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PRODUCTION DATA TOWER



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softserve

GET THE ANALYTICS YOU NEED

Spin up your manufacturing
production data tower
within minutes



HOW IT WORKS

PRODUCTION DATA TOWER SIMPLIFIES YOUR DATA COLLECTION PROCESS

Our solution is designed to meet you where you are, regardless of your factory's maturity level. If you're at the stage where you're comfortable extracting data from a CSV file, we've got you covered.

MAP YOUR
DATA FORMAT

EXTRACT IT INTO
A CSV FILE

PERFORM A STANDARD
FILE UPLOAD

We also understand that as your factory grows, so will your need for automation.

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THE PRODUCTION DATA TOWER CAN:

Execute queries from your MES, SCADA, or ERP systems.

Proconnectors for automated data capture. wide support for adapters

Offer various data pipelines, automating the flow of data into our solution.

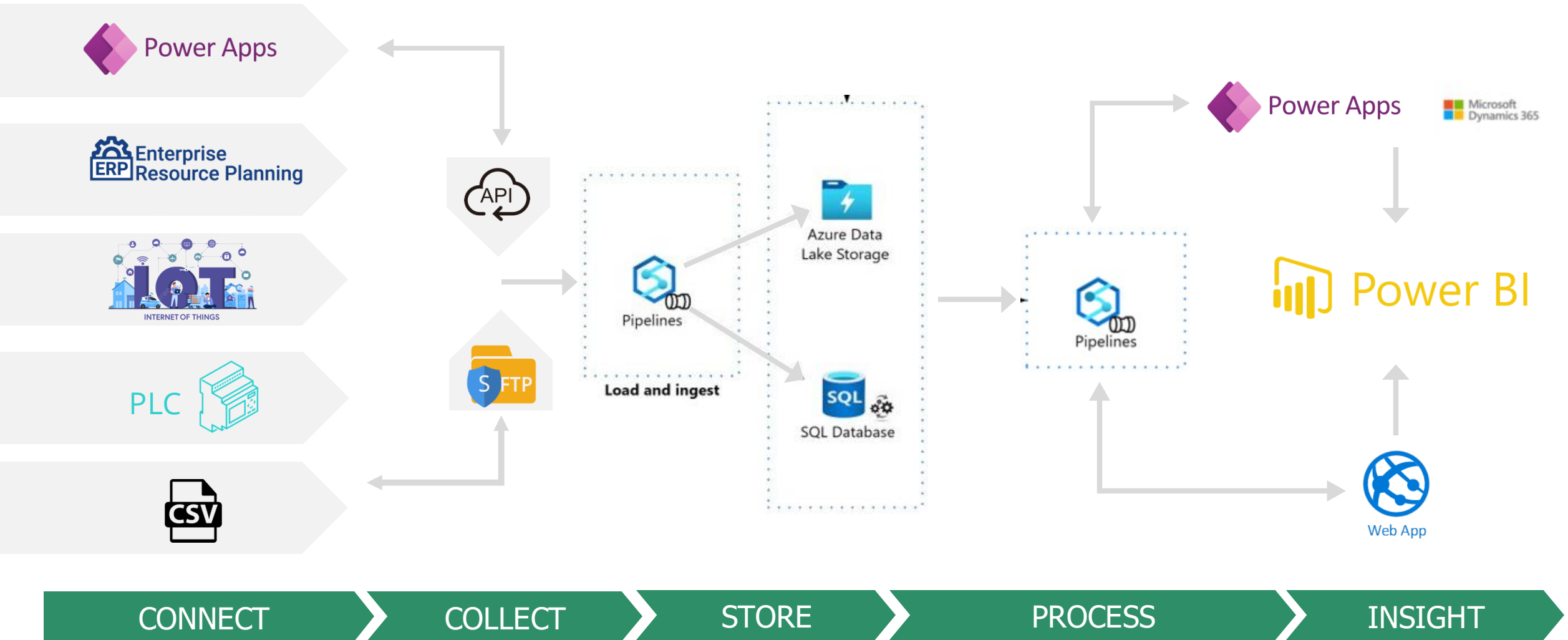
An integration with visual inspection solutions to capture that additional data.

Leverage low-code solutions to digitalize data capturing.

As you evolve, we evolve with you, ensuring that you always have the most efficient, effective way to gather and analyze your data.

You're only minutes away from making smarter, data-driven decisions.

ARCHITECTURE DIAGRAM



ENGAGEMENT PHASES

POC (6 WEEKS)

ACTIVITIES:

- Analyze and adjust Production Data Tower requirements
- Define and adjust Data model based on Client specific
- Create Microsoft Power Apps based application for Quality inspection data entry
- Setup Microsoft PowerBI dashboards for Production quality analysis for one Production area

OUTCOME: fully workable solution for Quality inspection automation and data analysis

MVP (OPTIONS)

ACTIVITIES:

- Setup file-based (or API-based) data collection from Client's data source to feed data for additional dashboards
- Extend Production quality dashboards to other Production areas
- Build additional Dashboards to analyze OEE and Production efficiency data. Build Dashboard hierarchy of data analysis from Factory to Production line level
- Conduct User acceptance testing and Deploy to production

OUTCOME: Production Data Tower solution deployed on Client's Production environment and ready-to-use

ANALYTICS DASHBOARD EXAMPLES

The Production Data Tower offers near real-time visibility into key production KPIs. It provides an aggregated view of all your production capabilities, with the flexibility to focus on individual production sites, enabling root cause analysis by clicking on underperforming indicators.



REAL- WORLD SCENARIOS

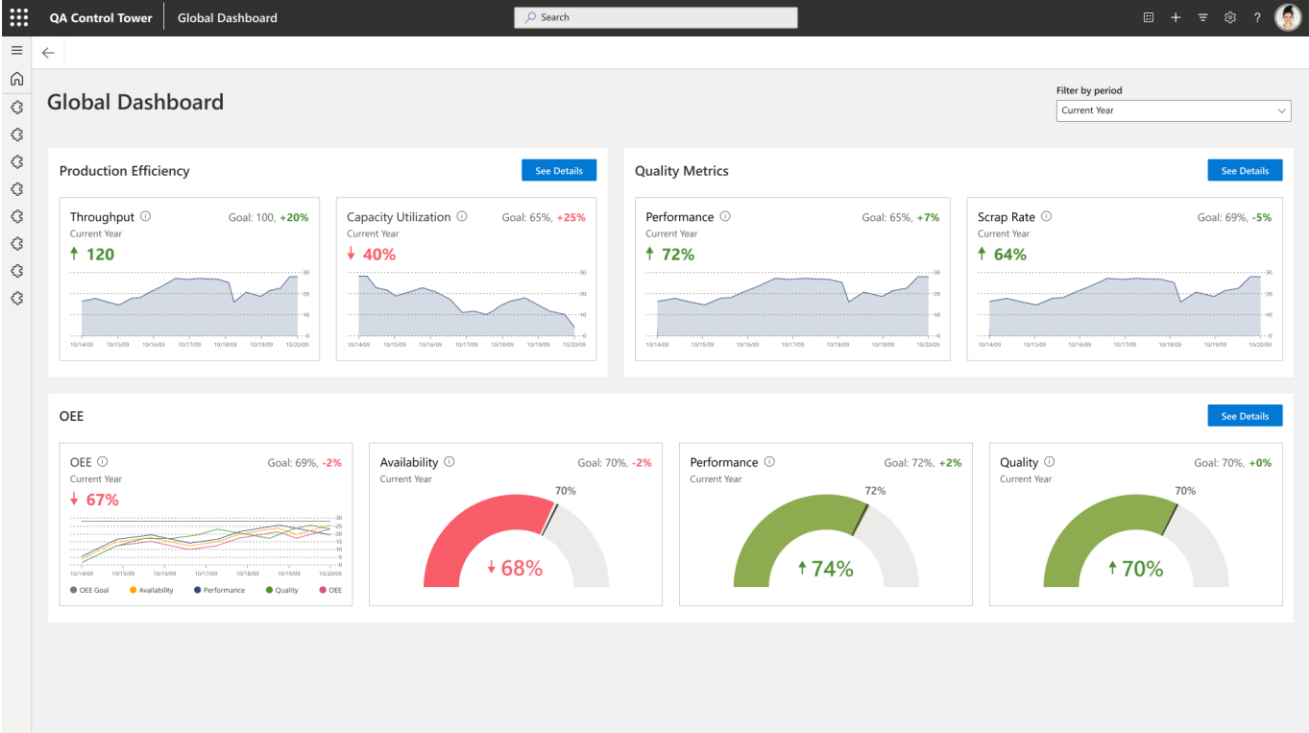
Meet Mark, Factory
Production Manager



REAL-WORLD SCENARIOS



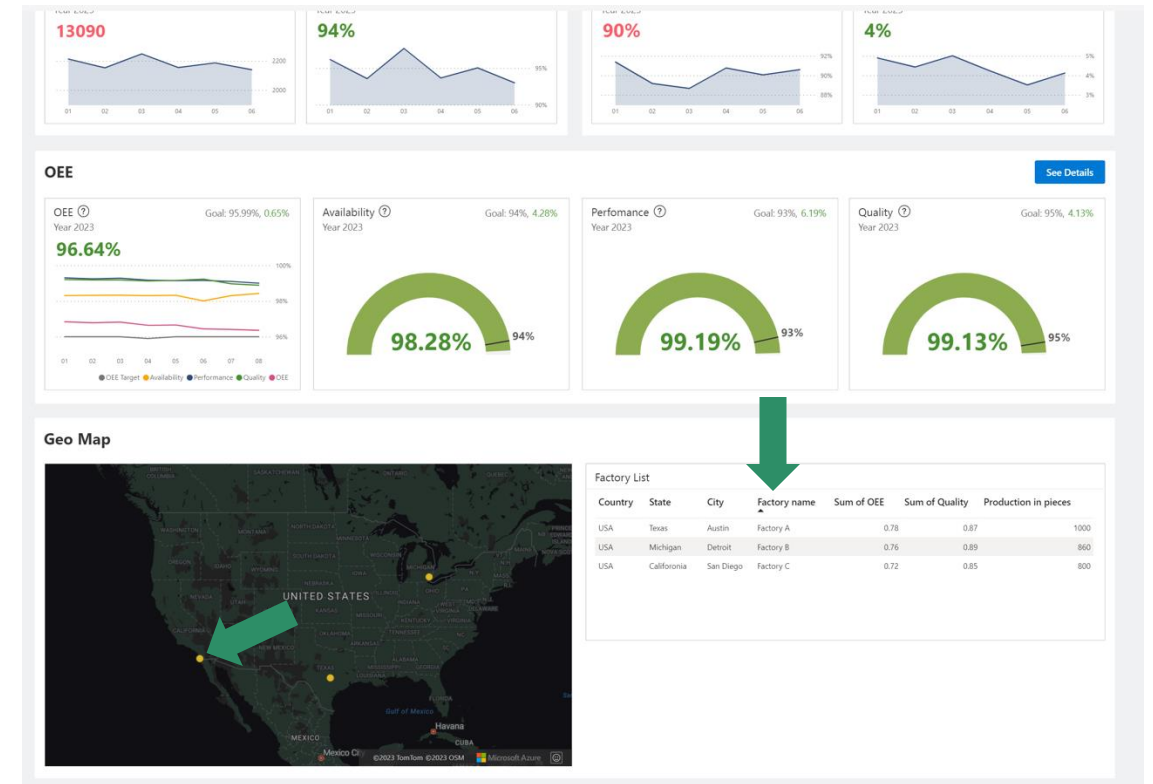
Mark uses the global dashboard to access production efficiency, quality, and OEE metrics for all his production facilities.



REAL-WORLD SCENARIOS



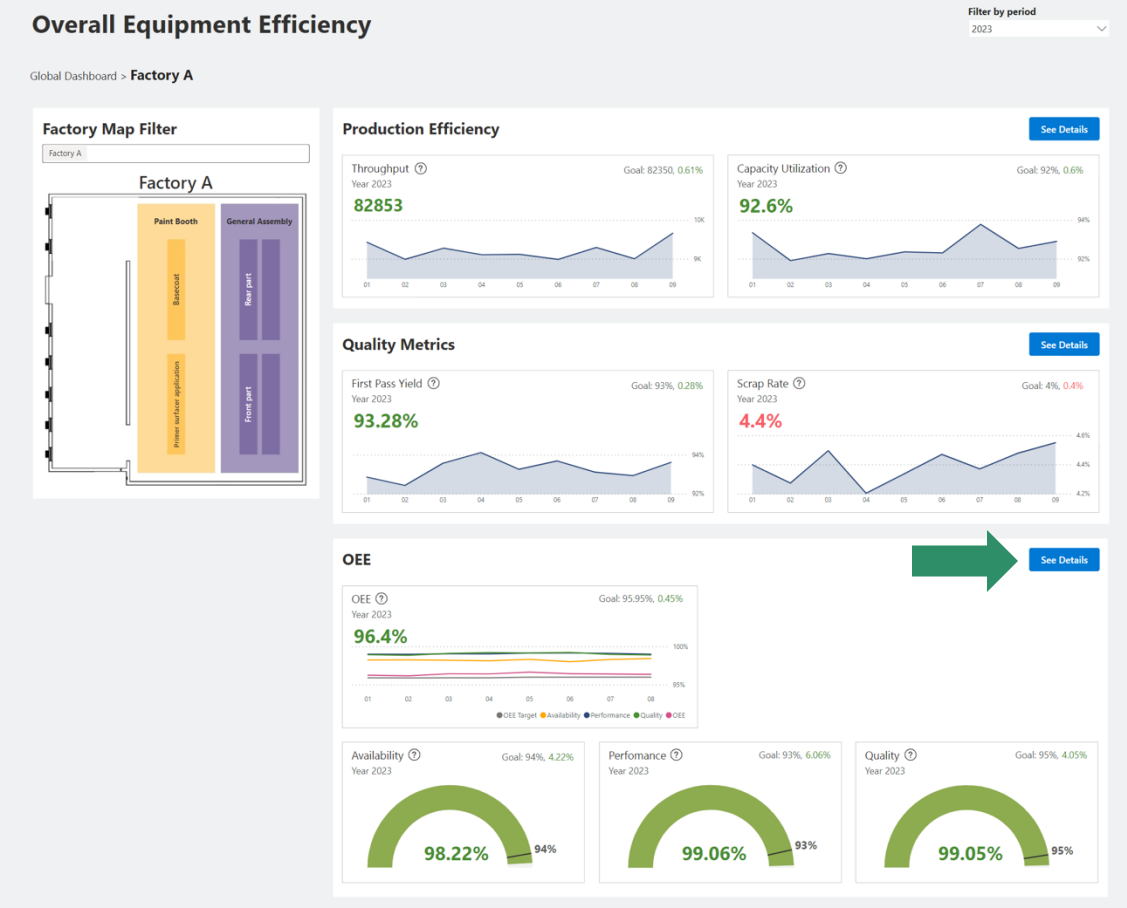
Mark would like to analyze what is going on with the availability metric. Here, he only sees an aggregated view. However, Mark will have the ability to also review in greater detail each of the factories to identify the root cause. Once he picks the relevant unit, he will be redirected to the factory level dashboards. From there, he delves deeper into the details to find the root cause analysis.



REAL-WORLD SCENARIOS



Mark has visibility of different factory areas and individual production lines. He can click through to that factory's quality overview dashboard.

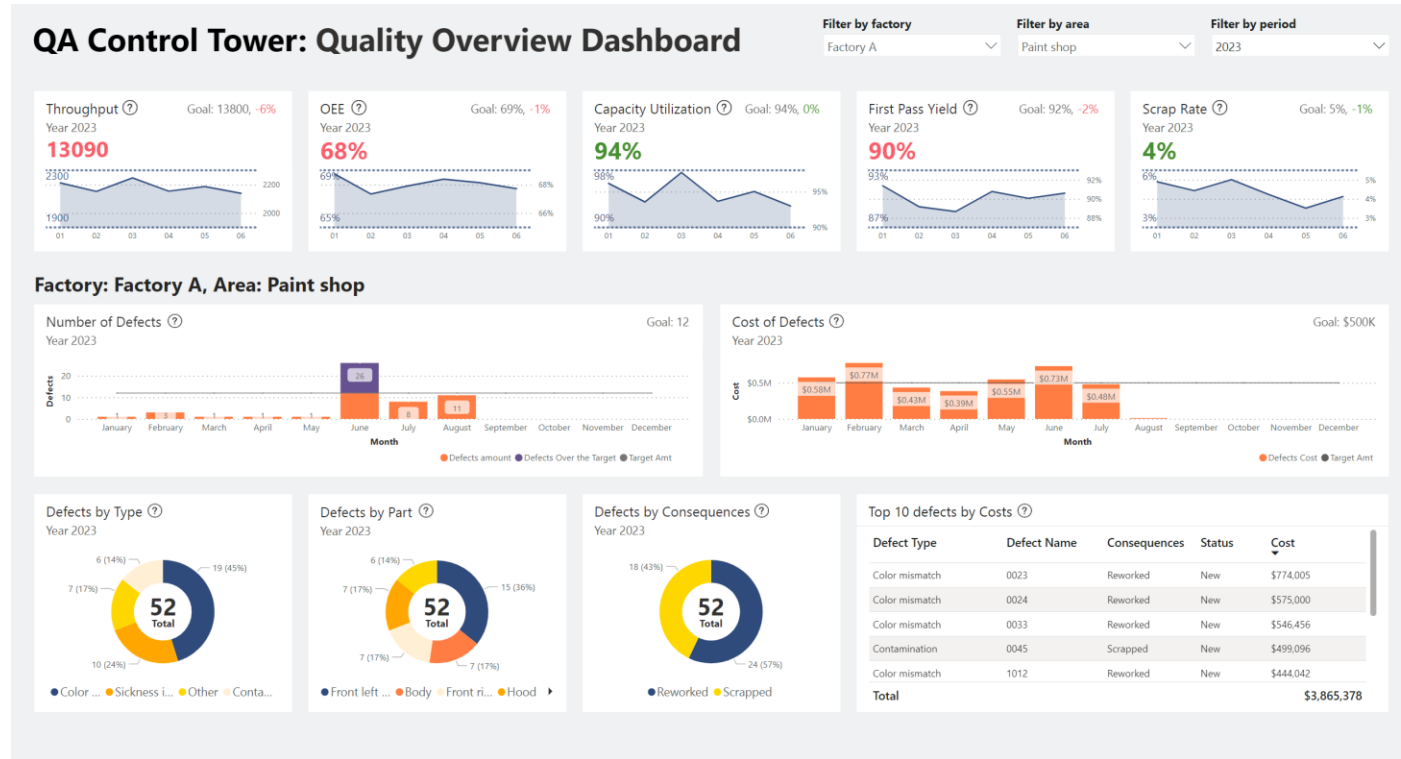


REAL-WORLD SCENARIOS



This dashboard offers insight into your factory's overall quality metrics, allowing you to view metrics such as:

- The number of defects compared to the target
- Defects categorized by type
- Defects categorized by consequence
- Defects categorized by parts
- The cost associated with defects



REAL-WORLD SCENARIOS



Mark contacts Jane, the quality manager of this factory floor.

Jane focuses on quality management and continuous process improvement. Having access to the same dashboards as Mark, she has already discovered the machine that is down and is working on a solution.

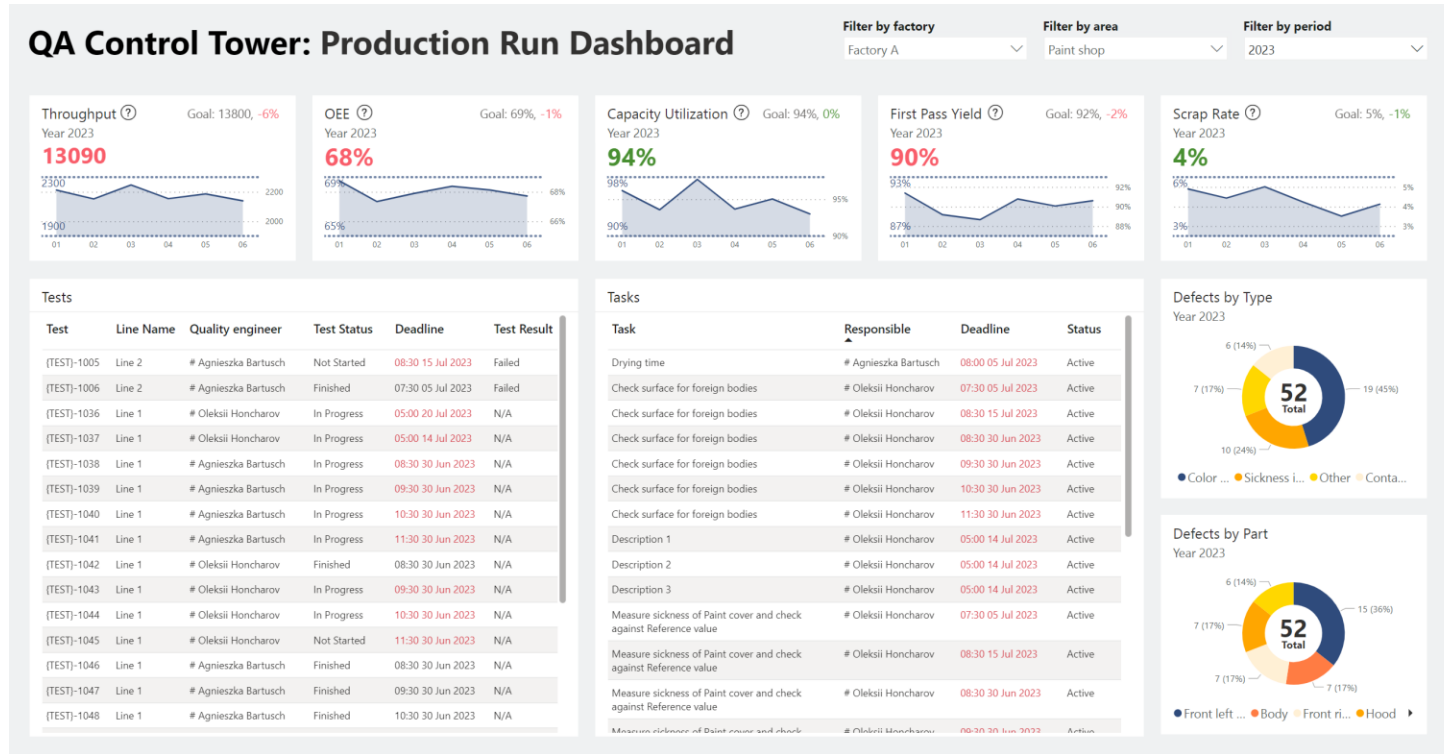


REAL-WORLD SCENARIOS



To schedule a fix, she can use her interactive report dashboard that displays tasks, assignments, workload, and test statuses — allowing her to see when an engineer can fix the problem and how quickly the machine will be up and running.

Jane's view is designed to make her job more manageable.



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PRODUCTION DATA TOWER

USE CASES



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1 FACTORY PRODUCTION METRICS ANALYSIS

Examine factory metrics, such as OEE, performance, and quality, to gain high-level insights into factory operations.

2 PRODUCTION QUALITY METRIC ANALYSIS

Assess production quality metrics, such as scrap rates and first-pass yield, at the factory or production line level. Conduct detailed root cause analyses by exploring defect counts, their categories, consequences, and costs.

4 PRODUCTION QUALITY CHECKLIST PREPARATION

Develop digital procedures and checklists to guide the production quality inspection process.

3 OEE METRICS ANALYSIS

Evaluate overall equipment efficiency (OEE) metrics and their components (availability, performance, quality) at the factory or production area/line level. Conduct a detailed root cause analysis of OEE by delving deeper into equipment downtime/uptime details.



5 PRODUCTION QUALITY CHECKS

Enable operators or quality engineers to perform production quality inspections using digital solutions.

6 QUALITY ISSUE REGISTRATION

Empower operators or quality engineers to log quality incidents into digital solutions, assign necessary actions, and conduct root cause analyses.



8 PRODUCTION DATA COLLECTION AND INTEGRATION

Collect data from various sources and digital solutions to facilitate end-to-end production data analysis (Production Data Tower).

7 PRODUCTION QUALITY DATA COLLECTION

Gather data from digital quality inspection solutions to analyze quality metrics and generate corrective actions.

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WHY SOFTSERVE?



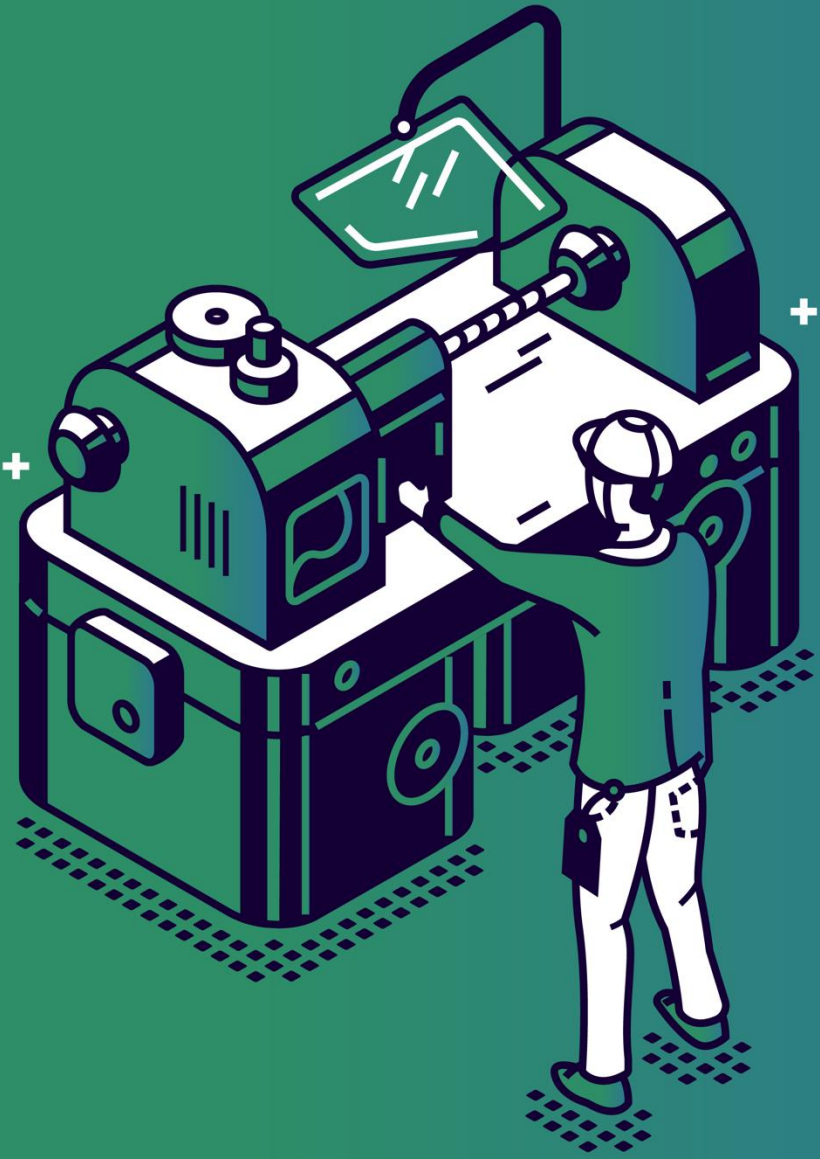
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WE ARE EXPERTS WHO CAN EXECUTE



RESULT-ORIENTED

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softserve

WE SPECIALIZE IN



ENGINEERING SERVICES



CLOUD/DEVOPS



BIG DATA & ANALYTICS



AI & ML



INTERNET OF THINGS



EXPERIENCE DESIGN



CYBERSECURITY



EXPERIENCE PLATFORMS



EXTENDED REALITY (XR)



RESEARCH & DEVELOPMENT



ROBOTICS



SOFTSERVE INNOVATION PLATFORM™

SOFTSERVE CENTERS OF EXCELLENCE

RESEARCH & DEVELOPMENT

- Deep Tech Research
- Advanced AI
- Tech Commercialization
- R&D Innovation
- Feasibility Study
- R&D as a Service

INTELLIGENT ENTERPRISE

- Big Data
- Data Science, AI/ML
- IoT
- Robotics
- Extended Reality (AR/VR/MR)
- Digital Twins
- Blockchain

EXPERIENCE DESIGN

- Design Thinking
- Design Research
- Design Strategy
- Product Design
- Service Design
- DesignOps

PRODUCT MANAGEMENT AND BUSINESS ANALYSIS

- Product Strategy & Design
- Lean Product Management
- Business Analysis & Process Design
- Operational Efficiency

PLATFORMS

- Performance Testing
- Salesforce
- Sitecore
- MS Dynamics
- AEM
- EPiServer
- MuleSoft
- Magento
- Dell Boomi
- Shopify
- Drupal

CRITICAL SERVICES

- Cloud/DevOps
- Security & Governance
- Operations Support
- Application Support

SOLUTIONS

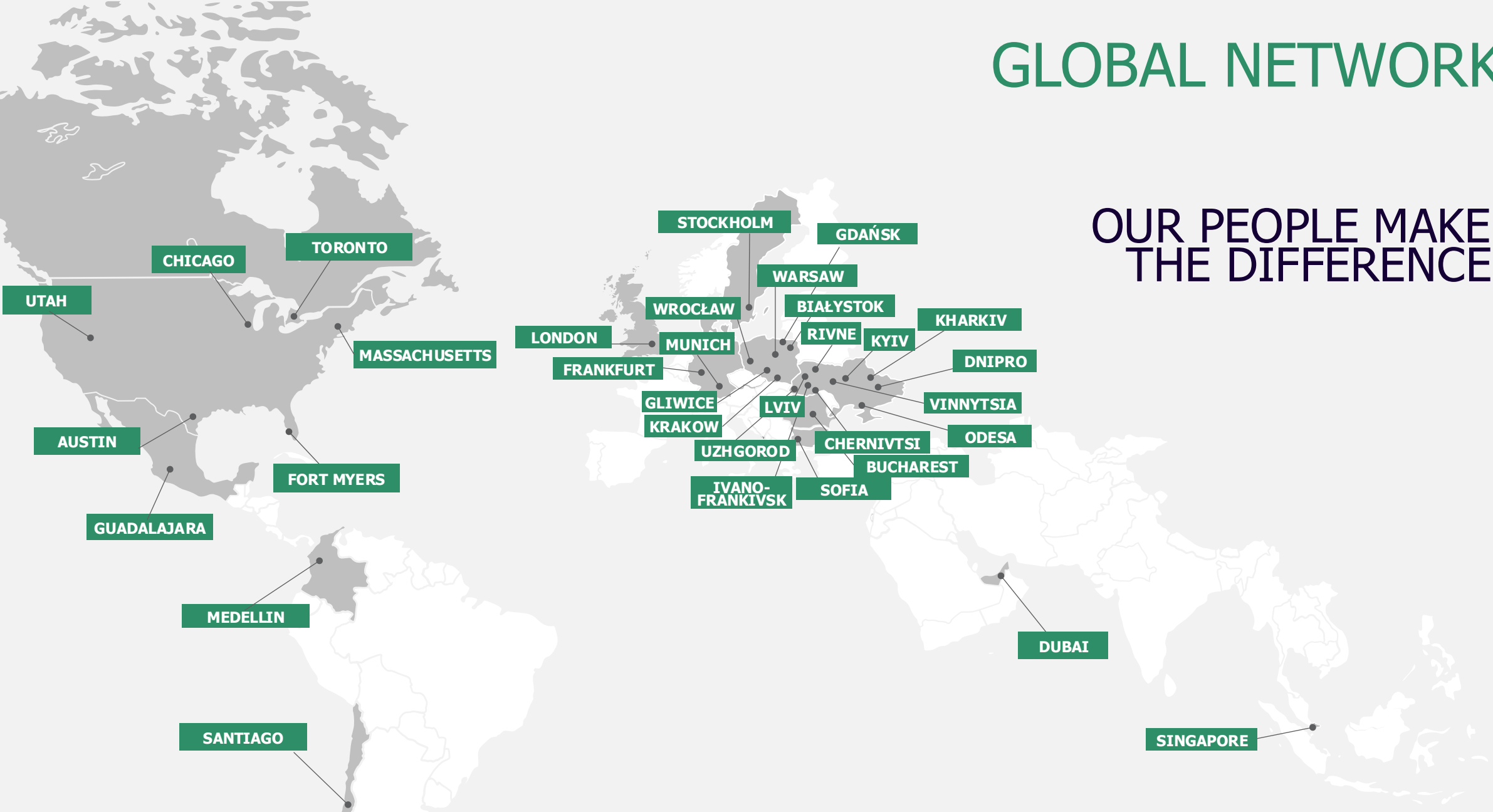
- Cloud/DevOps
- Security & Governance
- Operations Support
- Architecture
- Technical Due Diligence

INNOVATION

- Innovation Strategy
- Innovation Platform

GLOBAL NETWORK

OUR PEOPLE MAKE THE DIFFERENCE



CLIENT CENTRICITY

TRUST
80

Our Net Promoter Score
leads the industry

EXPERIENCE
12k+

Complex success stories
delivered

REQUEST A DEMO

SEE HOW IT WORKS



PRODUCTION CONTROL TOWER

Get the analytics you need. Spin up your manufacturing production control tower within minutes. Yes, it's possible.

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FUTURE