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# Tracking Productivity for Garment Manufacturing

Introducing Industry 4.0



# Agenda

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Introduction to Industry 4.0 systems

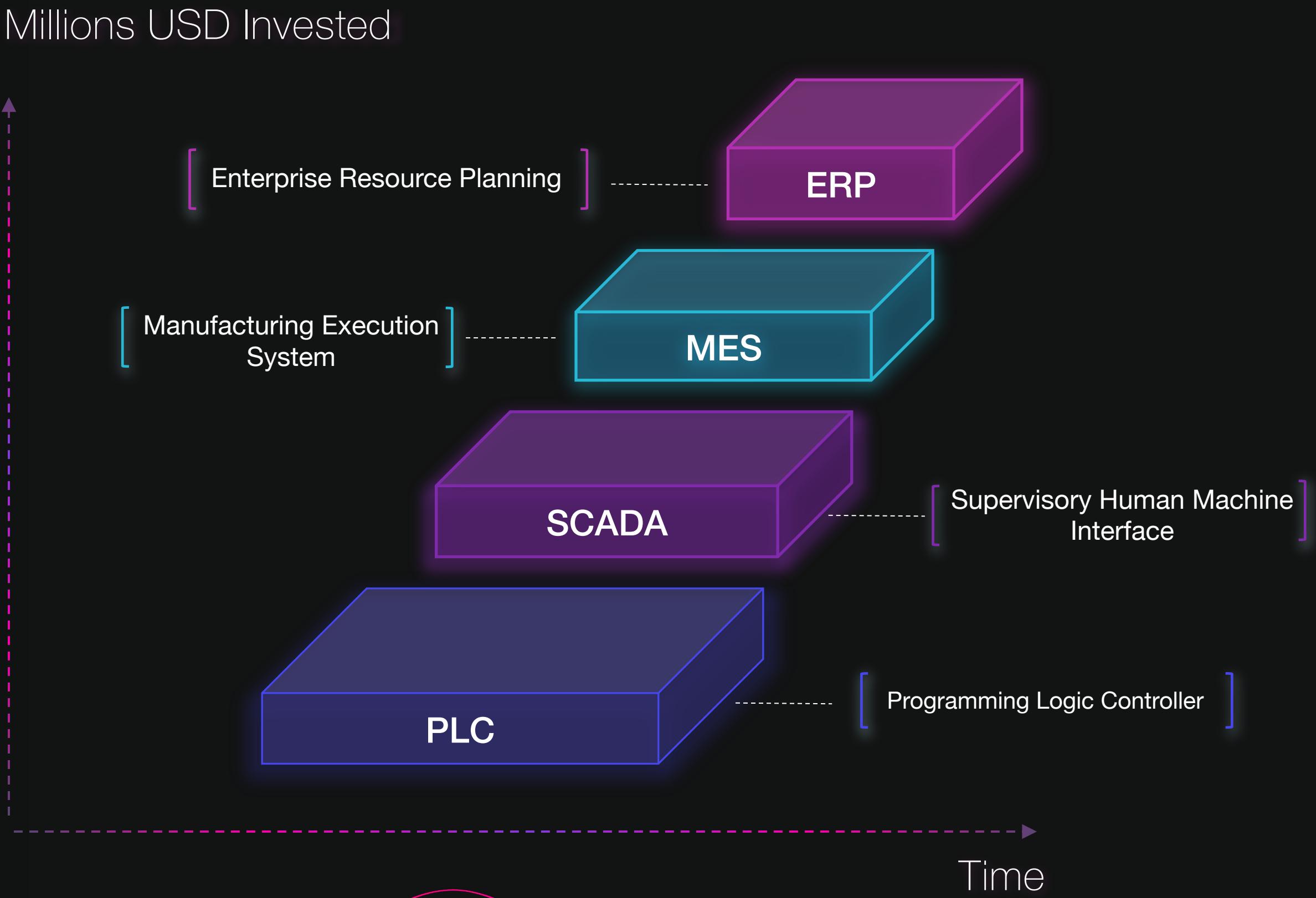


Understanding Client Challenges



Business Product Description and  
Proof-of-Concept Demo

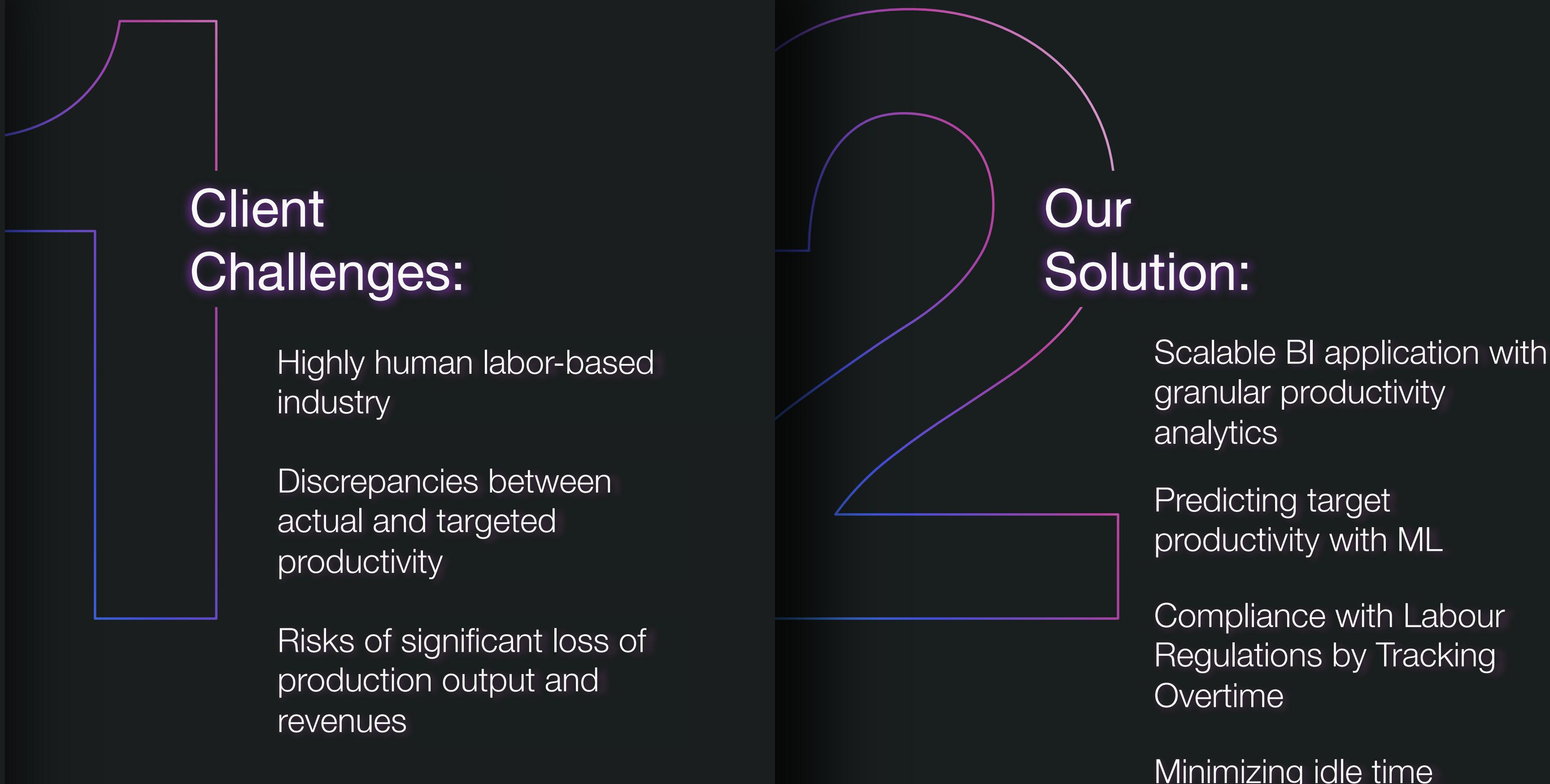
# Behind the Scenes: Systems Bringing Industry 4.0



“

We are an SME fabric in garment industry.  
Guide us into Industry 4.0

”



## Client Challenges:

Highly human labor-based industry

Discrepancies between actual and targeted productivity

Risks of significant loss of production output and revenues

## Our Solution:

Scalable BI application with granular productivity analytics

Predicting target productivity with ML

Compliance with Labour Regulations by Tracking Overtime

Minimizing idle time

# From Raw Data to Insights: The Roadmap of Business Product



## 1 Connecting Data Sources

Creating Single Point of Truth from Databases and Text data available



## 2 Preprocessing Data & Predicting Productivity

Python based ETL: Cleaning missing data and errors, transformations & predicting with XgBoost mode – OOP approach



## 3 Power BI Dashboard

Granular Analytics of Actual and Targeted Productivity, the impact of features, overtime tracking



## Data & Insights



### Analyzed Features

- Actual productivity
- Targeted productivity
- Predicted productivity (latest week)
- Date
- Departments
- Teams
- Overtime hours
- Production interruptions
- Style changes
- Monetary Incentives
- Time allocation for a task