

# CHALLENGES IN MANUFACTURING IN 2025

- O SUPPLY CHAIN DISRUPTIONS: MATERIAL SHORTAGES, LOGISTICS DELAYS, AND GEOPOLITICAL RISKS.
- O LABOR SHORTAGES & RISING COSTS: AGING WORKFORCE, LACK OF SKILLED TALENT, AND INCREASING WAGES.
- o Inefficiency & Waste: Traditional manufacturing struggles with slow processes and resource wastage.
- o **Technological Gap:** Many factories **lag in digital transformation** and automation.
- o **Sustainability Pressures:** Stricter **ESG** Compliance and Growing demand for eco-friendly solutions.

#### OUR SOLUTION

- Al-Powered Decision Making: Faster, Data-Driven Choices reduce inefficiencies.
- **END-TO-END AUTOMATION:** ELIMINATES MANUAL BOTTLENECKS IN PRODUCTION, SUPPLY CHAIN, AND LOGISTICS.
- COST OPTIMIZATION: AI SELECTS OPTIMAL SUPPLIERS, REDUCES WASTE, AND IMPROVES EFFICIENCY.
- Workforce Augmentation: Al and robotics fill labor gaps and enhance human productivity.
- Sustainable Manufacturing: Al minimizes energy consumption and optimizes material usage.

#### **HOW IT WORKS**

- •STEP 1: AI-POWERED QUOTATION SYSTEM (FAST, ACCURATE COST ESTIMATES)
- •STEP 2: AUTOMATED PRODUCTION PLANNING (SMART RESOURCE ALLOCATION)
- •STEP 3: OPTIMIZED SUPPLY CHAIN (BEST SUPPLIERS, BEST PRICES)
- •STEP 4: SMART MANUFACTURING EXECUTION (REAL-TIME MONITORING & CONTROL)

## STEP 1: AI-POWERED QUOTATION SYSTEM



Al analyzes past quotes & trends



Selects best suppliers & prices



Calculates labor & material costs



Generates & sends quotes automatically



Al creates adaptive Bill of Materials (BOM)



Generates technical documentation



Allocates machine capacity dynamically



Automates workflow creation

**STEP 2:** 

AUTOMATED PRODUCTION PLANNING

Al finds best suppliers at best prices



Identifies ideal storage locations



Predicts material demand & avoids shortages

#### **STEP 3:**

OPTIMIZED SUPPLY CHAIN

#### **STEP 4:**

### SMART MANUFACTURING EXECUTION

- Al schedules production based on demand
- Monitors execution & machine efficiency (OEE)
- Detects defects & manages maintenance
- Optimizes material usage & waste management

# THE STRENGTH BEHIND ALFA FACTORY





- •Built on Two Industry Leaders
- •ELECTROALFA: A WELL-ESTABLISHED NAME IN MANUFACTURING SINCE THE 1990s, BRINGING DECADES OF EXPERIENCE IN INDUSTRIAL PRODUCTION AND EFFICIENCY.
- •KIM: A PROVEN LEADER IN BUILDING INNOVATIVE SOLUTIONS FOR THE MANUFACTURING SECTOR FOR OVER 12 YEARS, SPECIALIZING IN SMART AUTOMATION AND DIGITAL TRANSFORMATION.

### THANK YOU!



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