

# FACTORY BUILDER AI

AI-powered Platform for Smart Factories Design:  
Production Layout Visual Design and  
Scenario-based Efficiency Analysis

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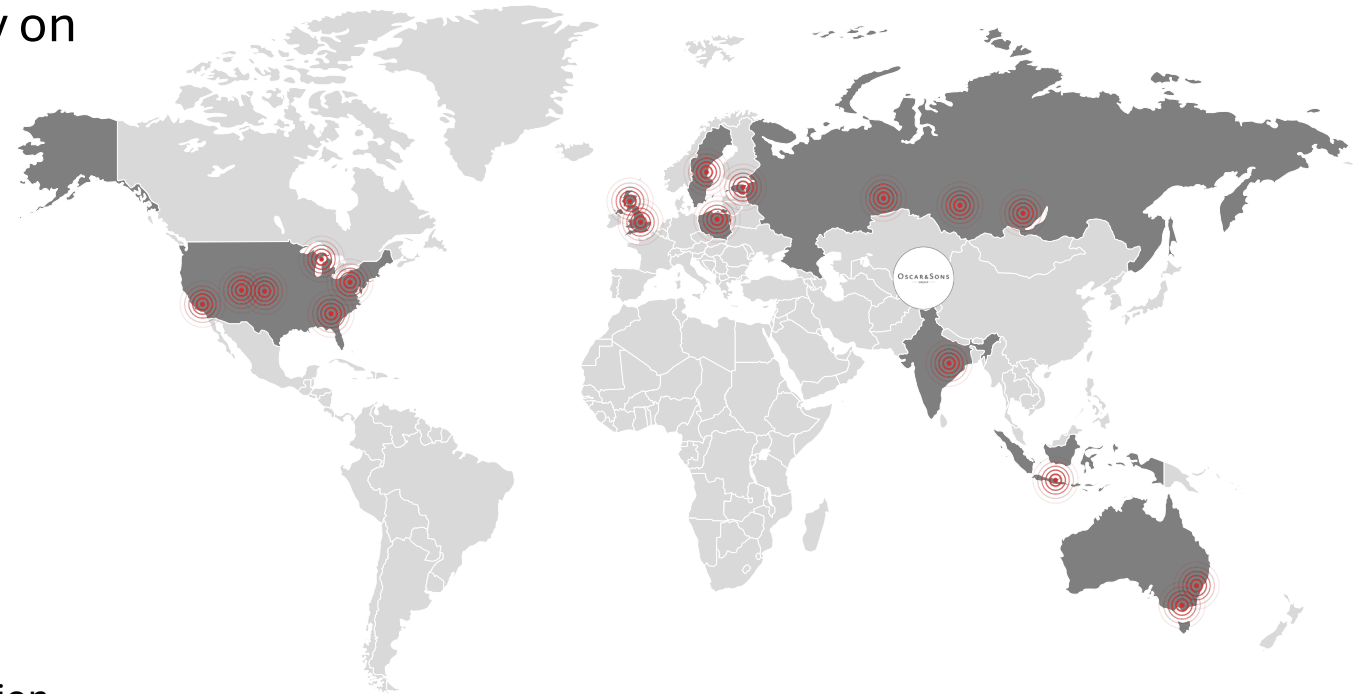
# The Problem: **New Factory CAPEX**

Many companies spend enormous money on **building, launching, and reconfiguring** factories and facilities that **will never pay for themselves.**

Key factors:

1. Changes in the cost of purchased materials, availability of personnel and equipment.
2. Changes in the dynamics of production flows.
3. Outdated standards like ISA-95
4. Fragmented “Island” automation
5. Inefficient CAPEX investments and rising production costs

The result is **Low Flexibility** and **declining competitiveness**



**Map of Failed Factory Projects  
in last 10 years**

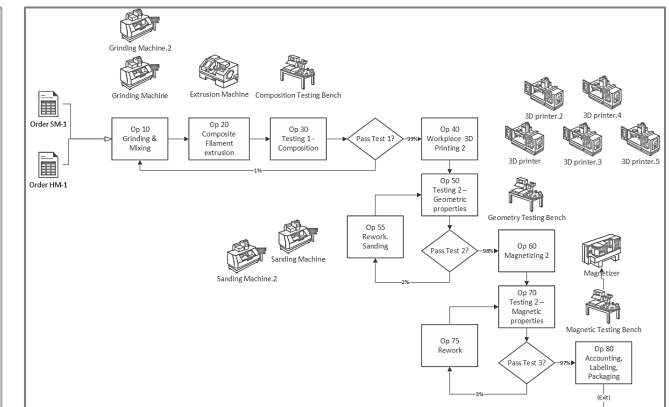
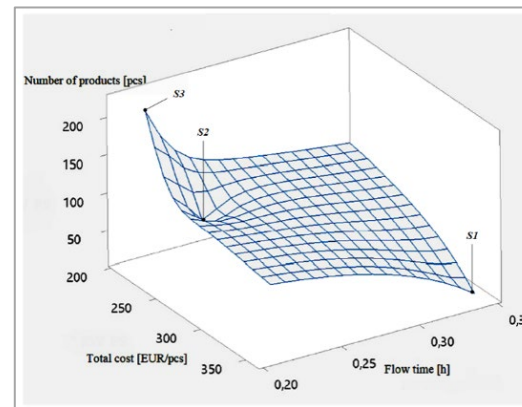
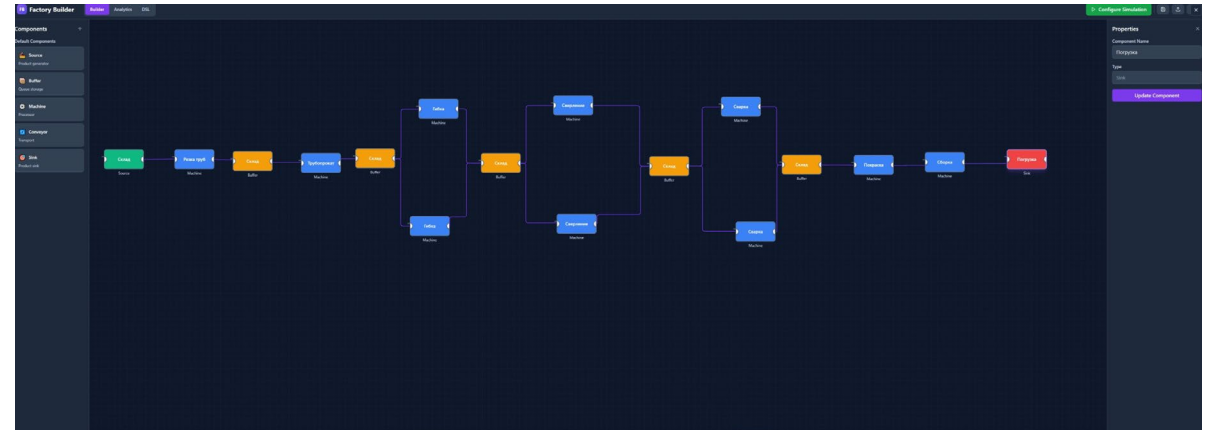
# The Solution: **FACTORY** **BUILDER AI**

1. Visual Drag-and-drop Factory Design Platform
2. Flexible Change Scenario Simulation Tool
3. Flow simulation with ML models predicting bottlenecks
4. AI assistant that suggests the best configuration
5. Strong Scientific Background in Industrial CPS

This bridges **Industrial** needs and **Science**

# Advantages: **FACTORY** BUILDER AI

- **AI-first approach**  
automatic design and optimization of factories,
- Strong scientific foundation:  
**PhD research, patents, software certificates**
- Local adaptation for  
**Central Asia**, where global competitors are absent



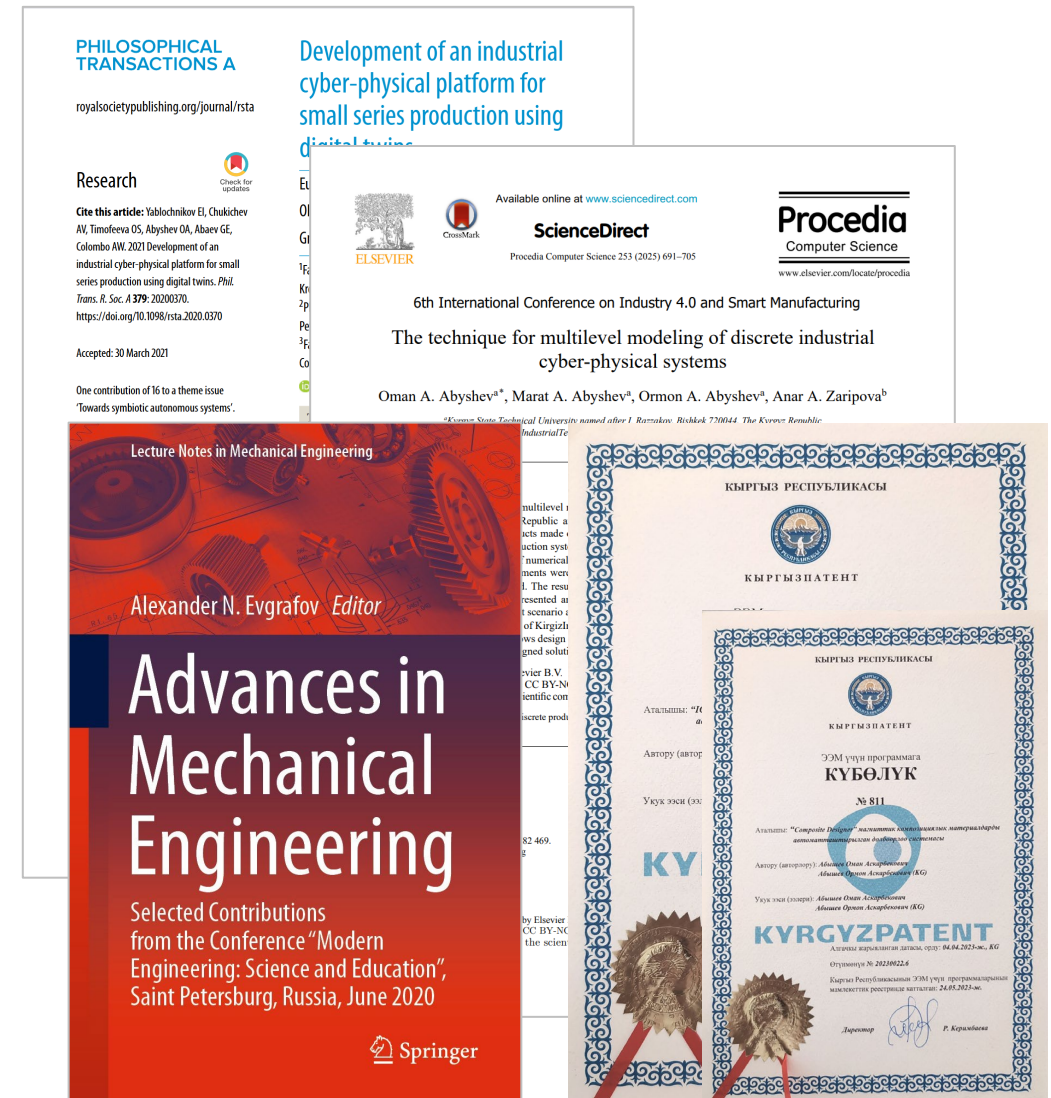
# PhD Background

We developed:

- **Multi-level simulation:** from product → cell → full factory,
- **Industrial agents** integrates heterogeneous legacy equipment,
- **Digital platforms** for Smart Factory design and development

Now, we add **AI**:

- AI algorithms automatically **configure and optimize** factory layouts,
- AI Predictive analytics for machine failures,
- Dynamic optimization of production flows



# Competitors

Criteria	Process Simulator	AnyLogic	FACTORY BUILDER AI
Visual Drag-and-drop Design	✓	✓	✓
Change Scenario Simulation	✓	✓	✓
Flow simulation	✓	✓	✓
Integration with CAD tools	✓	✗	✗
Advanced Analytics	✗	✓	✓
ML predicting bottlenecks	✗	✗	✓
AI assistant	✗	✗	✓
Industrial Cyber-Physical Foundations	✗	✗	✓
Price	\$2,462 – \$3,693	\$12,390 – \$18,990	\$1000 – \$5000

# Business Model

## SaaS-Model

starts from **\$1,000 per month**

Distribution: Direct Sales, Agents

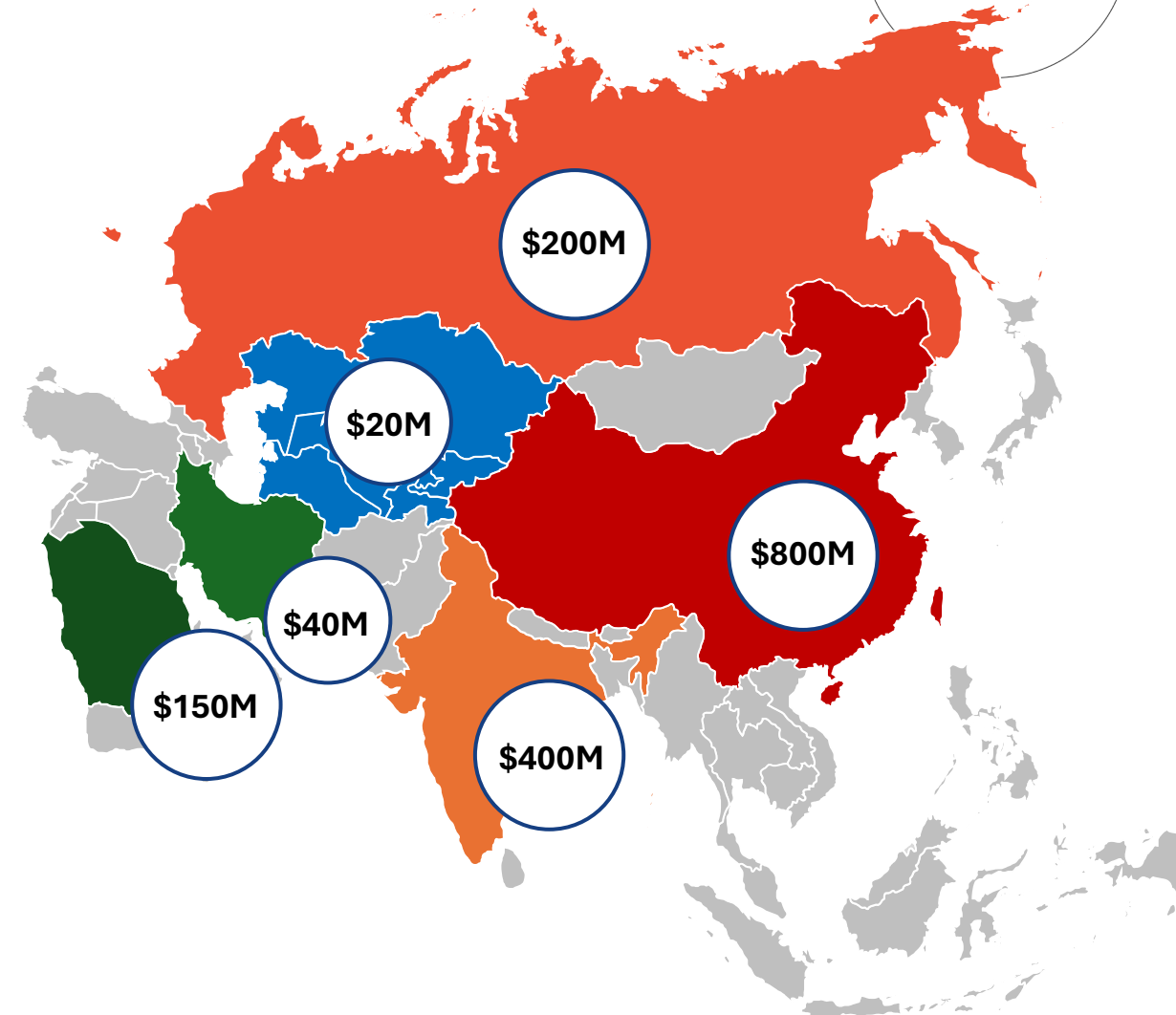
## Enterprise Customization

starts from **\$5,000 per month**

Distribution: Agents, Acceleration

Target customers:

**oil & gas, mining, and manufacturing**  
companies in Central Asia and the CIS.



# Traction & Results

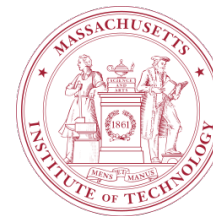
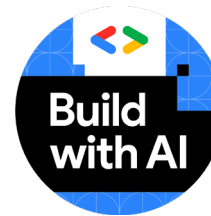
- **MVP** Validated on **7+ Pilots**
- **HTP x MIT DeepTech** Finalist
- **Best Research Work** HTP 2025
- **Best Research Work** KSTU 2023
- **Best Research Work** ITMO 2023
- **International collaboration:**  
Germany, Korea, United States
- **Research Papers** Published (10+)
- **Software Copyright** Secured (2+)



FABLAB  
BISHKEK



MATKASYM



ПОЛИТЕХ  
Санкт-Петербургский  
политехнический университет  
Петра Великого

ITMO

# THE TEAM & OUR COMPETENCIES



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# Real Impact





**Task:** Select the best design alternative for the discrete factory.  
There are 3 design alternative and 3 Production scenarios

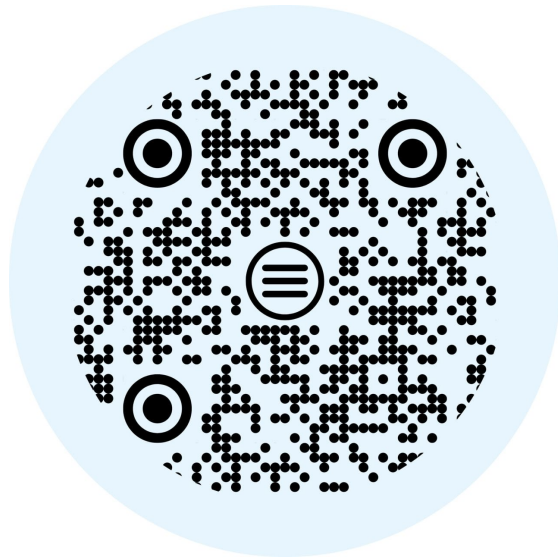


## Results:

With **Factory Builder AI**, FabLab Bishkek gained:

- up to **+40% productivity increase**  ,
- up to **25% faster decision-making & time-to-market** 
- **Scenario Flexibility & Failure Forecasting** 

We help enterprises  
move from **legacy automation**  
to **AI-driven Industry 4.0 world!**



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