



Open Technology
platforms

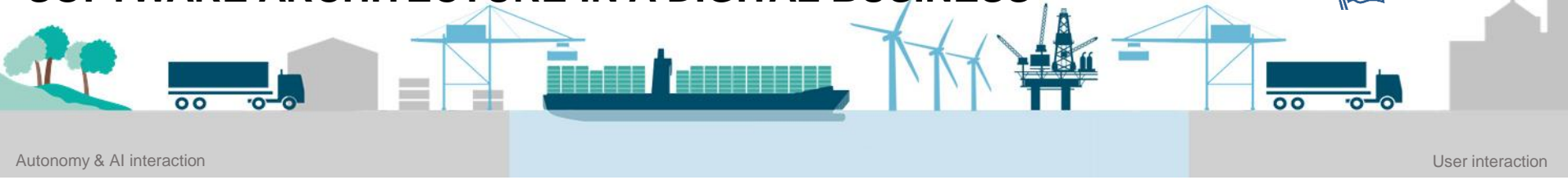


Shared and re-usable applications



Proprietary Wilhelmsen application

SOFTWARE ARCHITECTURE IN A DIGITAL BUSINESS

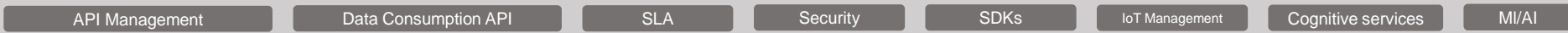


Autonomy & AI interaction

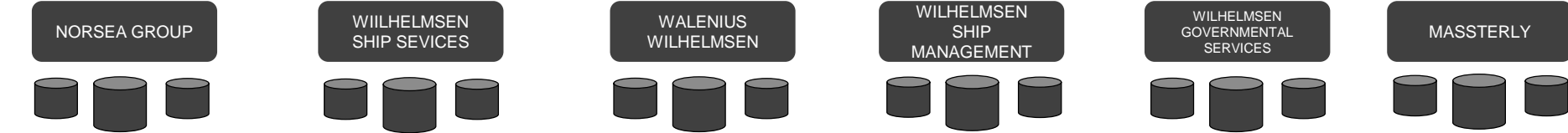
User interaction



Digitalization Accelerator Framework



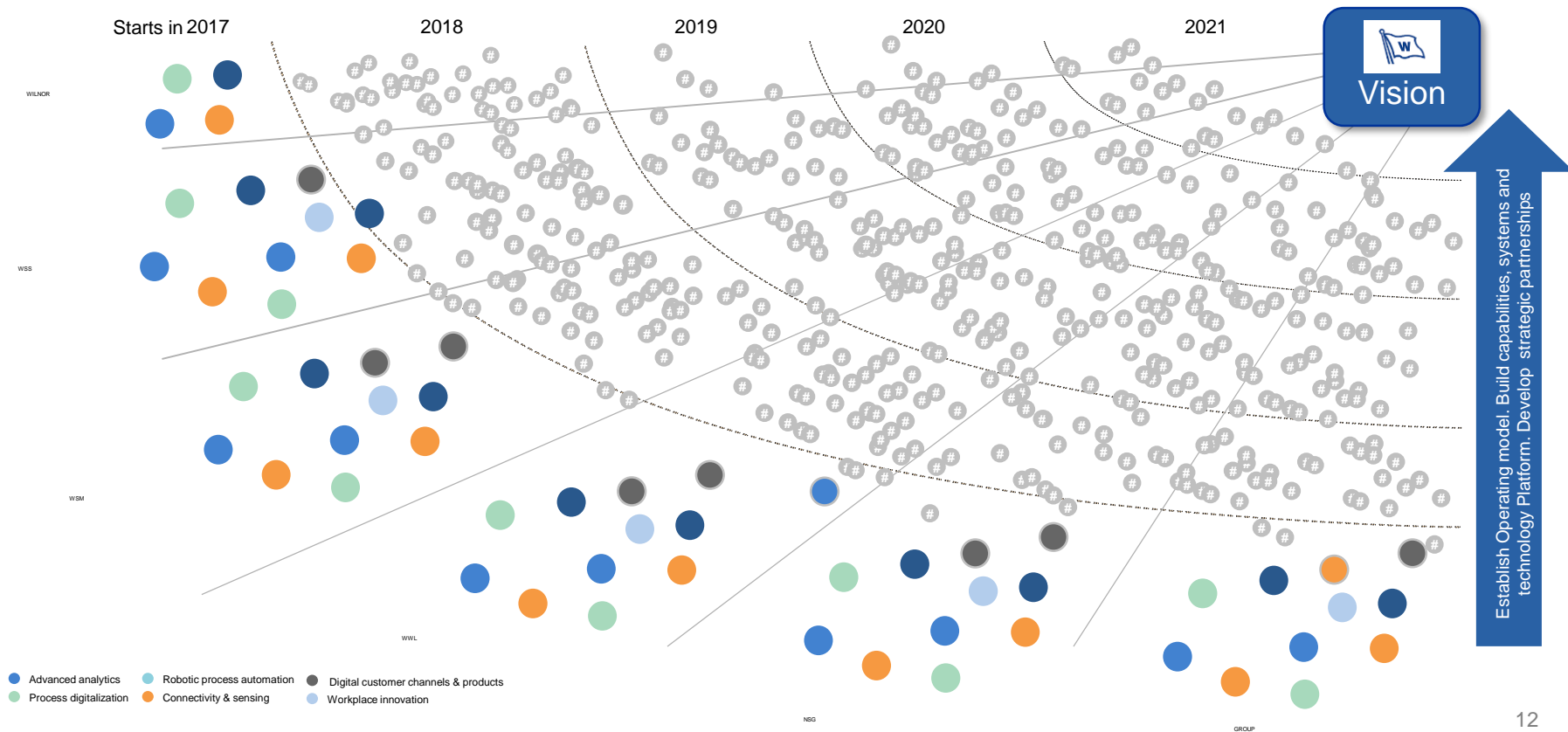
COMPANY GROUP DATA STORED IN SILOS. NO/LOW CONTEXTUALIZATION HORIZONTALLY



Digital Roadmap to reach the vision.

Prioritized projects and product development

Redefine how we serve our customers and position Wilhelmsen as the shaper of the maritime industry.



The digital accelerator model



Accelerators/Incubators

Maritime Clusters

VCs

Academia



Maritime Innovation Lab

Partners



KONGSBERG

- Kognif.ai



DNV-GL

- Veracity



- Office space
- Industry experts
- Access to marketplace
- Investment



- Cognite

Microsoft



Thank you!

@ingesandvik
inge.sandvik@wilhelmsen.com

