Achieving Digital Success Requires Sharing Knowledge and Experiences
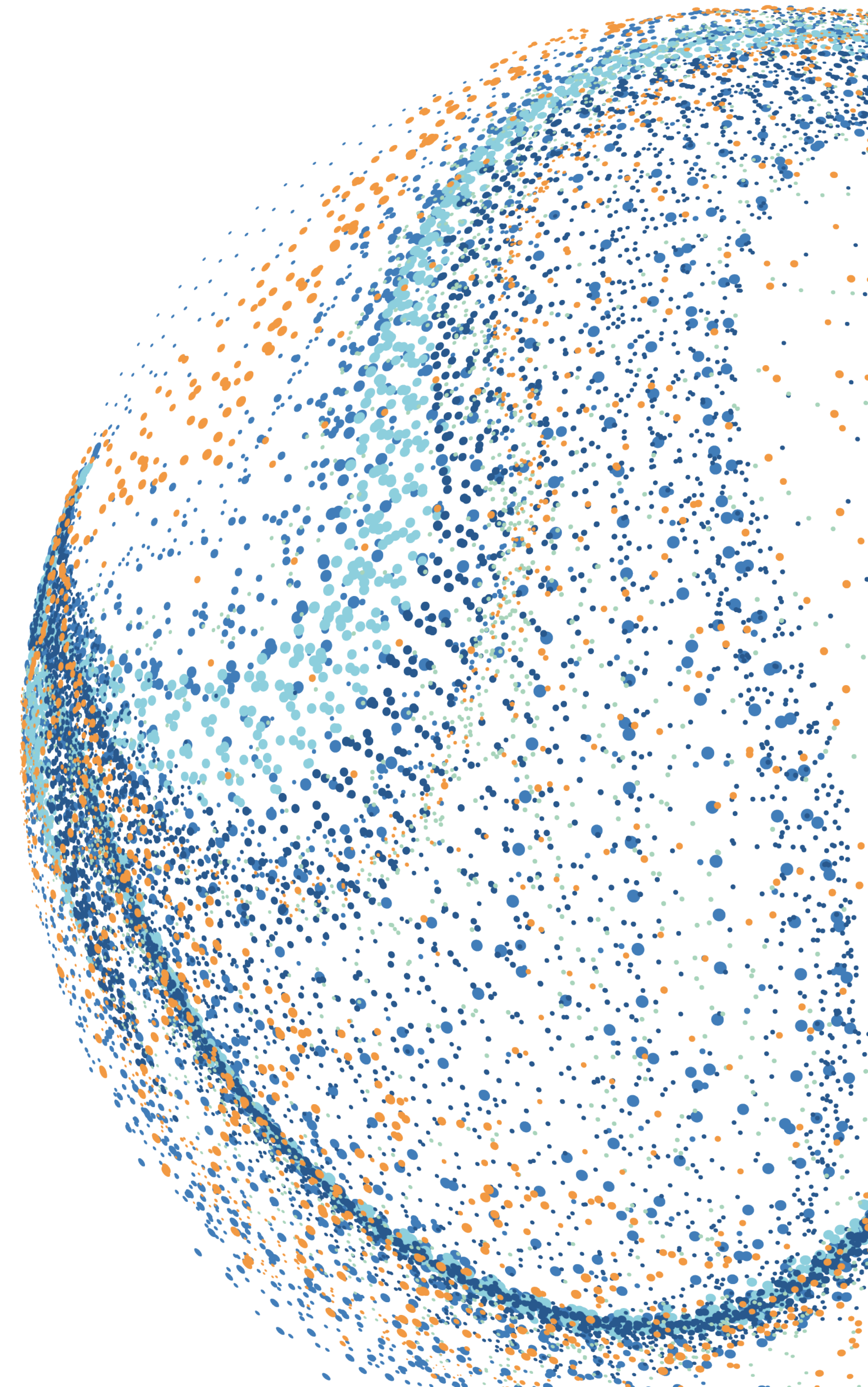
Inge André Sandvik, Chief Digital Officer, Wilhelmsen.

Wilhelmsen in numbers
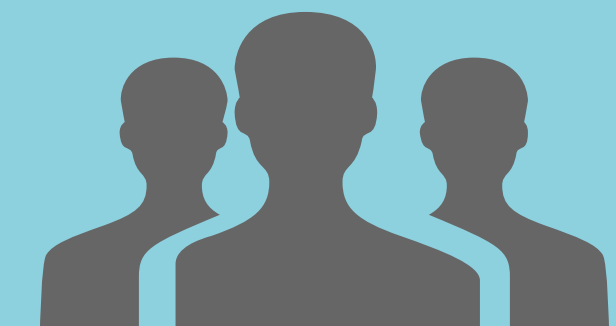
2.8
Billion USD in total revenue (2016)

1.3
Billion USD in market capitalisation.
Listed on the Oslo Stock Exchange.

1861
Established in Tønsberg, Norway by Morten Wilhelmsen

21.000
Full time employees in controlled companies.
4600 land based fully owned.
9 200 seafarers.

50
Percent of global merchant fleet as customers

75 000
Port calls handled by our Port Agents

74
Countries we are present in and more than 2200 ports

210 000
Product deliveries to vessels

128
Vessels in partly owned companies

1
Headquarters in Oslo Norway

Our global network

Largest maritime network in the world, representing over 2 200 locations globally

Uniquely positioned in the whole value chain of the maritime industry

Technical management

Ships agency

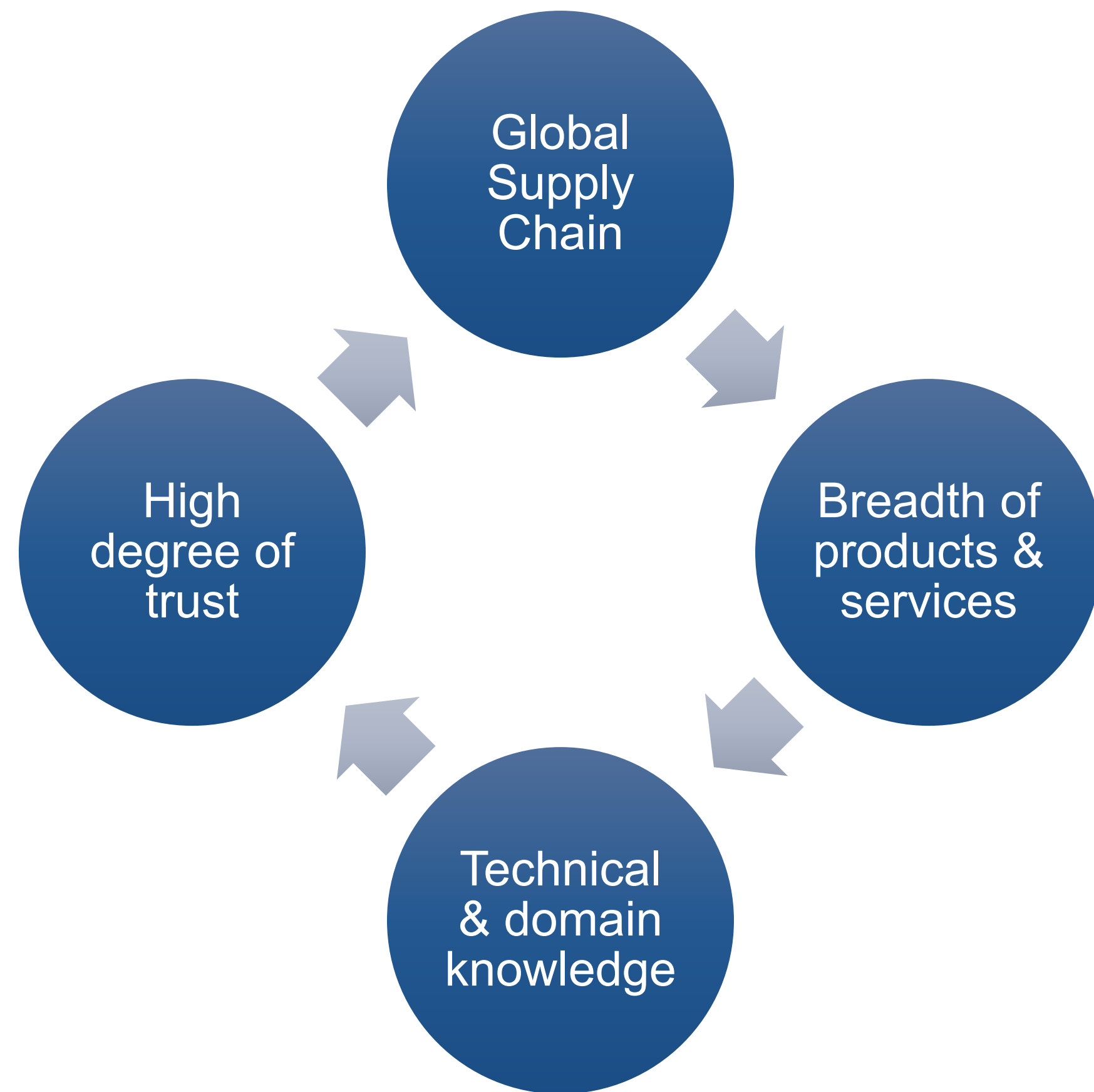
Marine products

Crewing and training

Investments and innovation

Terminals and logistics

We are going after the digital leadership in the maritime industry from a strong position

Global Supply Chain

Breadth of products & services

Technical & domain knowledge

High degree of trust

Wilhemsen is going after the digital leadership in the maritime industry from a strong position of having a global supply chain with a breadth of strong products, high domain knowledge and high degree of trust.

We have the worlds largest maritime network. We have a strong brand. We have one of the strongest customer bases in the shipping industry.

We have a strong history that have proven that we are able to transform the company and understand both the market and disruptive opportunities.

We are positioned with companies throughout the whole value chain and this gives us a unique position as data owners – the foundation for digitisation.

WHAT DOES DIGITAL TRANSFORMATION MEAN FOR US?

Move from

To

Move from	To
Acting as individual companies in a industrial group	Shape the maritime industry by leveraging the synergy effects of having unique access to aggregated customer and industry data generated from of being a maritime leader in the last two centennials.
Being too vendor driven. Move from buying and customizing off the shelf software without having customers and employees more actively involved.	Building new customer experiences and products ourselves together with our customers, partners and competitors.
Move from products to solutions.	Create a digital platform that enable us to build industrial IoT/Big Data solutions with high customer value and that protect our desired market position.
Manual capturing and processing of data	More use of automatic capturing and robotic processing of data
Closed, hierarchical and monolithic organization	More open innovation with customers, partners, and vendors in innovation labs. Develop strategic partnerships by actively using accelerators and incubators to innovate and extend our footprint.
Slow moving. Move from large waterfall managed projects with low involvement from customers and business stake holders.	Create a agile and design thinking culture. Empathy driven, human centered and rapid prototype methodology for new innovation. Create a strong product management competence. Organize ourselves in more effective smaller teams and cross-functional squads to amplify the strength and synergies of being a industry group.

New digital technologies are re-shaping the world

Big data & analytics

Instant analysis of large data sets to identify new patterns

Cloud computing/storage

Highly scalable, variable-cost storage & processing on demand

Collaborative technology platforms

Employee engagement and collaboration enabled by digital platforms and communities

Virtual reality

Interact more naturally with digital devices and services

Real-time communication and tracking

Every asset, equipment, employee always connected

3D scanning

Analyses of real-world object or environment to collect data on its shape / appearance

Additive manufacturing

Print objects & parts on demand with increasing precision, and range of materials
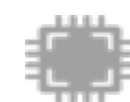
Mobile connectivity & AR

Virtual telepresence to remove the need for on-site humans and omnipresent mobile devices
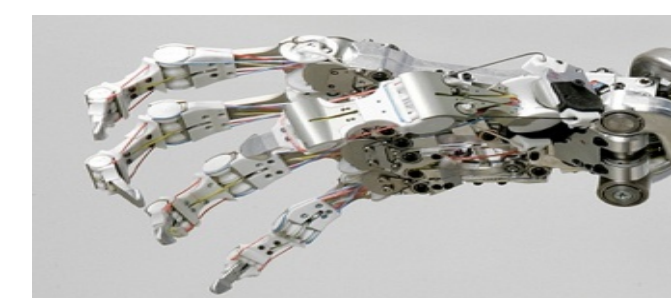
Unmanned aerial vehicles

Autonomous, low-cost vehicles able to perform complex tasks and remove human presence

Sensors

Low cost, low power, connected sensors capturing spatial and environment information

Robotics & automation
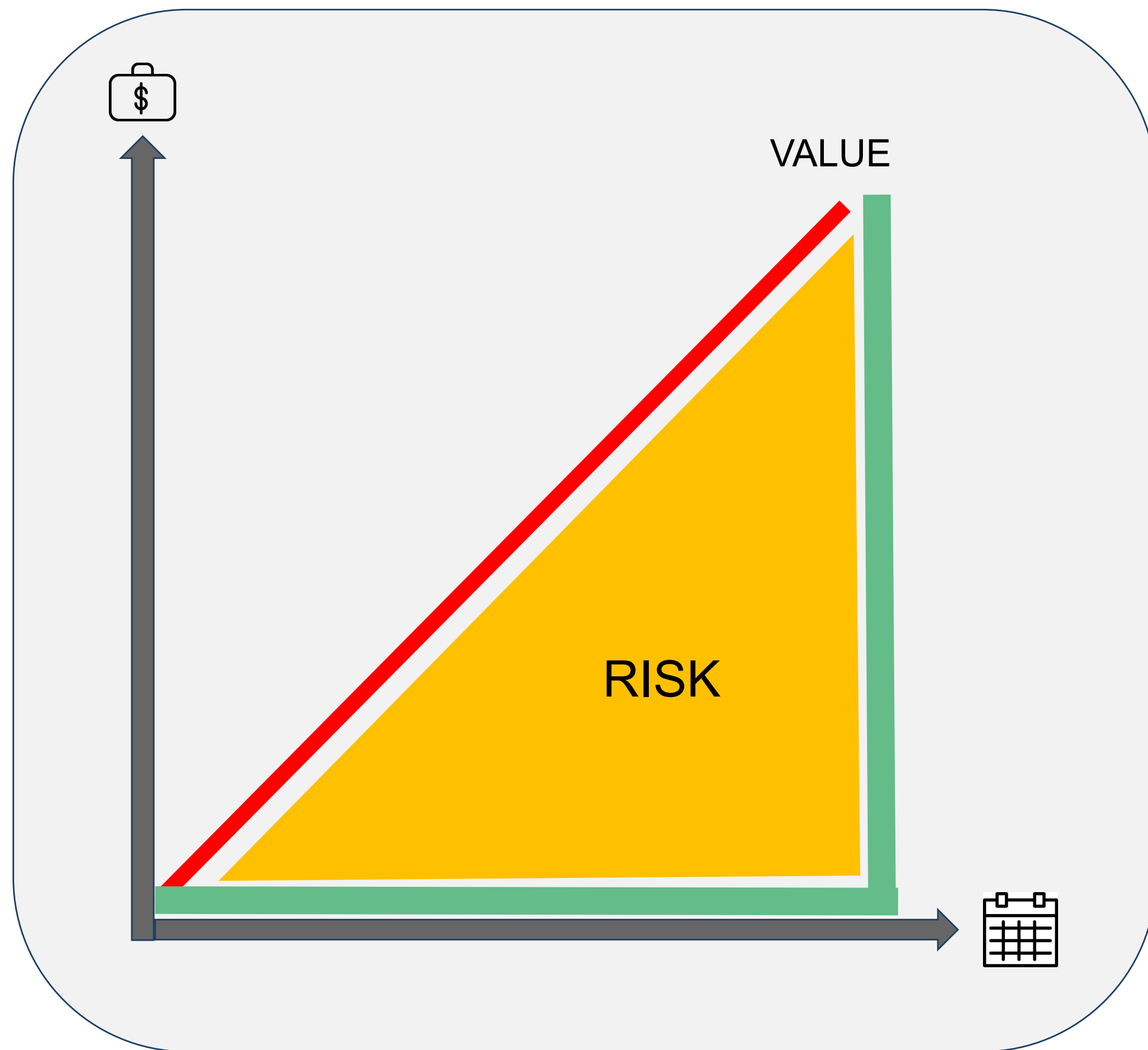
Intelligent robots take on complex assignments
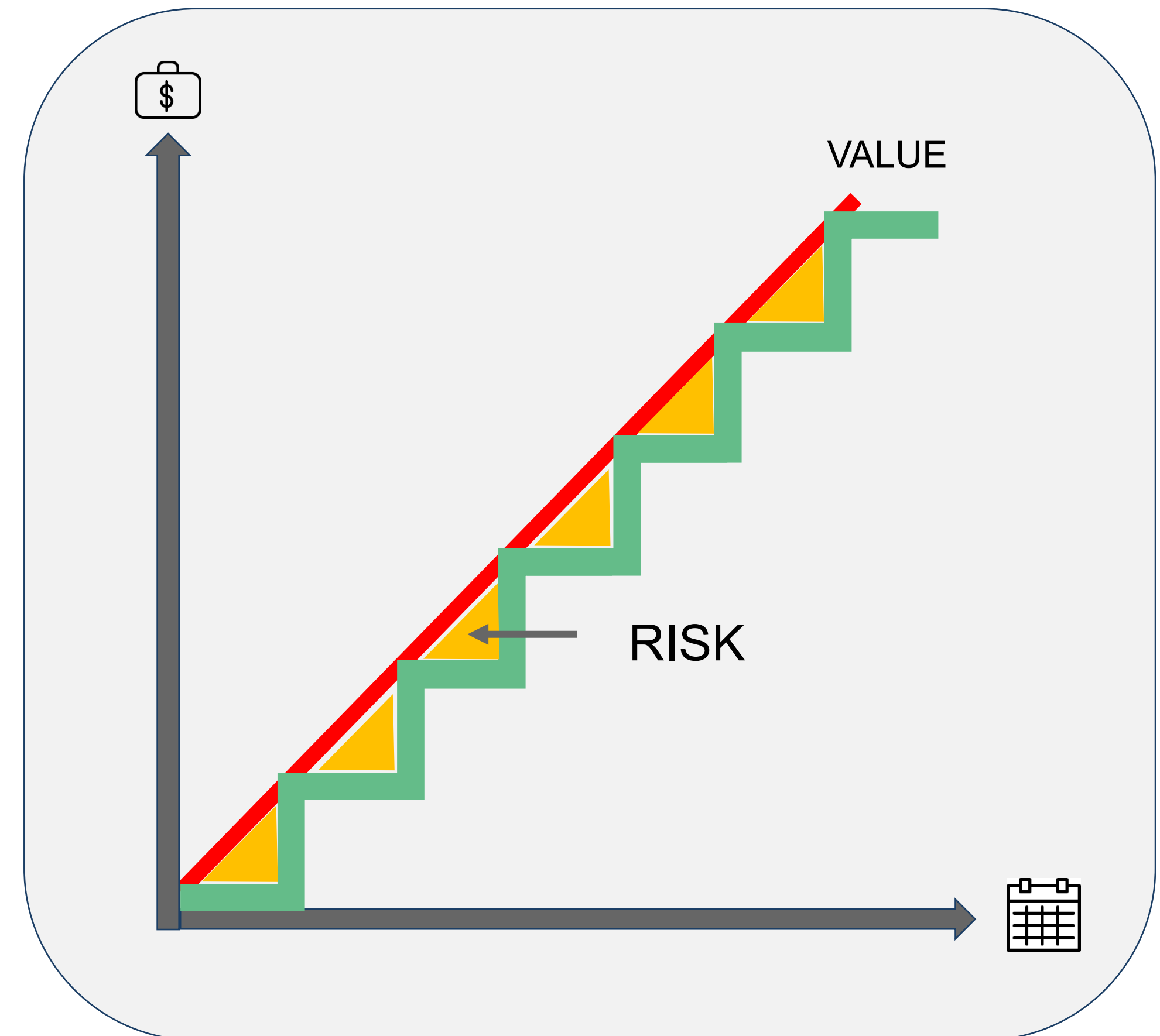
Cyber security

Protecting system integrity is a "must-have"

NEW AND AGILE WORK METHODS ARE RE-SHAPING THE WORLD

MOVE FROM

TO

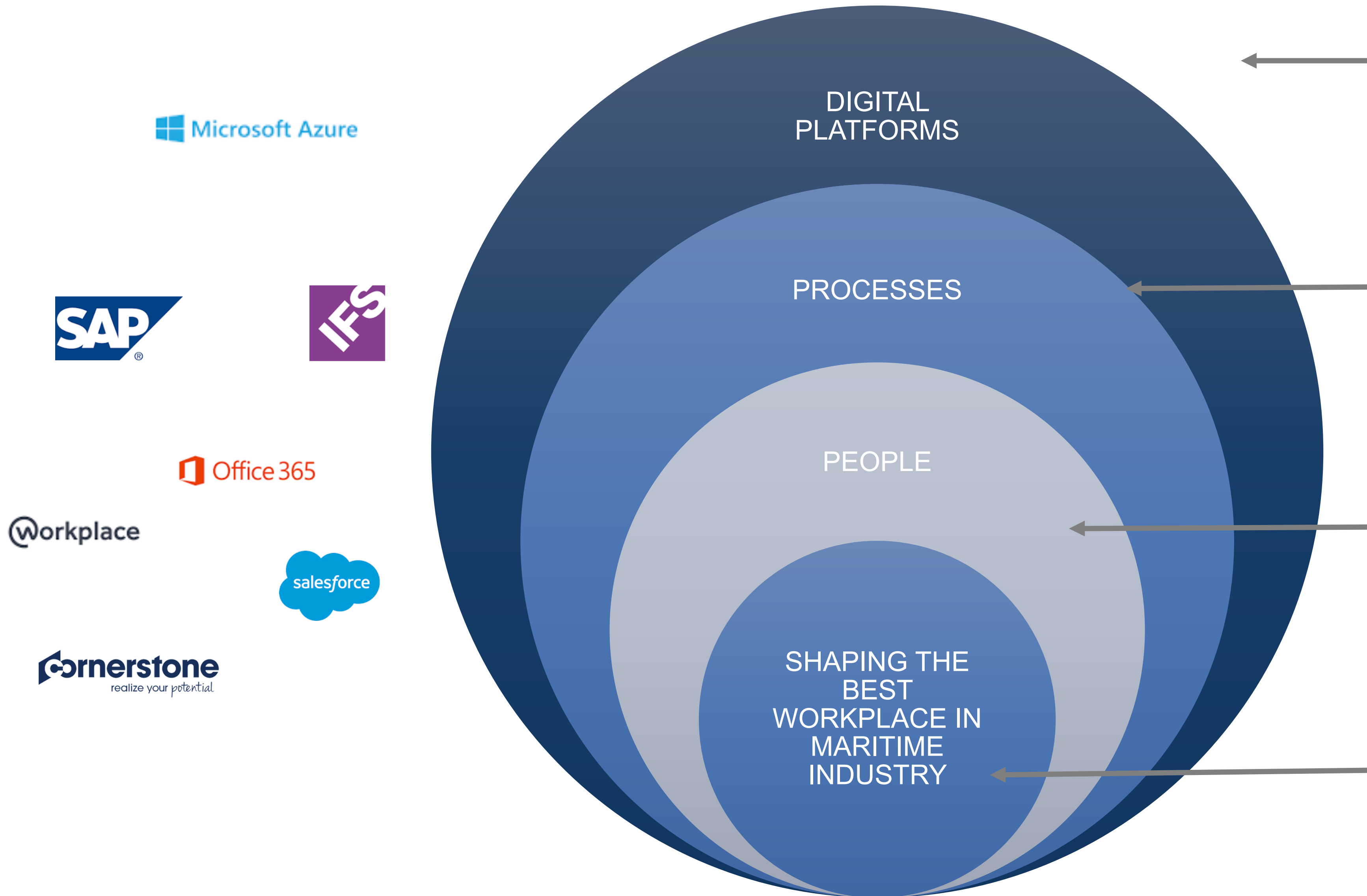- MAKE PRODUCTS WITH **NO/LOW CUSTOMER INVOLVEMENT**
- IDEA TO PRODUCT: **1-2 YEARS**
- **HIGH** INVESTMENT
- DECISIONS: **LOW FREQUENCY**

- MAKE PRODUCTS **WITH CUSTOMERS & PARTNERS**
- IDEA TO PRODUCT: **WEEKS**
- **LOW** INITIAL INVESTMENTS
- **LOW** RISK
- DECISIONS: **HIGH FREQUENCY**

Source: Crisp Consuting

SHAPING THE BEST WORKPLACE IN MARITIME INDUSTRY

MISSION

- Choose digital platforms that gives us the best flexibility, openness and speed to execute efficiently on identified business ideas and changing market conditions.

- Constantly adopting and developing processes that are creating an agile and market driven organisation.
- Objective and Key Result (OKR) methodology to improve performance and employee motivation.
- Empower people to at any time improve or change workflows that people hate

- Everyone have access to a digital personal assistant and a personalized workplace on
- Choose communication and collaboration platforms that enable us to reach everyone everywhere and give everyone a voice.
- Foster an organization that constantly develop new and more effective ways to communicate .
- Attract & retain the best talent by giving them autonomy and end-to end responsibility.
- Develop people and challenge them to create agile, smart and innovative ways to disrupt ourselves.

- Become a thought leader in creating and developing the most admired and innovative workplace in the maritime industry

50% of the workforce will be millennials in three years

Source: PwC

PwC

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

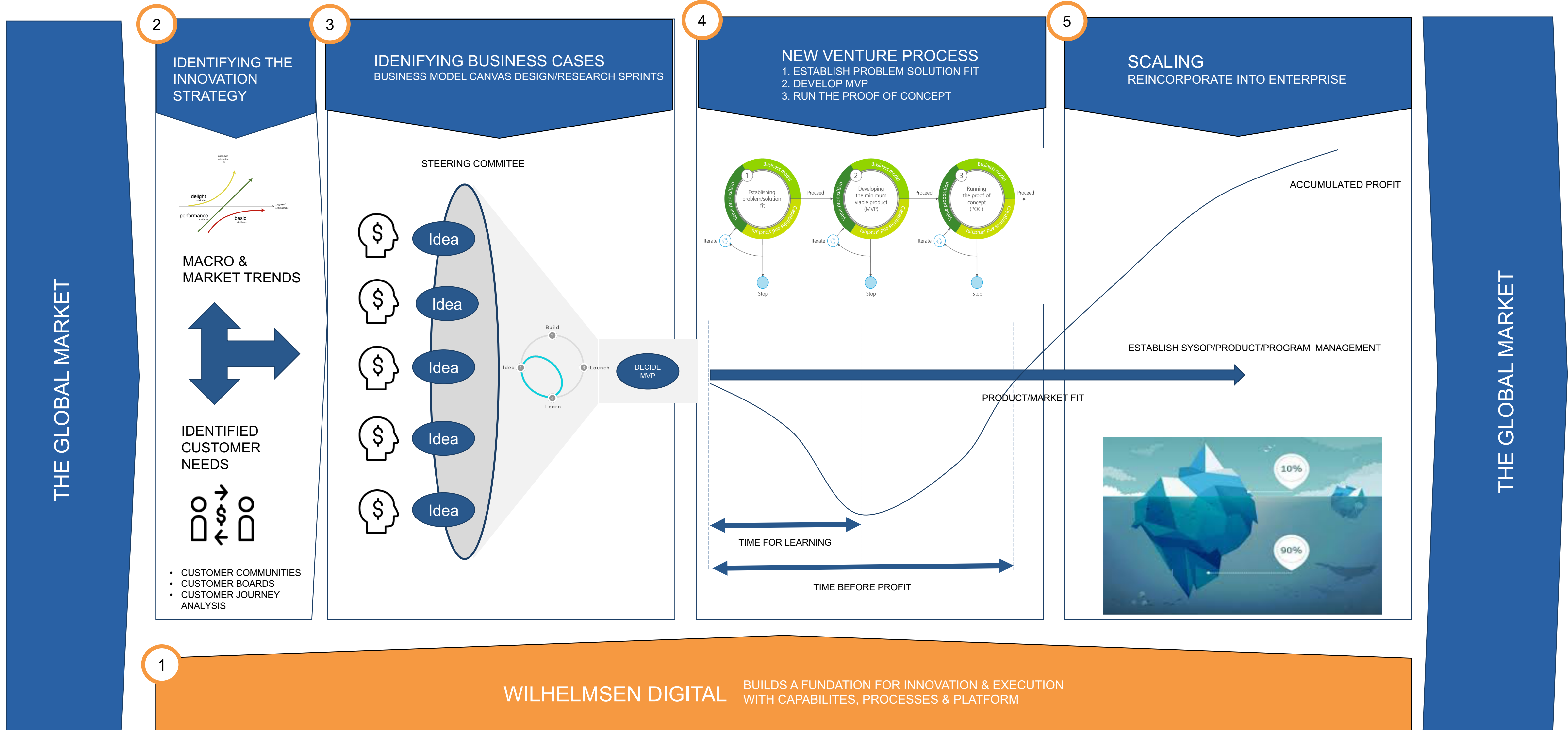**Architecture need to be based on cross industry open standards**

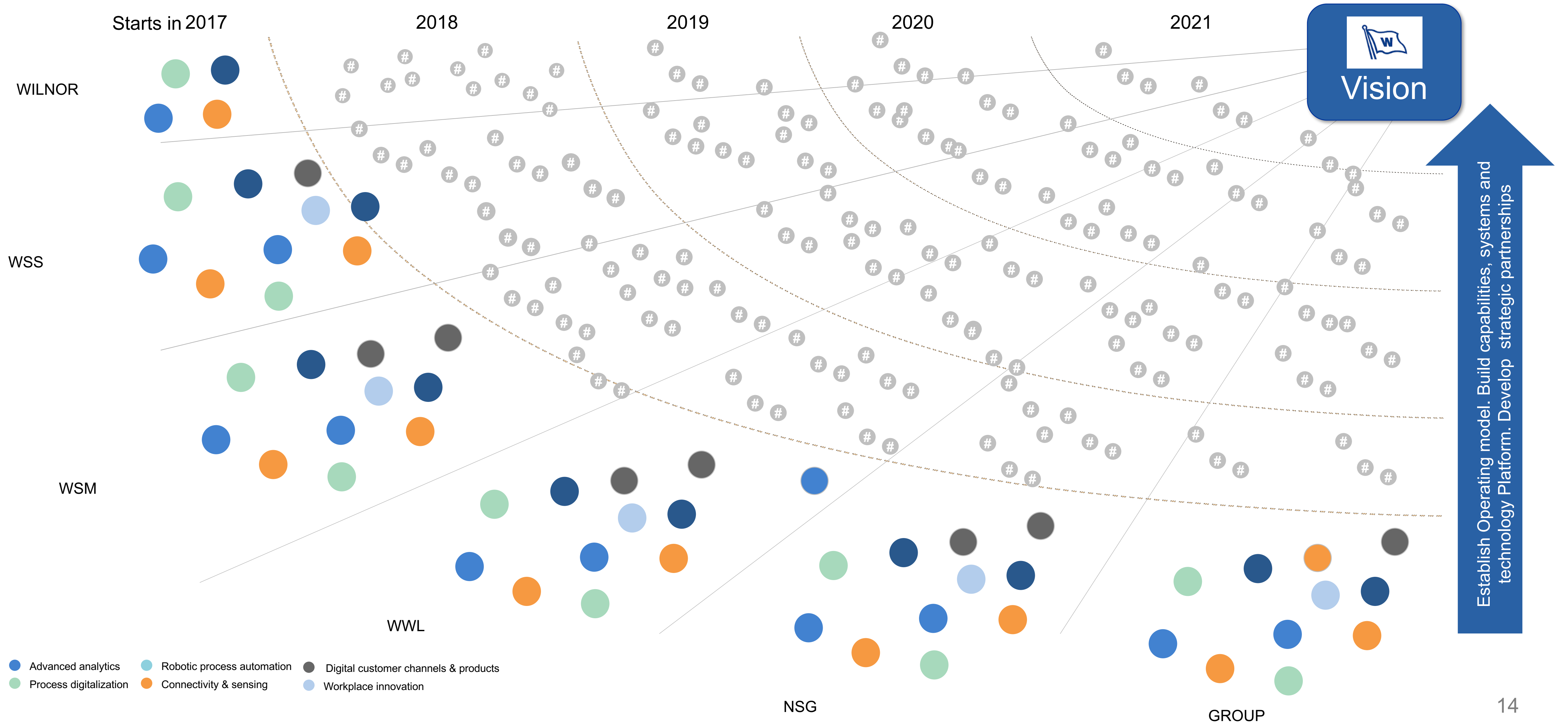| Technology platform | Shared application | Propritary Wilhelmsen application |

WILHELMSEN INNOVATION PROCESS

2 IDENTIFYING THE INNOVATION STRATEGY

3 IDENIFYING BUSINESS CASES
BUSINESS MODEL CANVAS DESIGN/RESEARCH SPRINTS

4 NEW VENTURE PROCESS
1. ESTABLISH PROBLEM SOLUTION FIT
2. DEVELOP MVP
3. RUN THE PROOF OF CONCEPT

5 SCALING
REINCORPORATE INTO ENTERPRISE

THE GLOBAL MARKET

MACRO & MARKET TRENDS

IDENTIFIED CUSTOMER NEEDS

- CUSTOMER COMMUNITIES
- CUSTOMER BOARDS
- CUSTOMER JOURNEY ANALYSIS

STEERING COMMITEE

Idea
Idea
Idea
Idea
Idea

Build

Idea   Launch

Learn

DECIDE MVP

1 Establishing problem/solution fit — Proceed
Business model

2 Developing the minimum viable product (MVP) — Proceed
Business model

3 Running the proof of concept (POC) — Proceed
Business model

Iterate → Stop
Iterate → Stop
Iterate → Stop

ACCUMULATED PROFIT

ESTABLISH SYSOP/PRODUCT/PROGRAM MANAGEMENT

PRODUCT/MARKET FIT

TIME FOR LEARNING

TIME BEFORE PROFIT

10%

90%

THE GLOBAL MARKET

1 WILHELMSEN DIGITAL   BUILDS A FUNDATION FOR INNOVATION & EXECUTION WITH CAPABILITES, PROCESSES & PLATFORM

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.**

Starts in 2017   2018   2019   2020   2021

WILNOR

WSS

WSM

WWL

NSG

GROUP

Vision

Establish Operating model. Build capabilities, systems and technology Platform. Develop strategic partnerships

- Advanced analytics
- Process digitalization
- Robotic process automation
- Connectivity & sensing
- Digital customer channels & products
- Workplace innovation

14

Software Architecture in a digital business
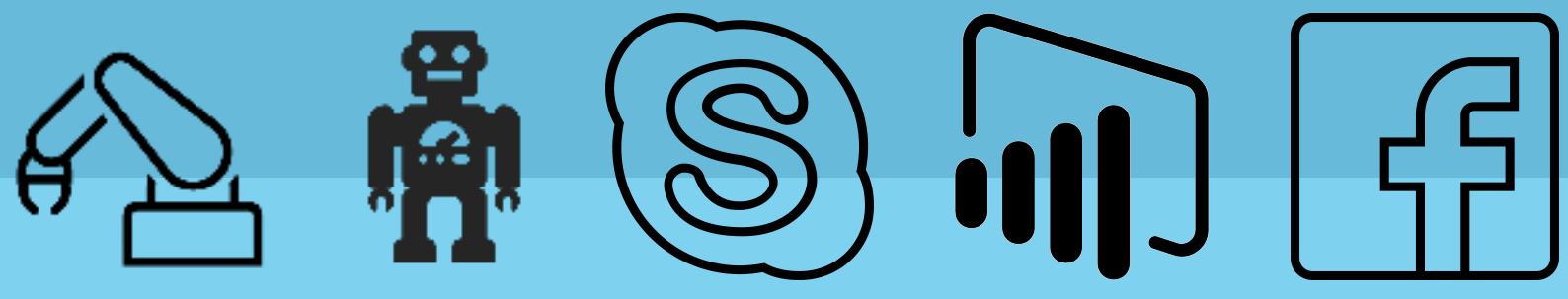
Interaction layer

A B C D E F G H I J K L M N O P Q R
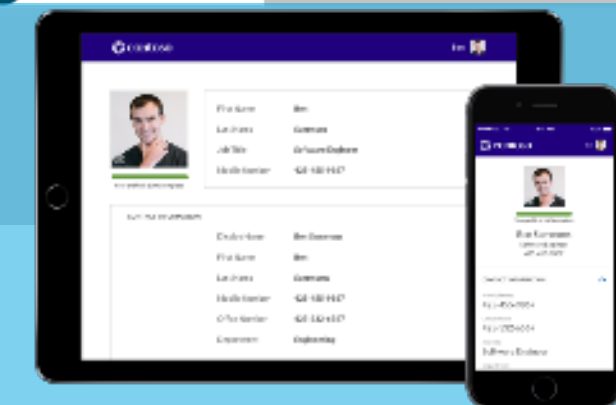
Wilhelmsen Digital Solutions Platform

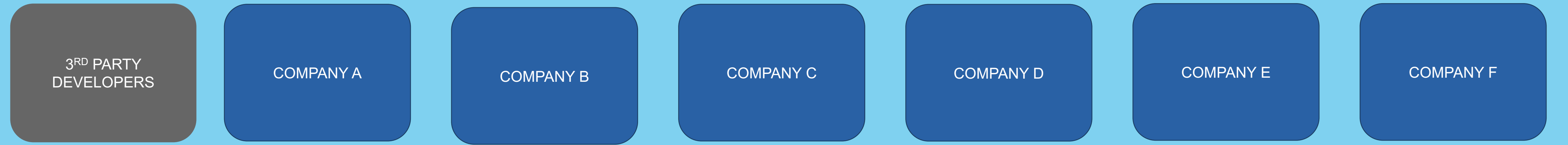⟷ Industry platforms (Verasity, Kogni.ai)

Cloud platforms (Azure, Google, Amazon)

INDUSTRY DOMAIN KNOWLEGDE & EXPERIENCE. LEGACY SYSTEMS

| 3RD PARTY DEVELOPERS | COMPANY A | COMPANY B | COMPANY C | COMPANY D | COMPANY E | COMPANY F |

Wilhelmsen Smart Boilerwater

Maritime Innovation Lab

Maritime Innovation Lab is a key strategic tool to drive more innovation with higher speed and quicker ROI.

OPEN & RAPID INNOVATION

- More open to innovation from:
    - Start-ups
    - Entrepreneurs
    - Vendors
    - Internally in the group.
- Grow an extended team that supports us shape the maritime industry

ACCESS TO NEW TALENT

- Unique and effective access to new talent and innovative companies.
- More effective recruitment from academia and R&D institutions.

EFFICIENT TO CREATE NEW BUSINESSES

- Make it more efficient to create new revenue and find new business areas.
- Challenge us to be more innovative within the group.

FACITILATE AND GROW STRATEGIC PARTNERSHIPS

- Facilitate and grow strategic partnerships with members of the Maritime Innovation Lab.
- Participate and invest in incubators and accelerators to grow deal flow for Wilhelmsen Venture Capital.
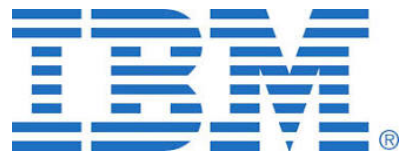
What is Wilhelmsen offering

- Office space with access to Wilhelmsen HQ

- Direct access to key people and industry experts in the Wilhelmsen Group and partners

- Wilhelmsen serve 50% of the global maritime market. We can either be a customer or a go-to market partner

- Access to capital either directly from Wilhelmsen Venture or trough VC partners we work with

Access to a global maritime network
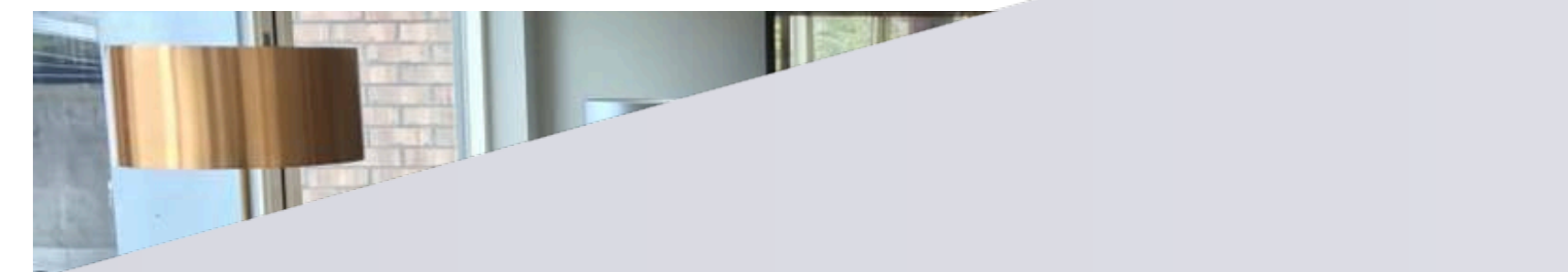
What will happen in the Lab?

- Hackathons
- Demo days
- Industry events
- Collaboration with academic institutions that are focusing on innovation in the maritime industry.
    - NTNU, HSN, BI and other academic institutions
- Partner activities with other start-up and innovation labs