



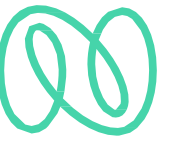
#ThinkingBreakthroughs

# Innovation Roadshow

powered by Google Cloud  
and Nagarro

Google Cloud

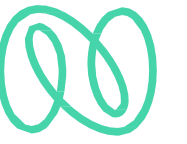




# Data Driven Enterprise

“Even a blind squirrel finds a nut once in a while.”





# Short Questionnaire

Your top 10 reasons becoming a data driven enterprise



Scan the code with your mobile and you will be redirected to mentimeter



# Results

Top 10 reasons, compared to the EY survey



# Results

## Top 10 reasons of this Group



# State of Play

on data of a recent EY survey

81%

of respondents agreed that data should be at the heart of all decision-making

50%

of respondents are concerned about the quality and consistency of their data

69%

of them continue to manage their big data projects in-house

# State of Play

on data of a recent EY survey

41%

of respondents recognized the importance of, cross-functional working' for delivering successfull big data projects

31%

of companies have significantly restructured their operations to incorporate big data

23%

of organisations have implemented an organization-wide data strategy



# State of Play

on data of a recent EY survey

# 5-6%

Companies adopting  
Data Driven Decision making (DDD) have  
an output and productivity that is 5-6%  
higher than what would  
be expected given their other investments and  
information technology usage



# Challenges

In today's VUCA world



Customer digital expectations, disruptive Market trends



IoT everywhere, new Products



Margin pressures and the need for new revenue, expensive sourcing



Supply chain disruption due to the pandemic, uncertain geopolitical times, resource shortage



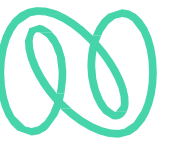
Worker shortages and the digital talent gap



COVID pandemic, climate and financial crisis, war in Ukraine and sustainability, Taiwan uncertainty, cyber attacks

# Maturity Model





# Short Questionnaire

What do you think is the maturity level of your organisation?



Scan the code with your mobile and you will be redirected to mentimeter



# Results

which maturity level applies to your enterprise



# Blockers

What is possibly holding you back



**People**



**Processes**



**Technology**

# People (learn)

Needed skills are self-taught and best-effort, with dependence on a 3rd party.



A culture of continuous learning, from peer to peer, while using 3rd parties for staff augmentation only. building up a center of excellence, no blaming culture. Build up roles like RPA ambassador or data ambassador throughout your organisation to support the change



# Processes (lead)

Change is slow and risky, decisions are often based on poor data and therefore error prone.



Change is frequent and lower risk, decisions are made using all needed information which is easily accessible throughout the whole enterprise, so they become more profound and less risky.



# Technology (scale)

Relying on legacy services and software.  
Spending most time on maintenance and configuration.



Utilizing ready to use, maintenance free, managed services. Free up time for generating Business value. Focusing more on the idea and less on the tooling.





# Data Ops Mindset (innovate)

Data is often strictly bounded on departments and roles.  
Management and decision making goes by tribal knowledge and gut feeling slow to no innovation



Think 10x, drive innovation and no blaming culture, enable people to be prepared for the opportunity, give them the tools and data to explore and find insights driving new ideas.



# Destination

Your target picture

People



Technology

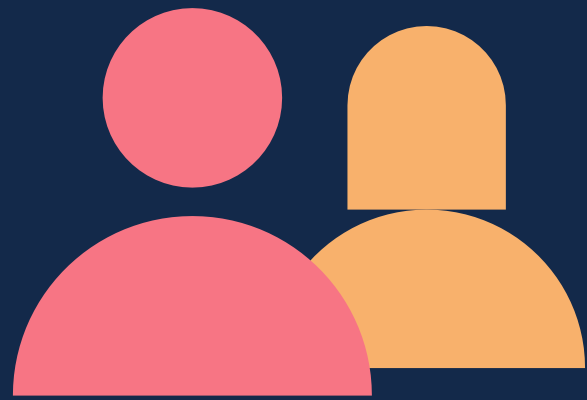
Quality  
DataOps  
mindset

Processes



# How to become data driven

four major focus areas longterm...



## Culture

“Culture eats strategy for breakfast”. Think about how your organizational culture needs to change to facilitate this shift.



## Strategy

The data strategy highlights how data supports your overall business objectives.



## Toolset

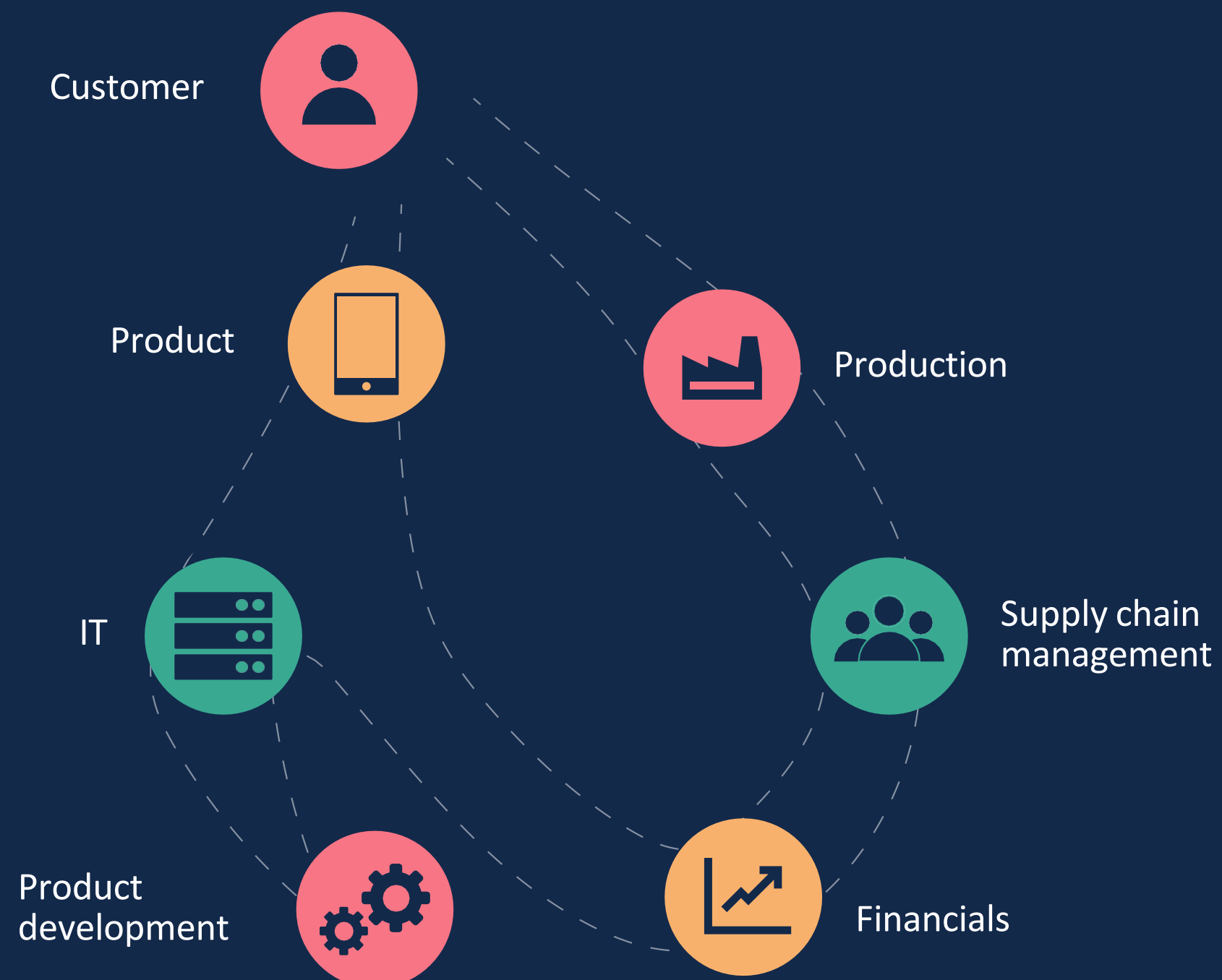
Before implementing think about how they will support your overall business goals.



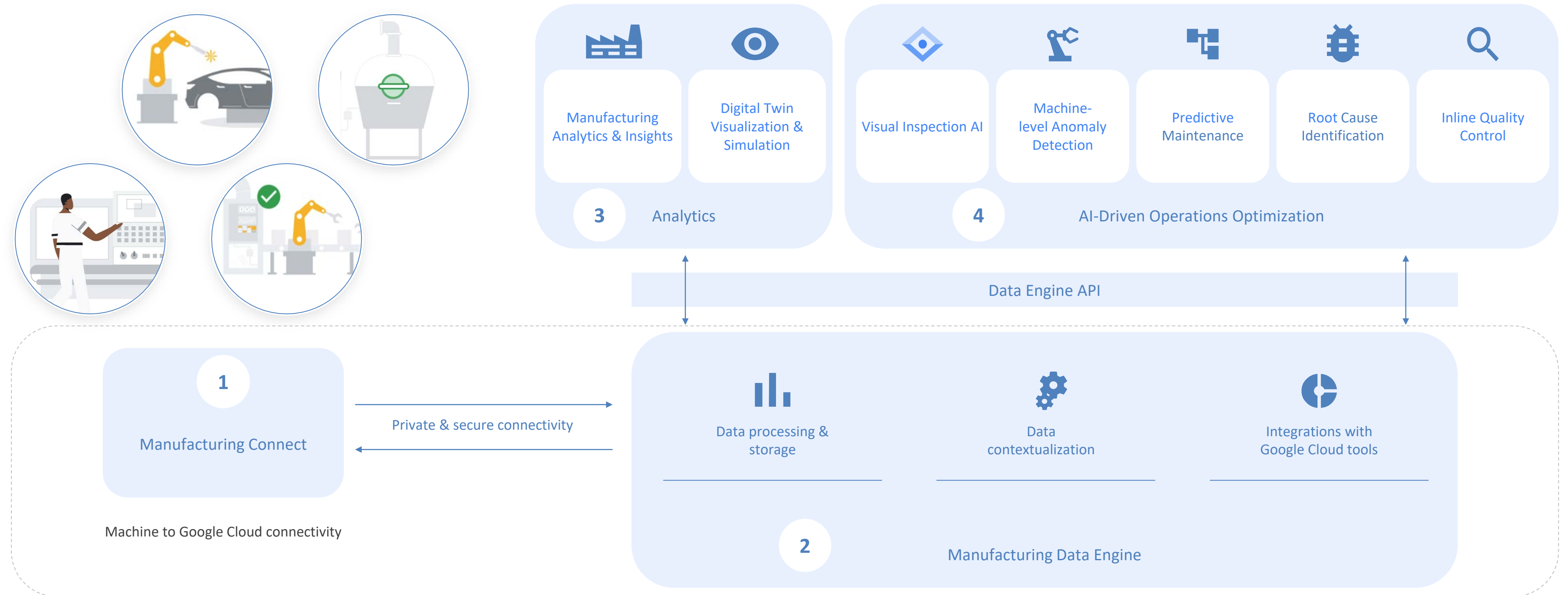
## Data Literacy

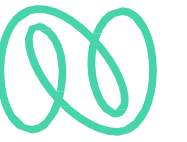
Only one in five employees believe their employer is preparing them for a more data-oriented workplace.

# What does this mean for your data landscape?



# Manufacturing Landscape Example:





# Visual inspection AI

Top-ranked Computer Vision and Machine Learning capabilities of Google to detect tiniest defects at an unprecedented accuracy and scale.

## Manufacturing

- Surface defect: scratch, dent, crack, split, paint failure, debris
- Process conformance: weld size and shape, adhesive presence

## Assembly

- Conformance: Correct part, position, alignment and sequence
- Defect: Missing part, incorrect specification, unaligned, debris



# Predictive maintenance solution and service offer

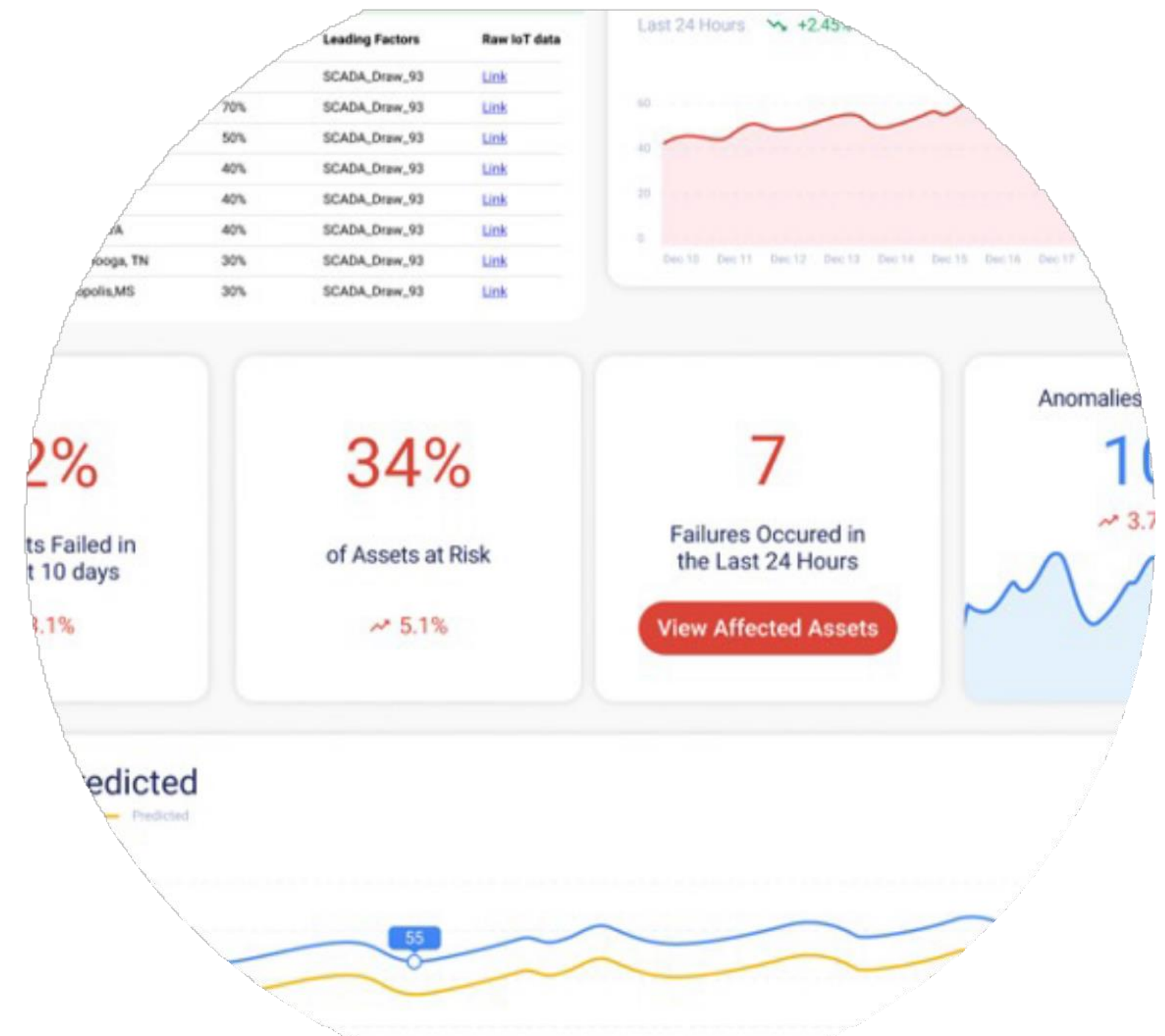
With Google Cloud's pre-built predictive maintenance ML models you can deploy a solution in weeks without compromising on prediction accuracy.

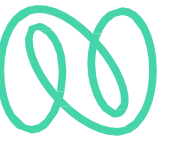
## Continuous improvement

- Refine your models in collaboration with Google Engineers to ensure value is delivered quickly
- Direct integration with Manufacturing Data Engine to tap into live and historic data
- Empower your own data scientists to develop their own pipelines with our pre-built components

## Global Visibility

- Shift from facility-by-facility maintenance strategies to a global view on machine health
- Don't wait for aggregated reports, but obtain real-time visibility in problematic assets across the enterprise





# Inline quality control

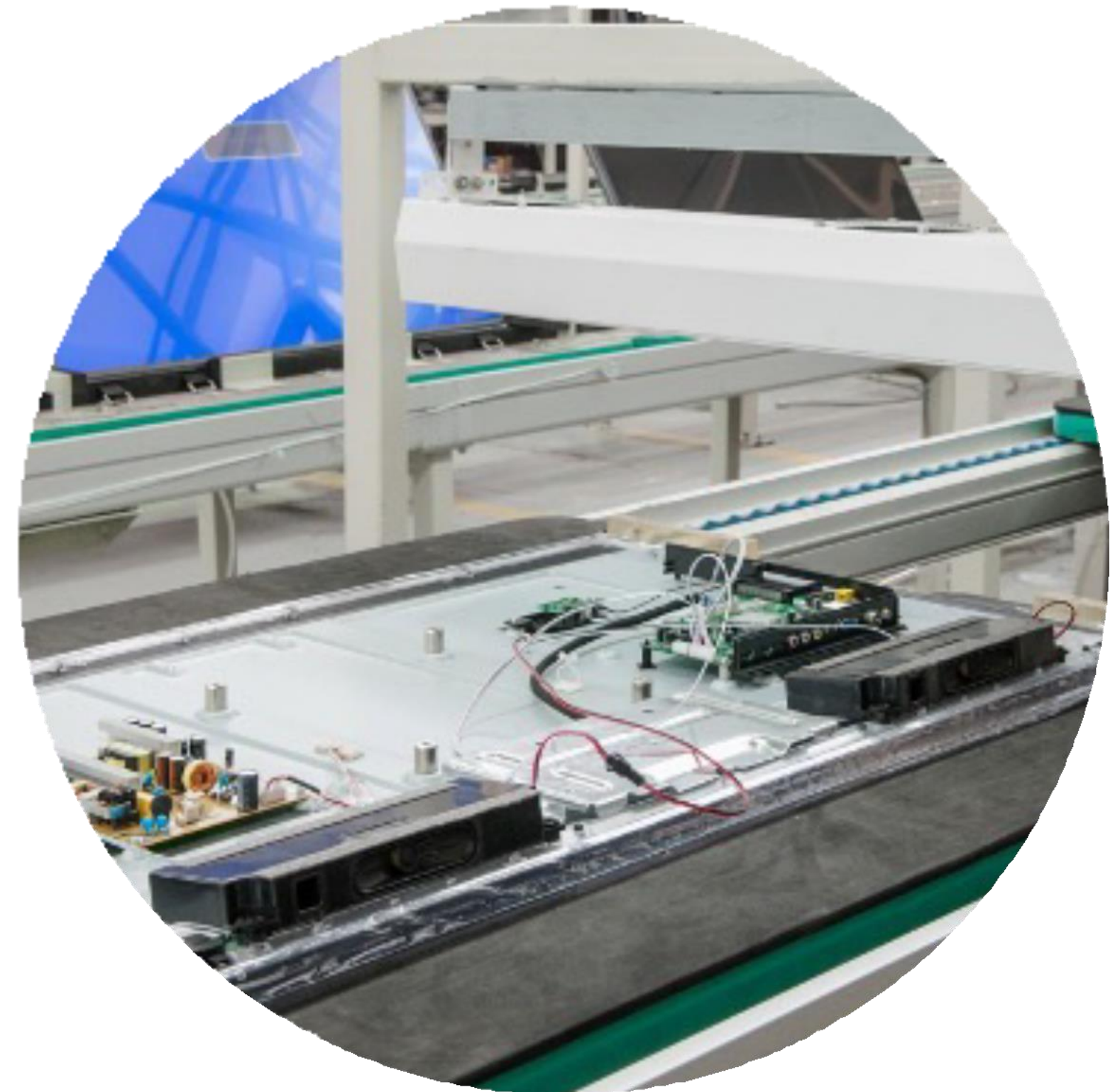
Monitor in-line quality control across your production lines by aggregating sensor and visual data, and simulating parameter changes for optimization:

## Combine inspection visual data with in-line sensor data

- Leverage inspection imaging data, to detect and flag quality issues throughout the production line. Combine it with real-time sensor data to get a holistic view of quality against defined parameters.

## Parameter simulation

- Use your in-line quality parameter data model, and Google Cloud AI optimization tools, to model parameter changes and understand the impact on your product quality.

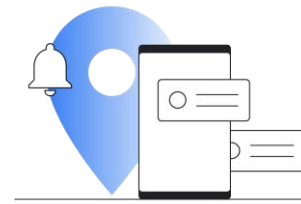




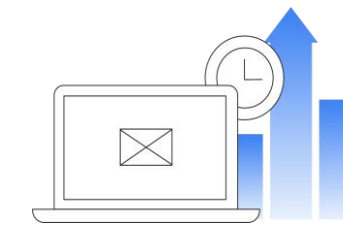
# In Store Location



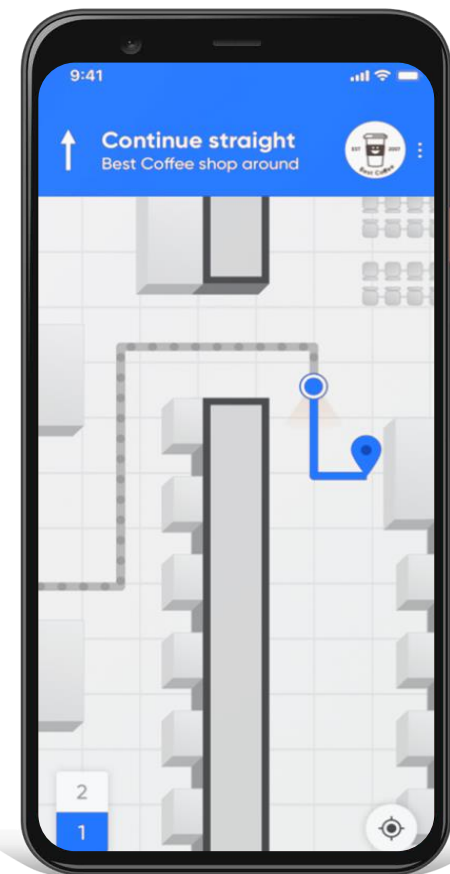
**In-Store Navigation**



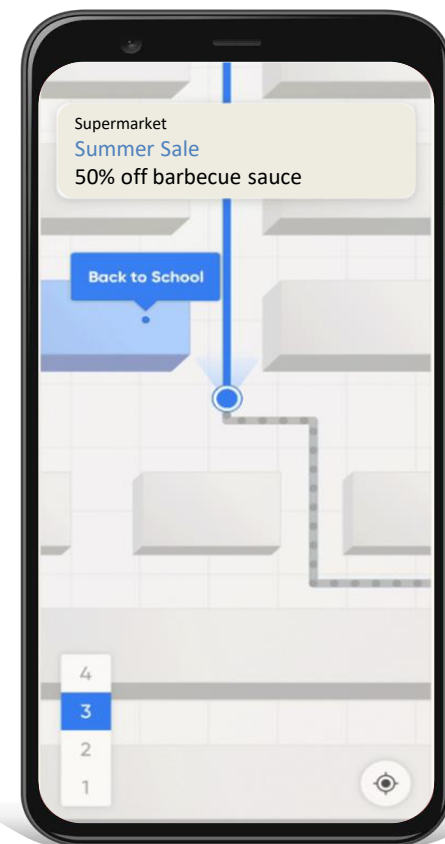
**Location-Based Marketing**



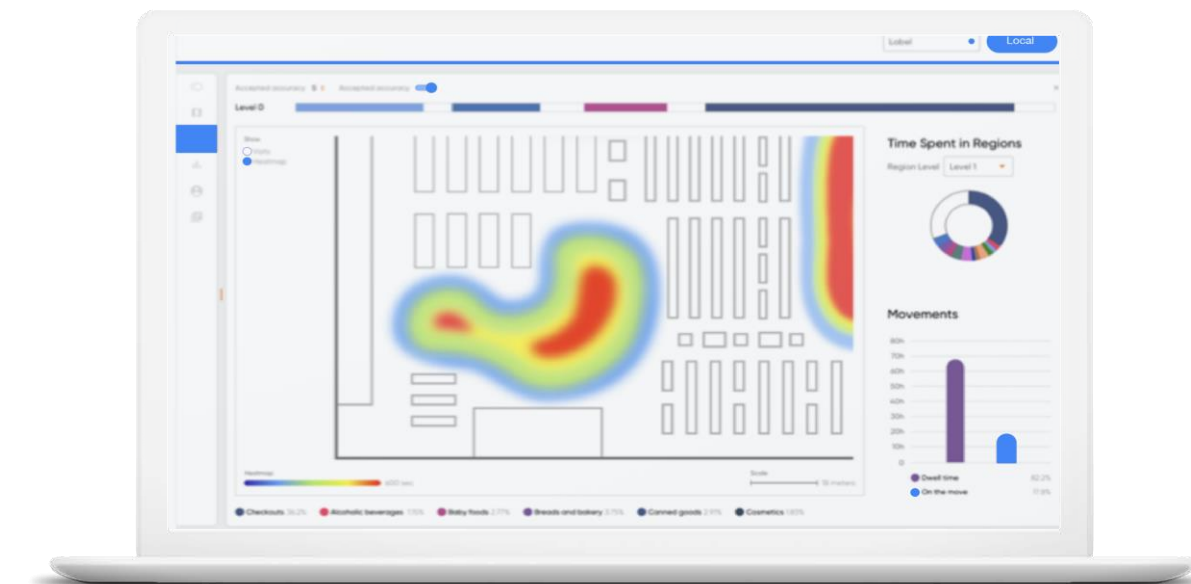
**Monitoring & Analytics**



With real-time positioning and optimal route planning through multiple waypoints

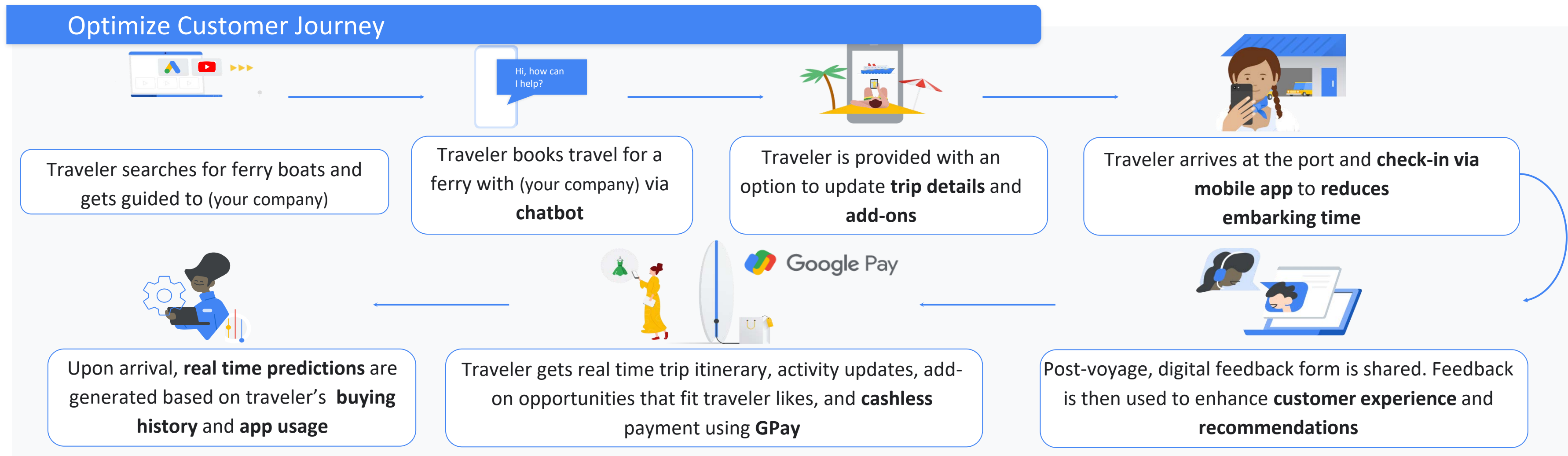


In 1m/3ft resolution, programmed upon entry/exit/linger or consequent action (i.e. digital signage)

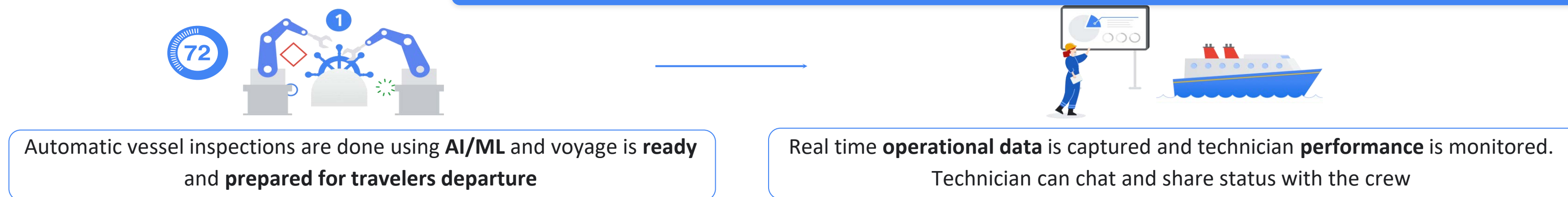


On foot traffic, operational efficiency and layout performance

# Optimize Customer Journey



## Drive intelligence and efficiency to the next level





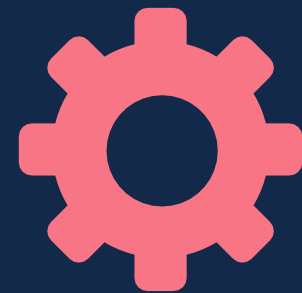
# Next Steps

short term



## 01 Ideate Business Case

(2 weeks) Define intelligent products use case & architecture for MVP



## 02 MVP Development

(2-4 weeks) Configure and deploy solution to Cloud. Connect product, train AI model, and build MVP application.



## 03 Product scale-out

(2-4 months) Scale up to entire product family

# Thank you

Google Cloud | 



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# Innovation Roadshow

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and Nagarro

Google Cloud





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# Innovation Challenge

powered by Google Cloud  
and Nagarro

<https://go.nagarro.com/innovationchallenge>

# IT/ Digitalization @Miba AG





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*Phone:* +43 664 88333621



# Agenda

1



2



Culture



Strategy



Toolset



Data Literacy

3



# Who we are



Founded by Franz Mitterbauer 1927 in Laakirchen, Upper Austria



7.500 colleagues worldwide



Core business: Development and production of components along the energy value chain



~1bn EUR Revenue in 2022/23



Among Austria's leading industrial and technology companies



Sinter



Friction



Coatings



Power Electronics

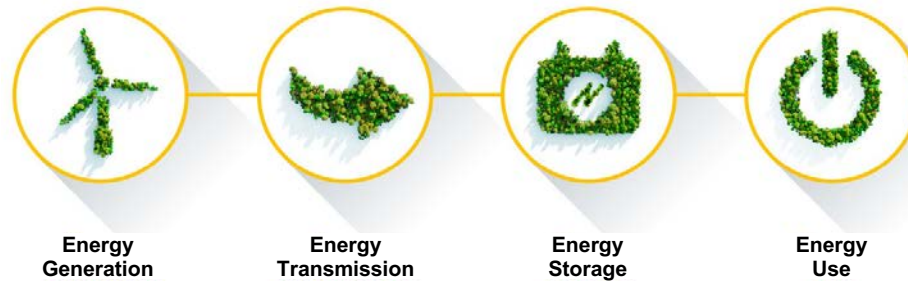


Special Machinery

**OUR VISION:**  
**NO POWER**  
**WITHOUT MIBA**  
**TECHNOLOGY**

Components along the entire value chain

# Our core customer industries



**We want to become the digital industrial leader in niches along the entire energy chain by**



**digitalizing our core processes**

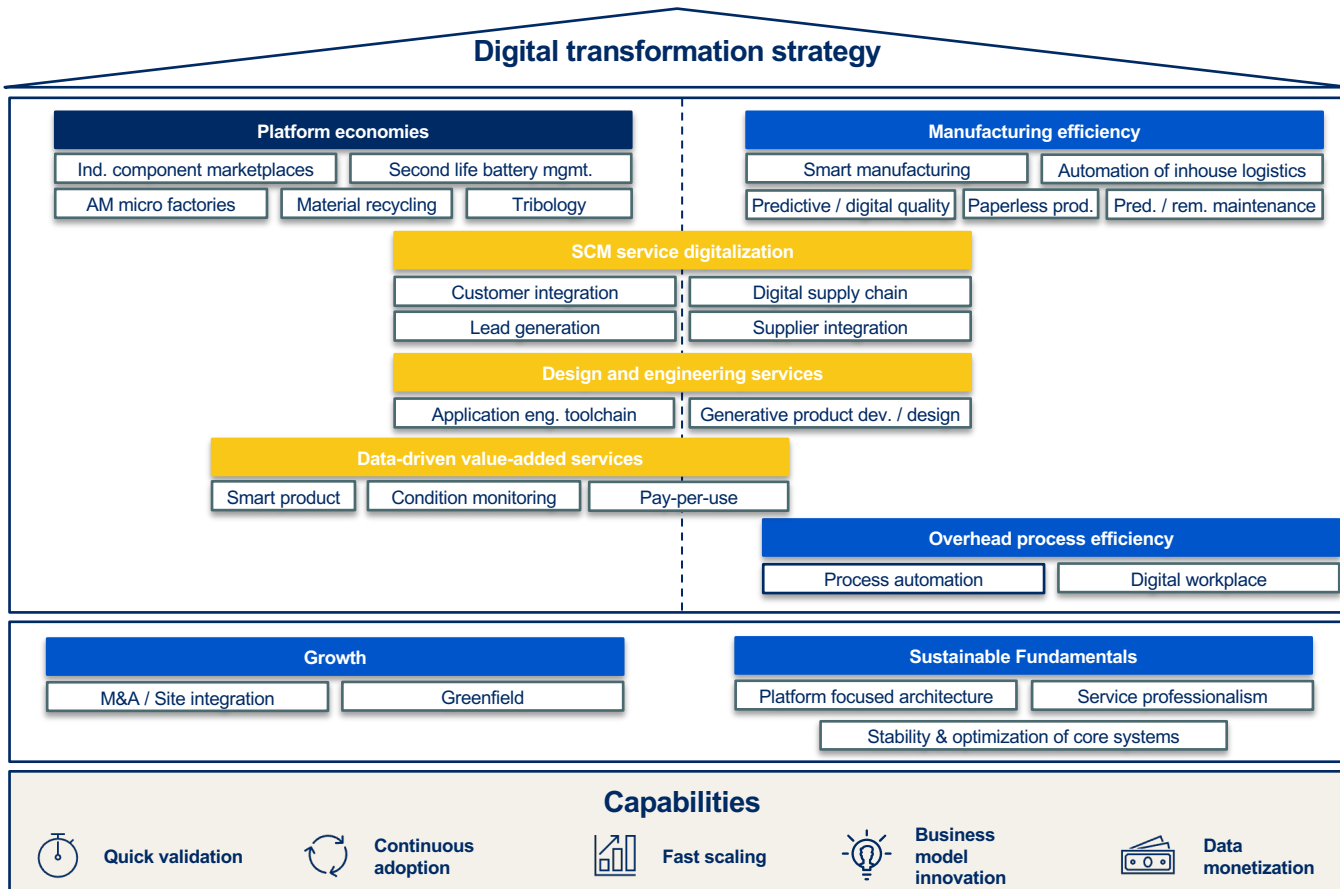


**digitalizing Miba products**

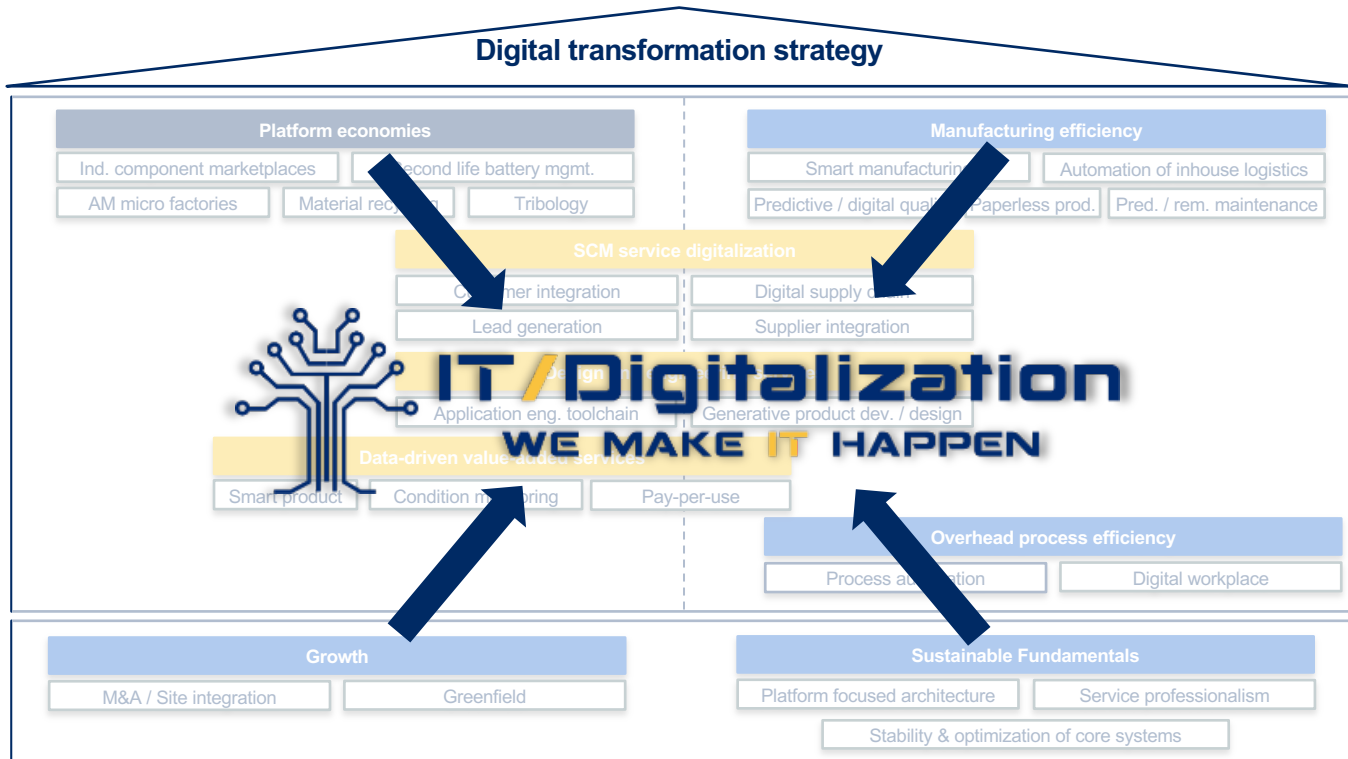


**developing digital business models**

# House of Digital Transformation



# IT/D as the core of our digital transformation





**IT/Digitalization**  
WE MAKE IT HAPPEN

**Our Mission**

**IT/Digitalization is an integral part to Miba's short and long term success.**

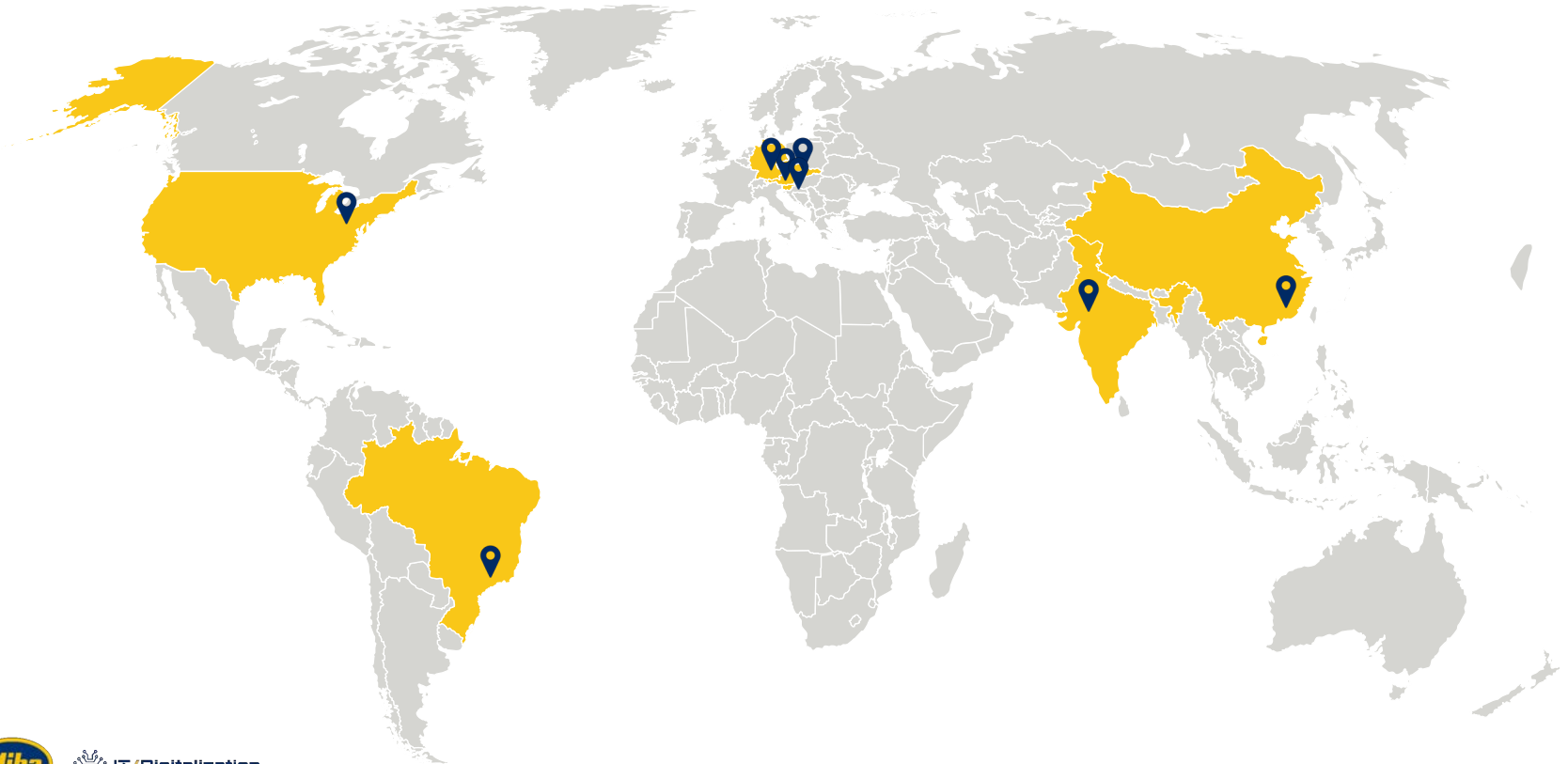
We are a **competitive differentiator** in Miba's Go-to-Market, by

- being committed to our agile mindset and our design criteria:
    - closeness, speed and flexibility
  - being a truly global and diverse network organisation with flat hierarchies and an active feedback culture
  - everybody taking ownership and accountability
- 
- We have unique **skills** uniting industrial manufacturing expertise & digitalization **skills**
  - We identify, validate, pilot and scale new digital technologies for a cleaner planet
  - We are curious, standing for lifelong learning and permanently sparking new ideas for Miba's success

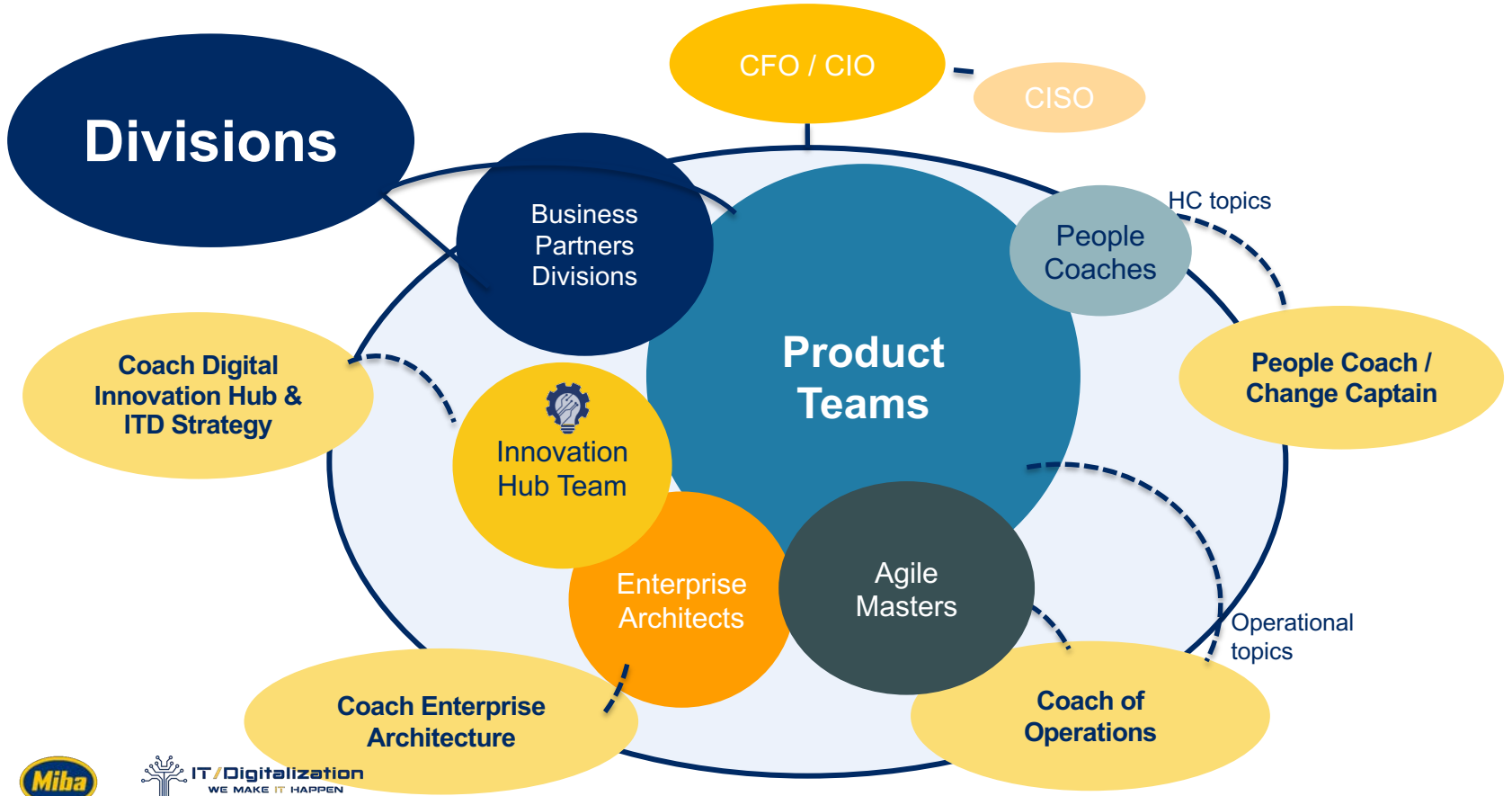


One Team across the globe

# Our global IT/Digitalization Organization



# Our organizational chart



## Our IT/D Products

### Factory



Quality Inspection & ML



EHS & Maintenance & Quality



Frontline Shopfloor Solutions



IIoT



Product Lifecycle Management



Process Automatic Intelligence



Supply Chain Management

### Office



Digital Workplace



Finance & Controlling



Human Capital

### Foundation



Infrastructure Platforms



IT Compliance, Risk and Security



Service & Devices



Data Hub & BI



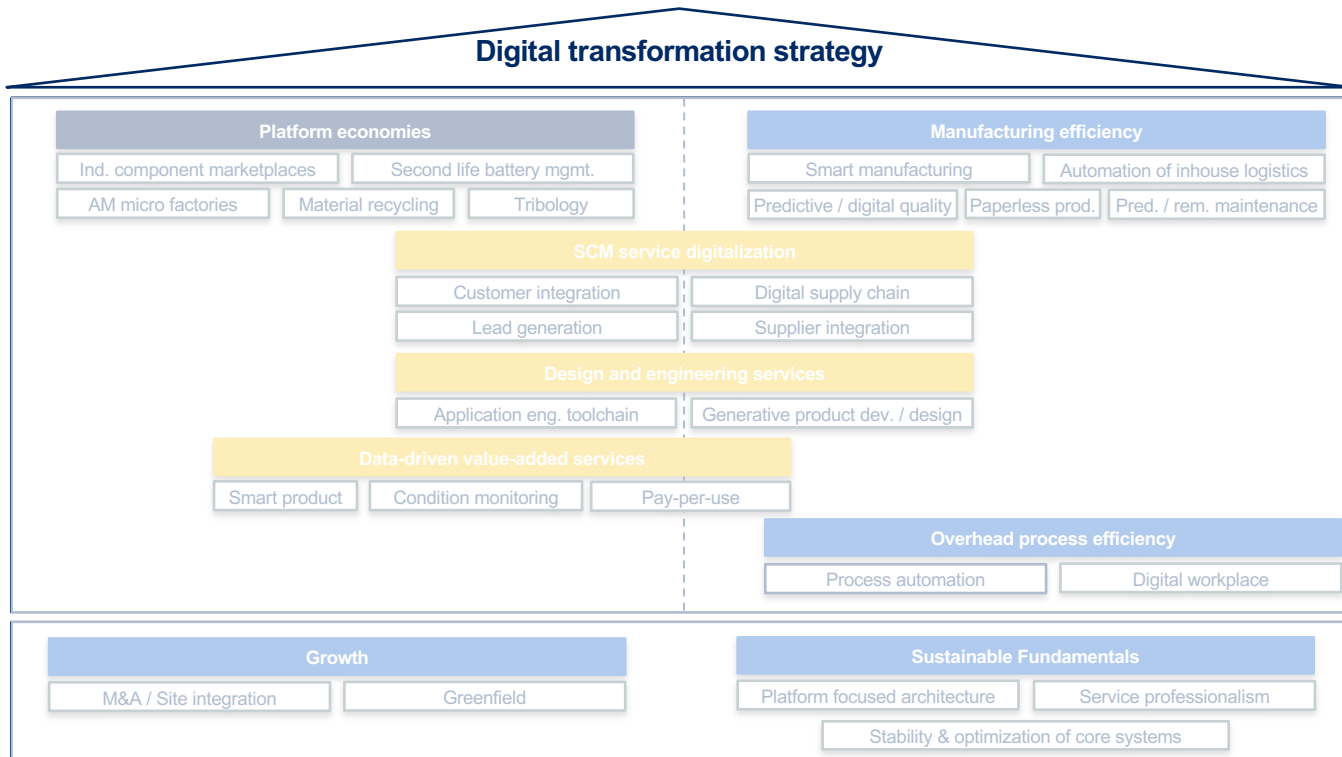
Data Literacy

### Customer



Customer Integration

# Basis: Capabilities to enable digital transformation



Quick validation



Continuous adoption



Fast scaling



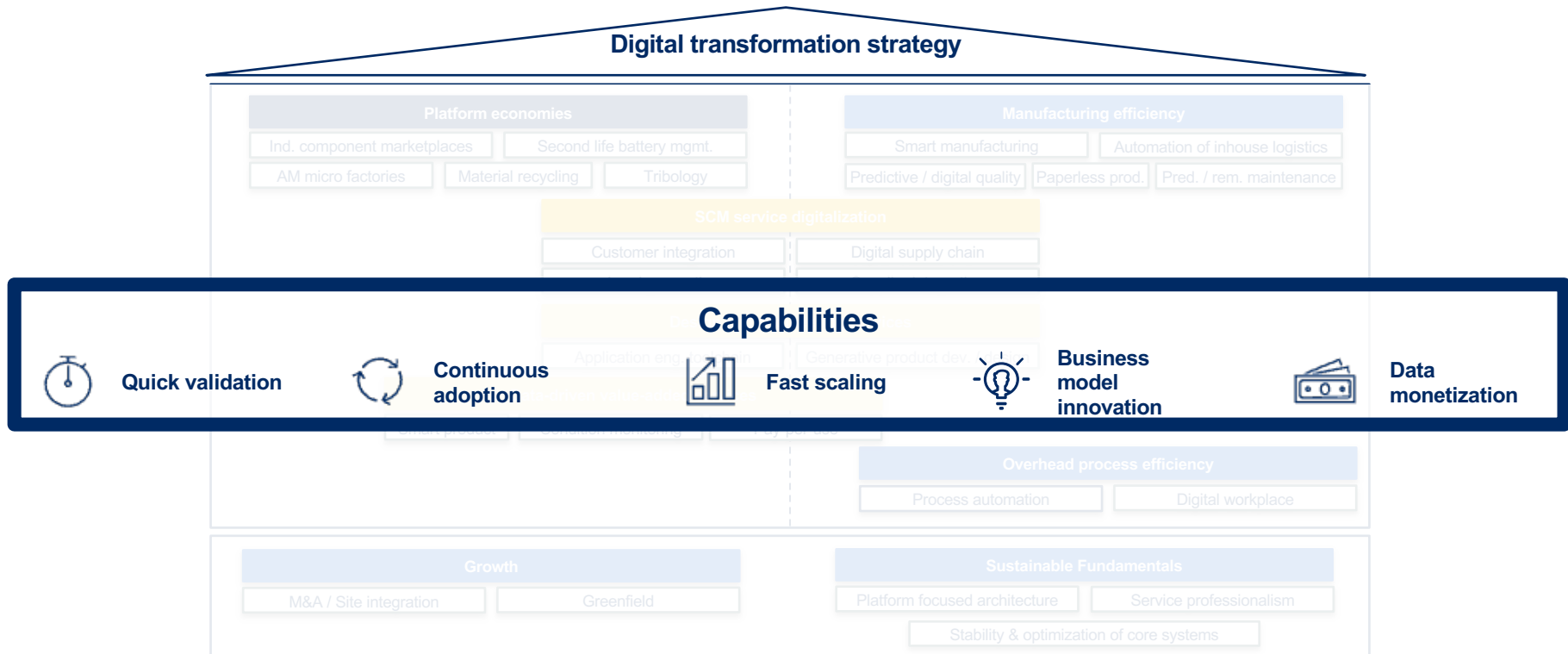
Business model innovation



Data monetization

## Capabilities

# We identified 5 capabilities



We launched our Digital Innovation Hub in 2022.

# Digital Innovation Hub to house first capabilities

## Capabilities



Quick validation



Continuous adoption



Fast scaling



Business model innovation



Data monetization



**DIGITAL  
INNOVATION  
HUB**

POWERED BY 

Kil it or scale it.

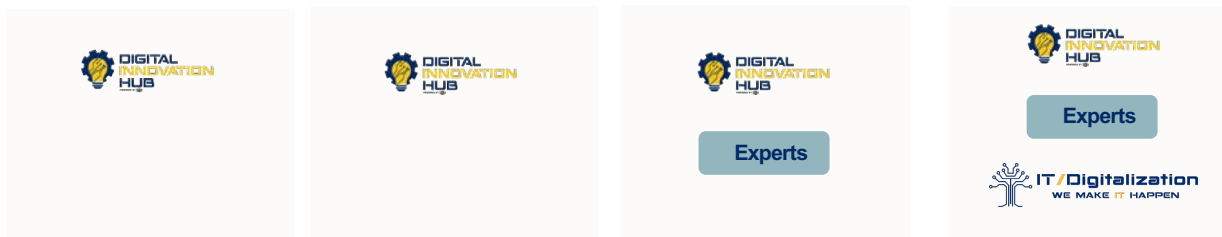
# Our Digital Innovation Funnel helps us to “kill it or scale it”



## Artifacts



## Parties



# SMART BEARING SYSTEM

We deliver powerful engine insights by equipping bearings with wireless, self-powered sensors.



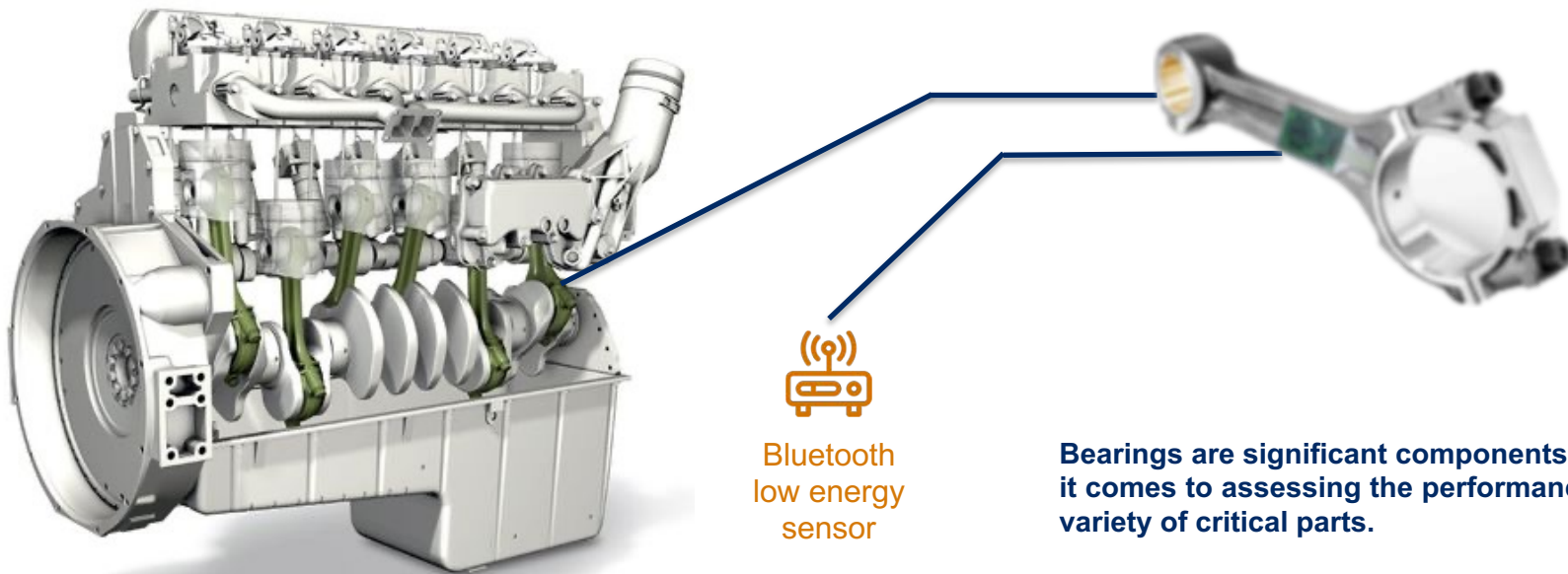
Google Cloud



nagarro



# The IIoT Enabled Bearing System

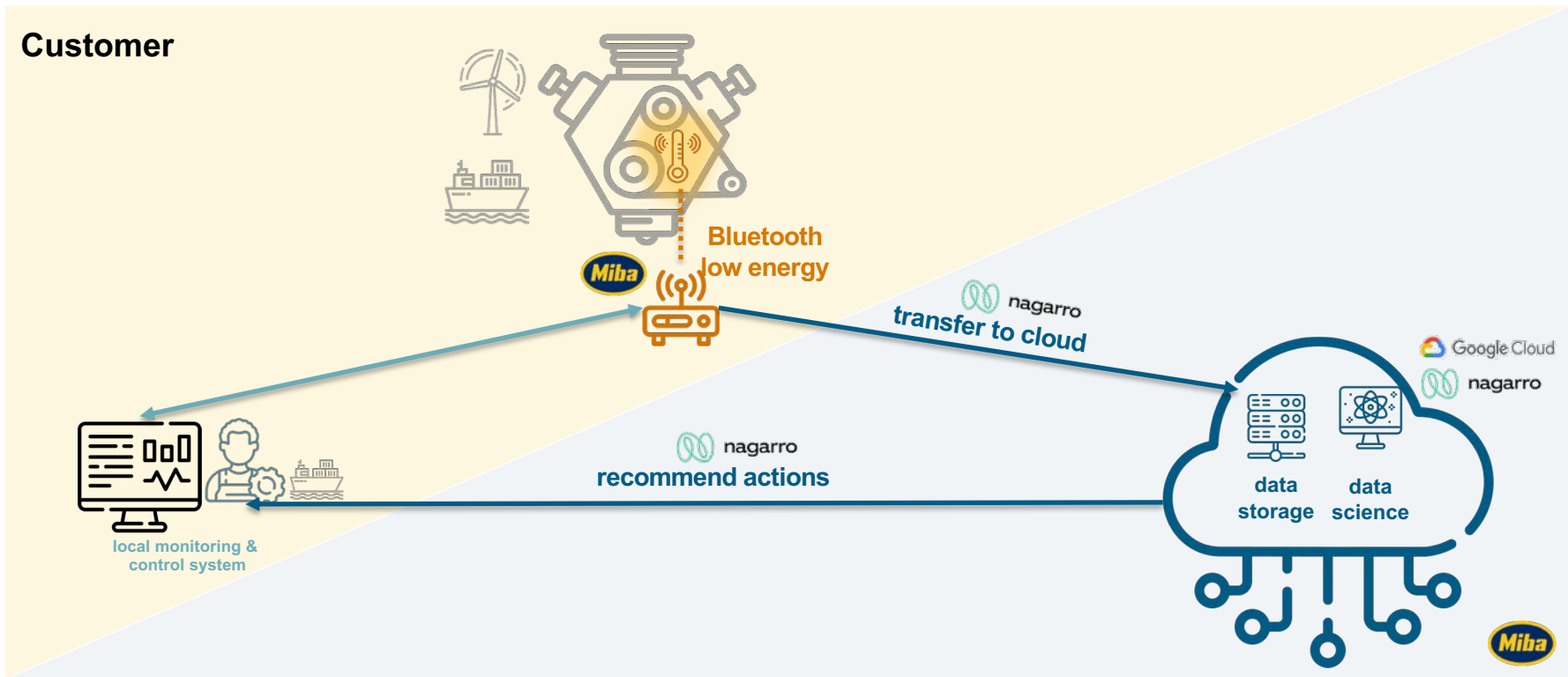


Bluetooth  
low energy  
sensor

Bearings are significant components, when it comes to assessing the performance of a variety of critical parts.

We identified that by monitoring bearings we can deliver data that has big impact on decisions regarding the overall application.

# Schematic description of solution idea



**OUR VISION:**  
**NO POWER**  
**WITHOUT MIBA**  
**TECHNOLOGY**



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