

# Smart Factory Showcase

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# Overview



Introduction

Business Expectations

Software Architecture

Cloud (Hardware) Infrastructure

Q & A

# Introduction

## Who I am

- ✓ Graduate of Computer Science in Goethe University Frankfurt, Germany
- ✓ Microsoft Certified: Azure Solutions Architect Expert
- ✓ 17+ Years of experience
- ✓ 10+ Years Azure experience
- ✓ Co-Organizer of Azure Meetup Frankfurt

## Where I work

- ✓ 50+ Locations and 2000+ Employees in AT and DE as part of ACP Group
- ✓ 30+ Software Engineers
- ✓ 250+ Cloud and Software Projects
- ✓ 20+ Years experience in Software Development with .NET Technology
- ✓ 13+ Years Azure experience



# Business Expectations

## Starting Point

Industry leader in manufacturing of industrial pipes with factories in multiple continents, is confronted by new customer in automotive industry with requirements to access and analyze all production telemetry data.

## Result

Development of a smart factory solution based on Microsoft Azure. Solution contains set of Web Applications used for monitoring and production as well as connectivity interface to diverse production machines using Azure IoT tools.

## Benefits

Centralized collection of production telemetry data for future analysis and export.  
Improvement and error reduction in production processes using operator UIs.



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# Software Architecture

## Technology Stack

- .NET Framework (3.1 and 6.0)

## Tooling

- Microsoft Visual Studio
- Azure Data Studio
- Azure IoT SDK
- Postman

## Patterns

- Microservices
- REST API (Frontend-to-Service and Service-to-Service communication)



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# Cloud Infrastructure

## Hardware

- No Hardware!

## Azure Cloud Services

- Web Applications and Functions
- Edge IoT
- SQL Database
- CosmosDB Database
- Service Bus, SignalR
- Storage Accounts, Container Registry

## Middleware

- Azure Data Factory



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# Thank you!

## Questions?

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 **AZURE MEETUP FRANKFURT:** <https://www.meetup.com/azure-meetup-frankfurt/>

 **Unser Developers Blog:** <https://developers.de/>

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