

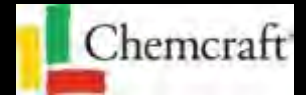
AkzoNobel

Industry 4.0

Mo Chowdhury
Innovation Incubator

Trusted global and local brands

Our world class portfolio of established brands is trusted by customers around the globe.



A global paints and coatings company

AkzoNobel

2017 key figures

€9.6 bn

revenue

€1.2 bn

EBITDA

€0.9 bn

EBIT

9.4%

ROS

13.9%

ROI

35,700

employees

Business activities

- ↗ Decorative Paints
- ↗ Powder Coatings
- ↗ Marine and Protective Coatings
- ↗ Automotive and Specialty Coatings
- ↗ Industrial Coatings

North America
12%

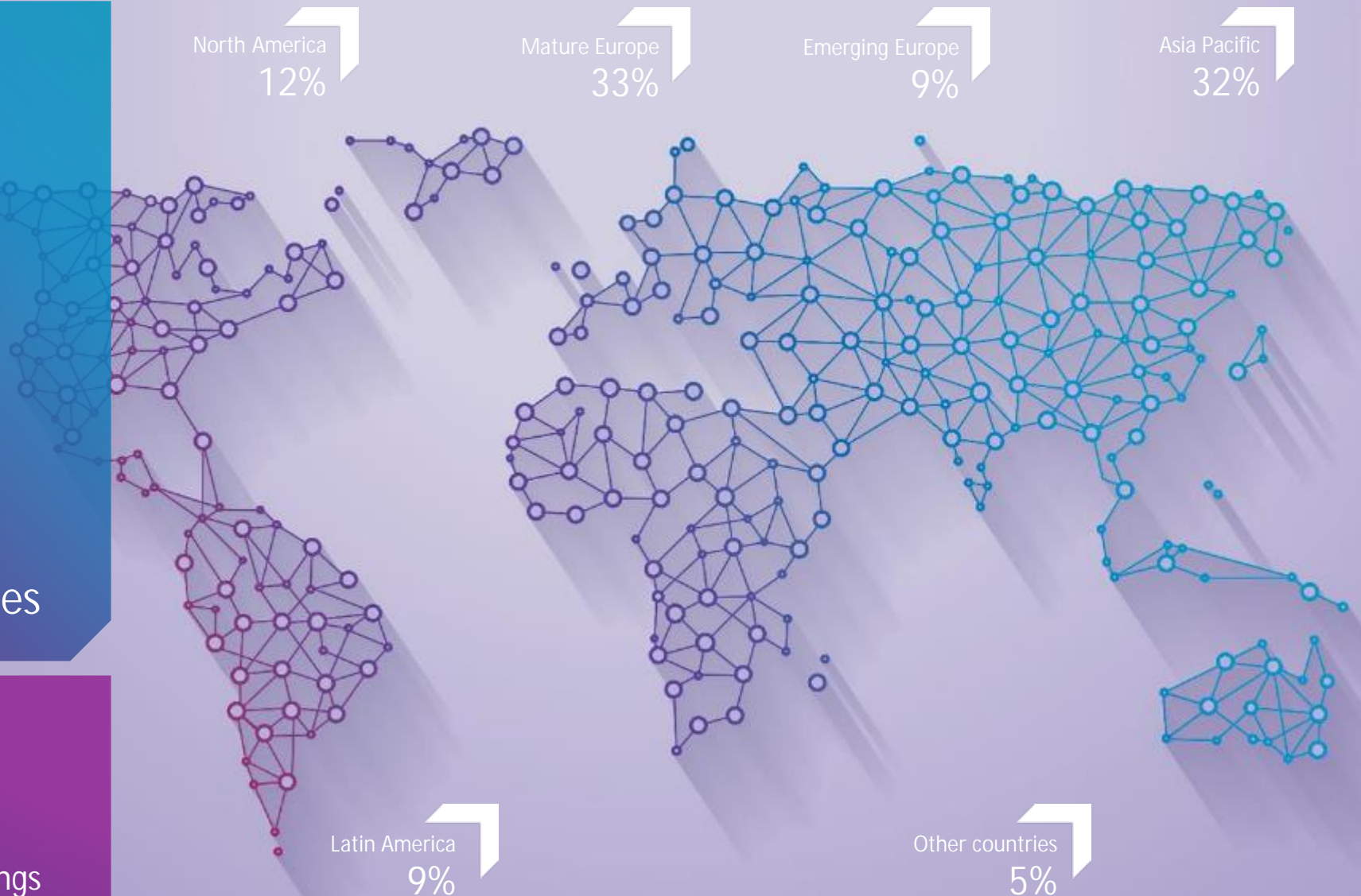
Mature Europe
33%

Emerging Europe
9%

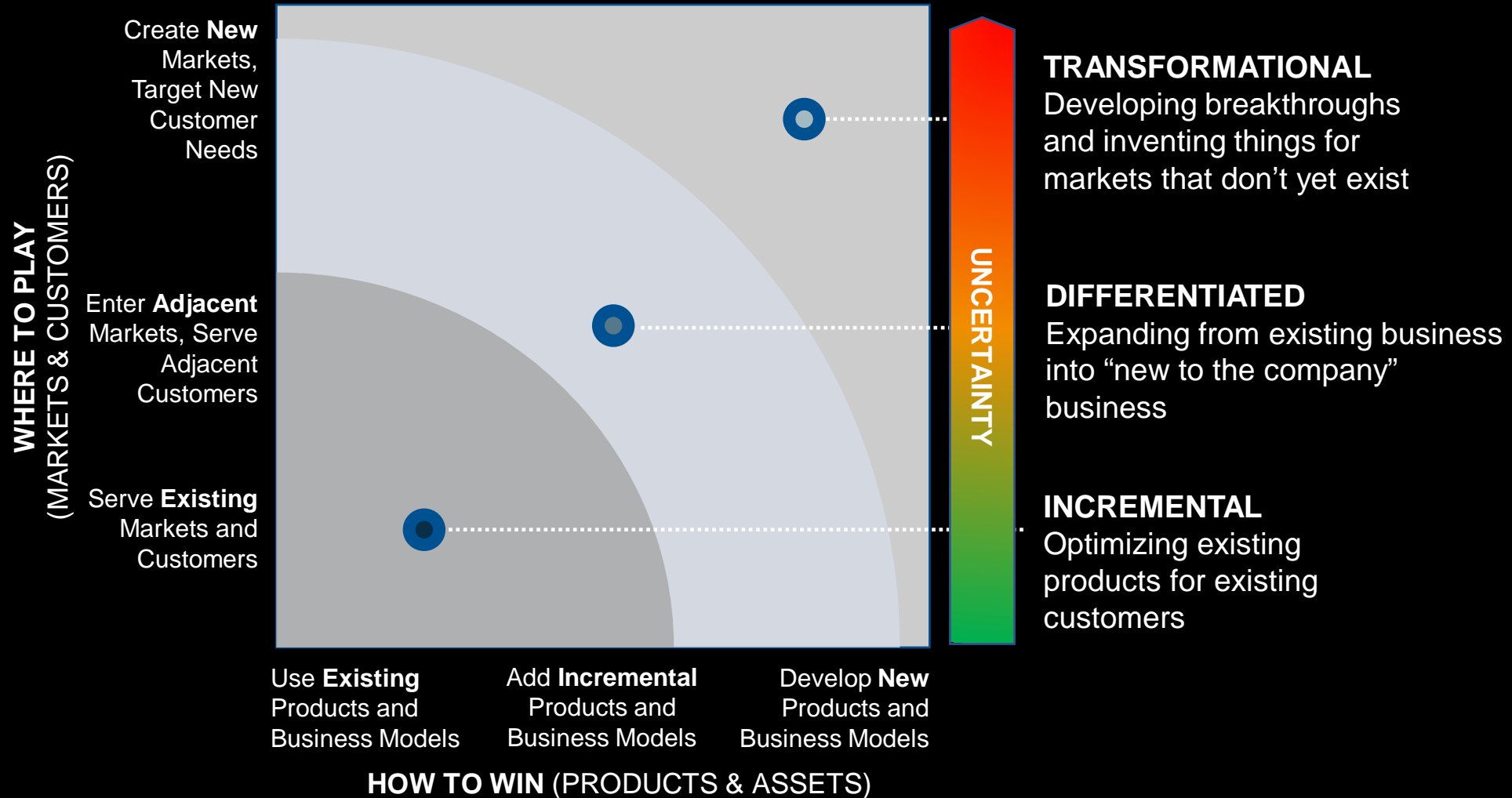
Asia Pacific
32%

Latin America
9%

Other countries
5%

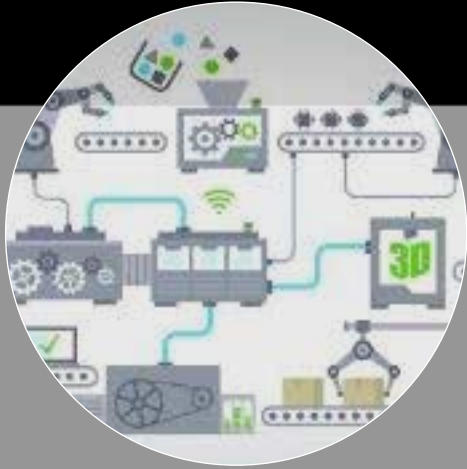


Innovation can take place on three distinct levels



People have been
using paint for
thousands of years

Petroleum + Natural gas → Intermediate materials → Daily products



Digital at the core

Value from efficiencies

Customer and AkzoNobel
operations



Customer experience

Value is coupled to volume

Enhanced marketing and
aftersales

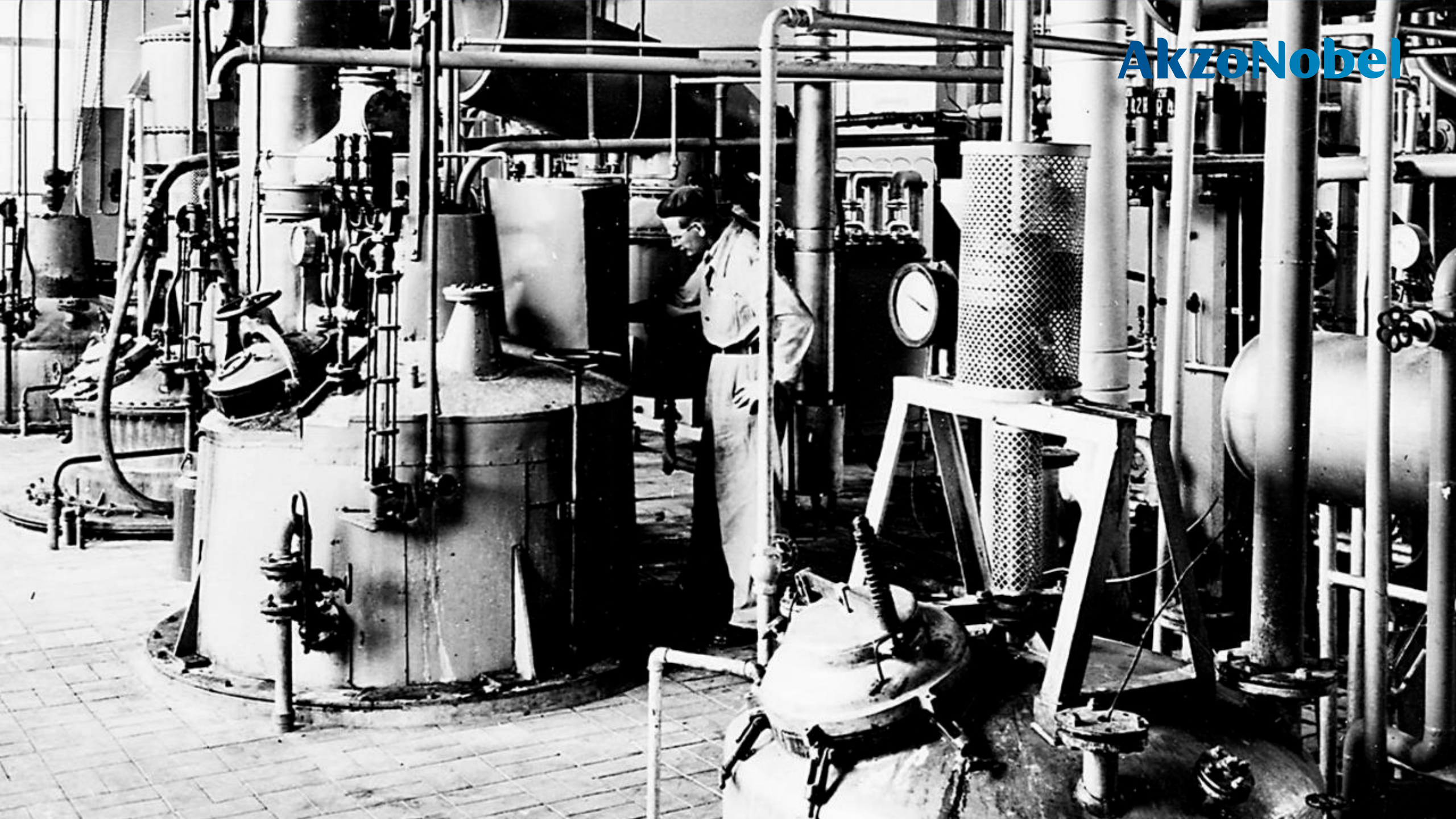


New business

Value is decoupled from
volume

New business models

AkzoNobel



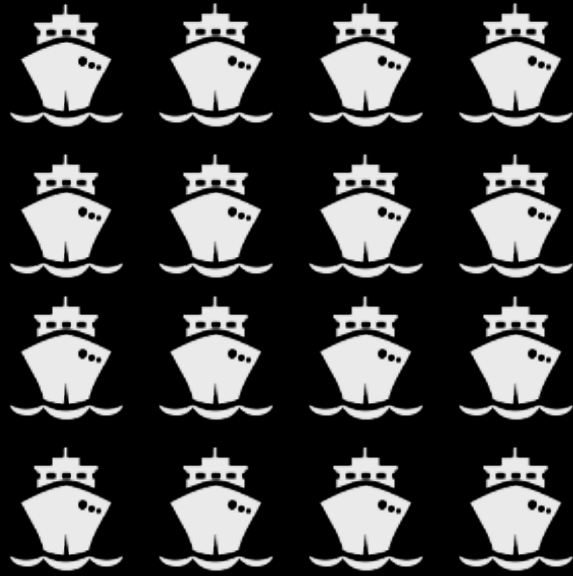


visualizer

Dulux
let's colour it



Digital Business Models



1970

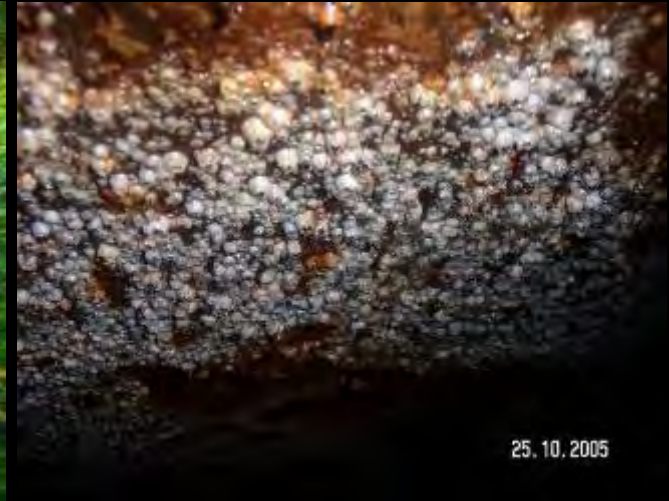
Digital Business Models



2015



The internet of things, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.



25.10.2005



UV-C LEDs against biofouling...

After 8 months in Dutch waters (Zeeland) on a recreational vessel show that the areas protected with UV are free from all fouling.



Side profile

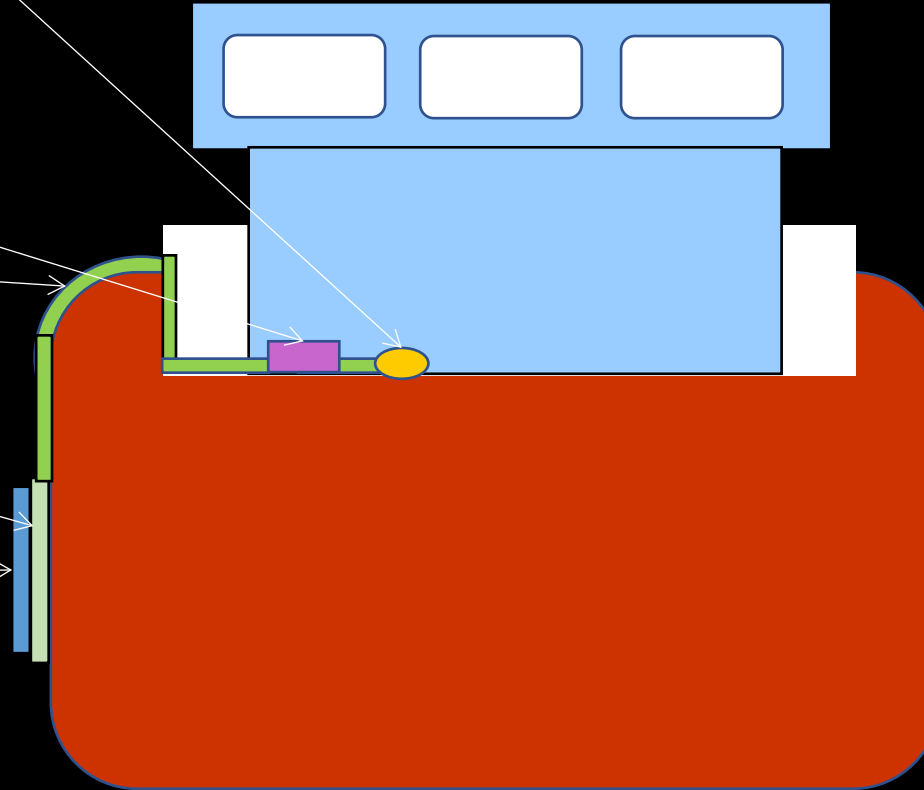
Connection to ship power source

Controller/data logger

Power cable

Power pad

Test tiles



Cable could enter ship structure via a suitable access point

The Impact

The cost of Invasive Aquatic Species

Apart from the cost (UK estimate is 45 million per annum), IAS can cause a number of problems affecting port operations such as:



Restrict Navigation



Clog waterways



Affect water quality



Damage riverbanks and structures



Compete with and displace populations of native species

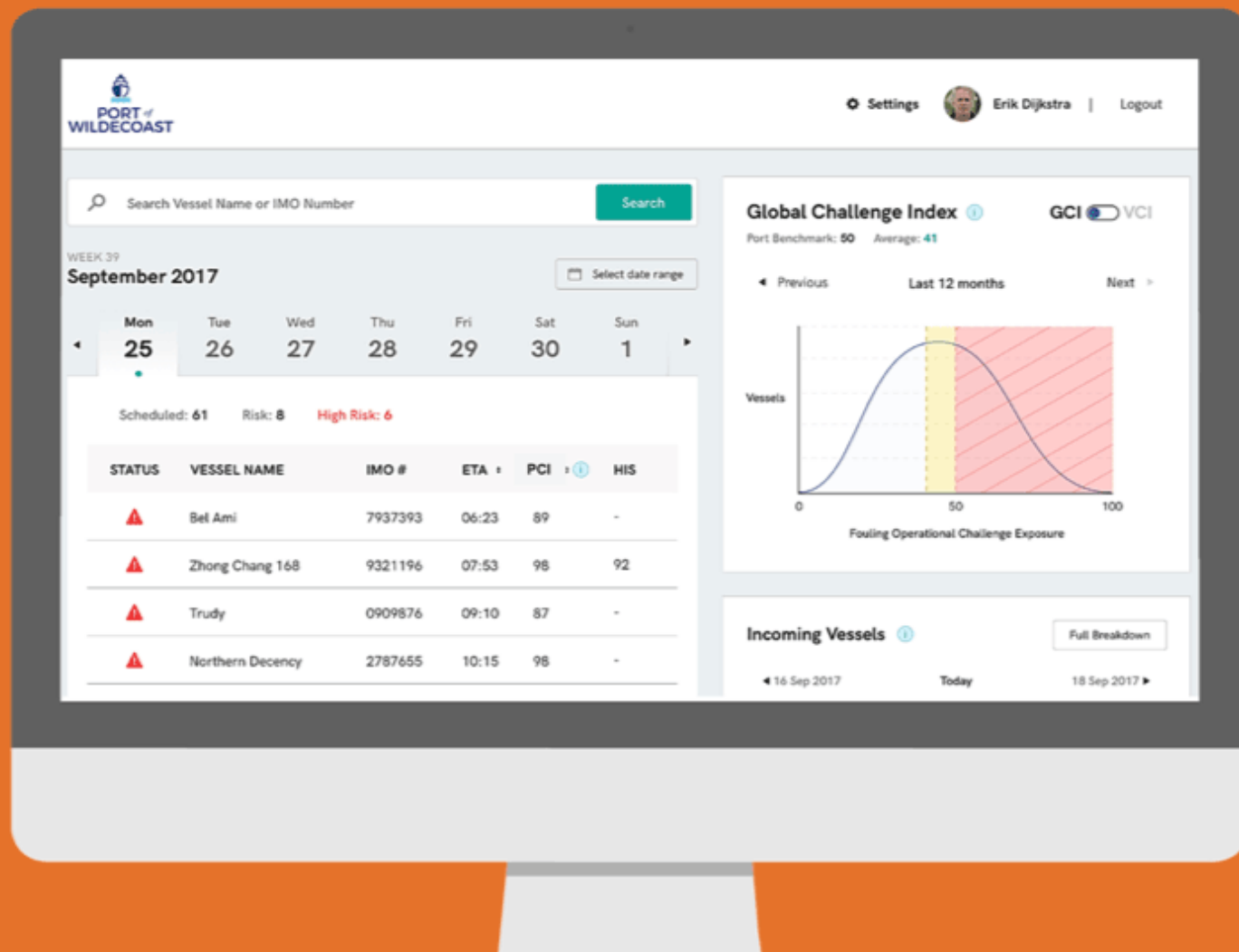


Spread disease



Clog water intakes

- Environmental data
- Real time vessel movements
- Level of fouling
- Fouling prevention
- Cleaning schedule
- Last dock entry





Summary

We are at the start of our Digital at Core journey

We are well underway implementing new business models

Check out our open innovation challenge “Let’s Paint the Future”

Questions?