

# Harnessing the Full Potential of Analytics, AI and Big Data



Presenters

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CEO



# Wapice

## Creating a smarter future today



- Established in 1999
- Private ownership
- Continuous organic and profitable growth
- Employing over 350 highly skilled software and electronics experts
- 10 office locations in Finland
- ISO 9001, ISO 14001, ISO 27001 certified



# Wapice – Our services

Creating a smarter future today



Electronics Design and Embedded Systems



Internet of Things Services



Service Design



Technology and Software Solutions



Cloud Services



Consulting



Digital Solutions and Services



Analytics and Big Data



DevOps



Web and Mobile solutions



Augmented Reality and Artificial Intelligence



InfoSec



Artificial Intelligence in Manufacturing

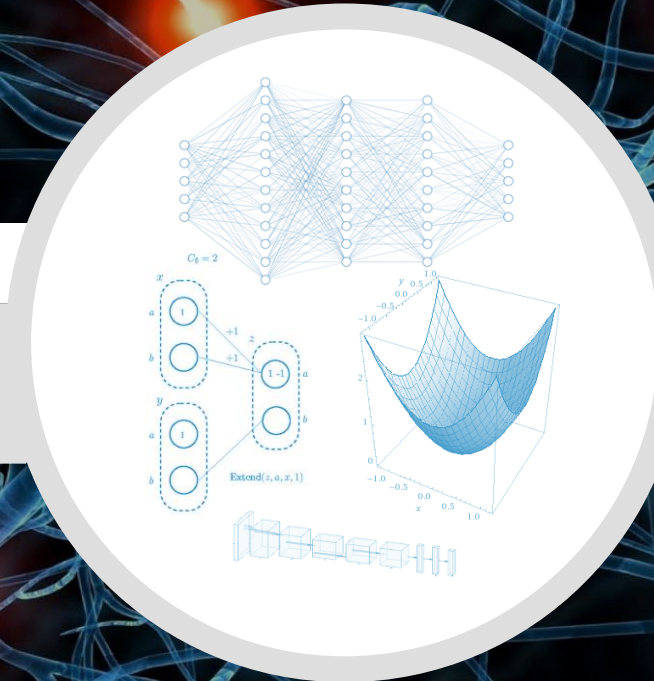
It's all about smarter processes, machines and their co-operation 



# Artificial Intelligence features for industry

## Real time data sources

Video  
Audio / vibration  
Streaming sensor data



## Technological aspects

Deep Neural Networks (DNN)  
CSP / mathematical optimization  
Clustering

# Transforming Industrial Companies with Artificial Intelligence

From sales to service and maintenance



## Sales process

- Clustering customers
- Digitalization of sales
- Digital services
- eCommerce



## Smart connected products

- DevOps & QA
- Comprehensive technology
- Agile development
- Digitalisation capability
- We are "Solution provider"



## Operations

- Consulting
- Cloud development
- ICT & Analytics
- Best Practices
- New business concepts

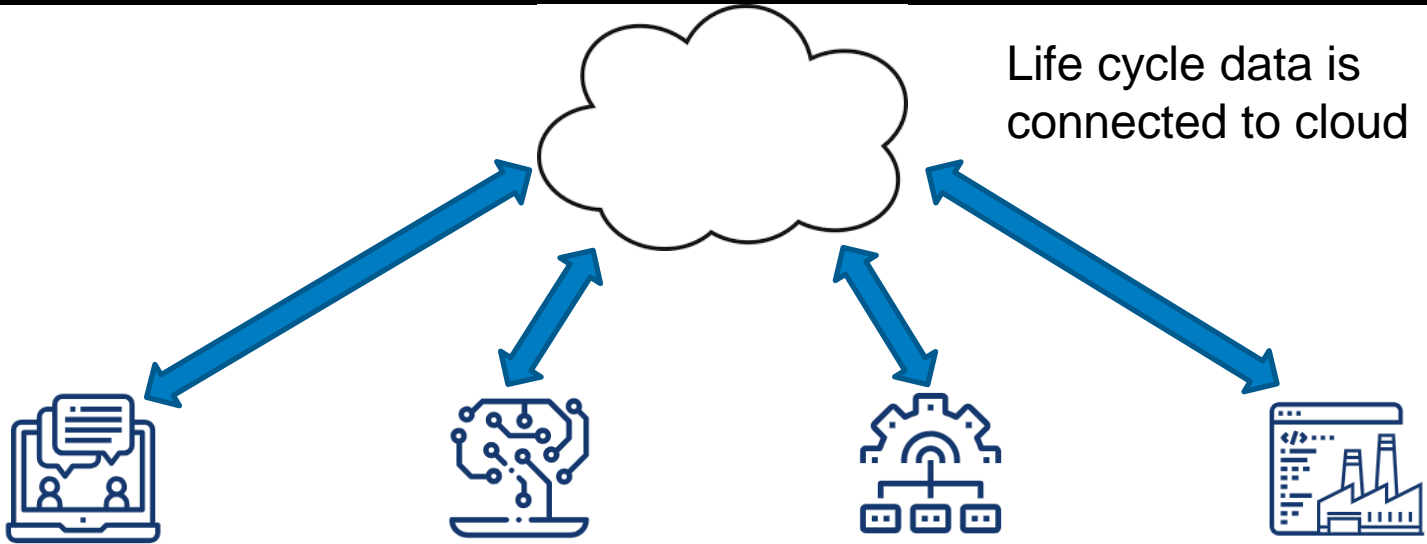


## Service and Maintenance

- After Sales Service
- Lifecycle services
- Ecosystem design
- Digitalization of service business

**We build Digital Companies**

Life cycle data is connected to cloud



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# Sales process optimization

AI enabled sales processes

Understanding hidden features

Suggesting better products

Scale sales expertise

Camera pan

Camera rotate

Model select/move



IoT-TICKET in Manufacturing

AI powered IoT Applications

## IoT-TICKET in Manufacturing

Create production-grade IoT applications fast






New Application



1

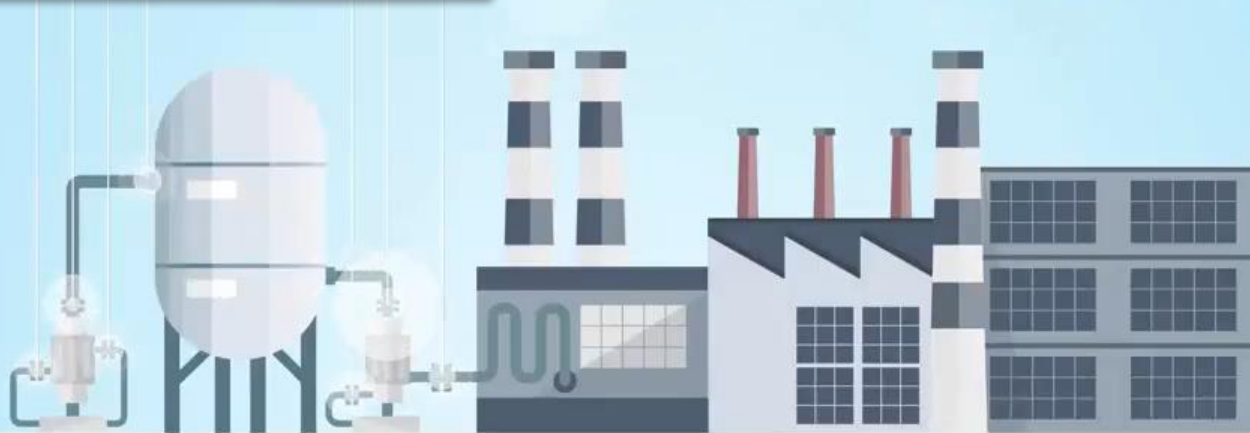
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-  Delete
-  Rename
-  Edit

# Smart Service and Maintenance

Closing the loop with cloud powered AI

Machines ordering spare parts for themselves

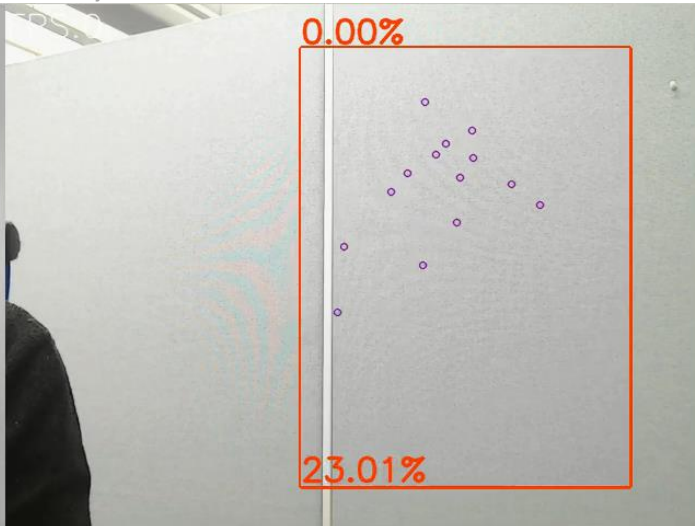


Trained object in good condition

Template

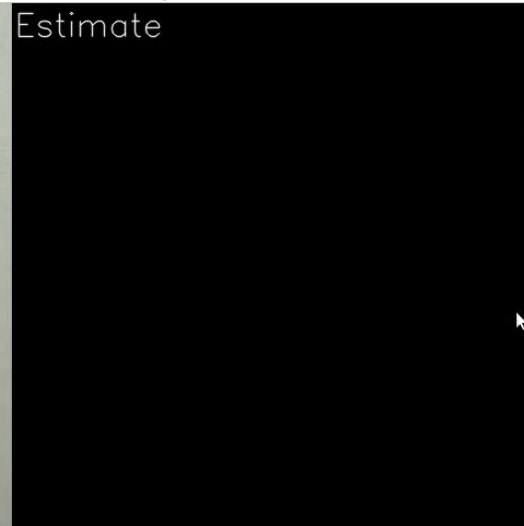


Live object stream



Stabilized object stream

Estimate



○ Anchor point

— Anchor trace line (trained vs. detected from stream)

% Probability

□ Object in good condition detected

□ No or invalid object detected

# Forecasting and Anomaly detection

Manufacturing pcs/days

1000 -  
800 -  
600 -  
400 -  
200 -  
0 -

2014-05 2014-09 2015-01 2015-05 2015-09 2016-01 2016-05 2016-09 2017-01

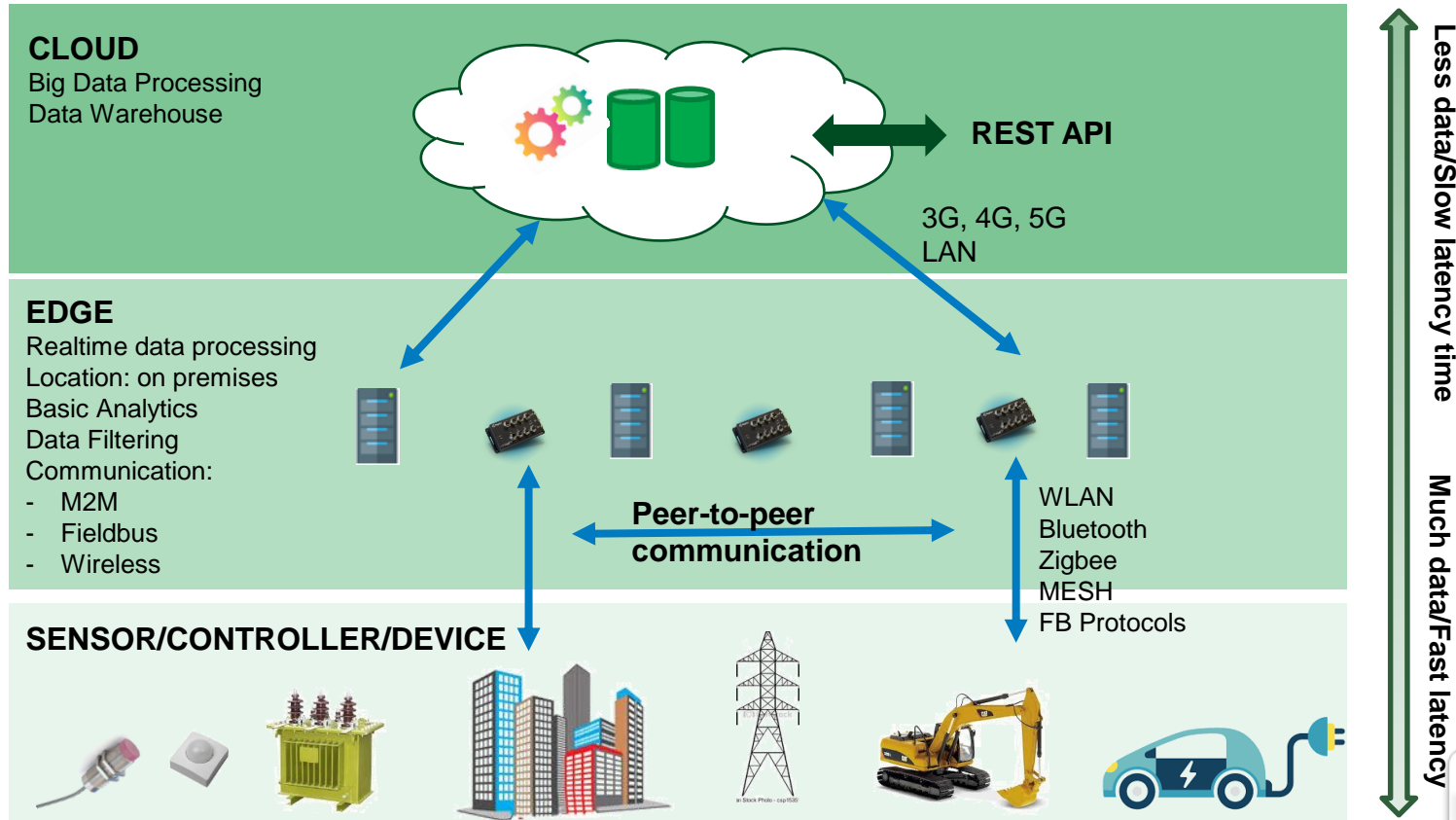
time





# EDGE is a boundary between device and cloud

"Hierarchical IoT"



## Worker Safety powered by AI

Detecting if persons wear a helmet



# State-of-the-art Face Recognition

Identity tracking



0



1



3

## Tracking object position in 3D space

Utilizing a dual camera setup



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# Thank you !

Artificial Intelligence & Manufacturing

 @Wapice

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