



BUSINESS INTELLIGENCE



MANUFACTURING INTELLIGENCE



DATA ANALYTICS & AI



EXECUTIVE DECISION SUPPORT

May 20, 2025

CODE

BI-PMO-2025-05-001

INTELLIGENCE THAT IMPROVES MANUFACTURING PERFORMANCE

We transform your data into actionable insights, predict the future, and empower you to make smarter, faster, and more profitable decisions.

OUR CORE SERVICES



1. EXECUTIVE DASHBOARDS (POWER BI)

Real-time dashboards for CEOs, managers and teams with KPIs, trends and operational insights.



2. DIGITAL REPORTING SYSTEMS

Daily production, maintenance, quality, warehouse and procurement reporting apps.



3. PRODUCTION INTELLIGENCE

Monitor production performance, OEE, downtime, yield, efficiency and line/shift performance.



4. PREDICTIVE ANALYTICS & AI

Forecast production, demand, inventory needs, downtime risks and profitability using AI models.



5. INVENTORY & SUPPLY CHAIN ANALYTICS

Optimize inventory, reduce stockout/overstock risks and track supplier performance.



6. QUALITY INTELLIGENCE

Track defects, rework, scrap and quality KPIs with root cause analytics.



7. COST & PROFITABILITY ANALYTICS

Analyze cost per unit, margins, waste and profitability by product, line and project.



8. AI EXECUTIVE ASSISTANT

Ask questions in natural language and get instant, data-backed answers and forecasts.



9. KPI GOVERNANCE & PERFORMANCE MANAGEMENT

Define KPIs, ownership, targets, and monitoring logic to drive accountability and results.



WHAT WE HELP YOU ACHIEVE



Real-time Visibility of Operations



Better Quality & Less Waste



Higher Productivity & Efficiency



Accurate Forecasting & Planning



Lower Downtime & Maintenance Cost



Faster, Data-Driven Decision-Making



Optimized Inventory & Supply Chain



Stronger Profitability & Competitiveness

SAMPLE DASHBOARD INSIGHTS

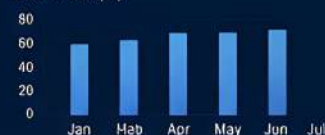
Production Efficiency (%)



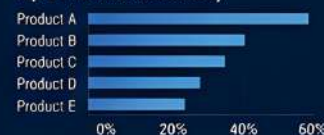
Downtime Analysis (Hours)



OEE Trend (%)



Top 5 Product Profitability



Inventory Turnover



Defect Rate (%)



PARTNER WITH US



REDUCED OPERATIONAL RISKS



BETTER COST CONTROL



FASTER DECISIONS



HIGHER PREDICTABILITY



SUSTAINABLE GROWTH



Apt. 7, Floor 7, 16 Kievyan St,
Yerevan 0028, Armenia



+374 98 1000 85



businessintelligenceam@gmail.com



www.businessintelligence.am





Data as of: 10:30 AM



Date May 28, 2025

Plant All

Shift All



OVERVIEW

CORE METRICS



Production



Downtime



Quality



OEE



Workforce

SMART INSIGHTS



Alerts



Reports

SYSTEM



Settings

TODAY'S SUMMARY

Production is above target by 7.13% with a strong yield rate of 96.2%. Total downtime is reduced by 21.8% compared to yesterday. Focus on Line 3 efficiency and material shortage risk mitigation.



TOTAL OUTPUT (Units)

128,560

vs target 120,000

▲ 7.13%



PRODUCTION EFFICIENCY

89.6%

vs target 85.0%

▲ 4.6%



YIELD RATE

96.2%

vs target 95.0%

▲ 1.26%



TOTAL DOWNTIME

4h 32m

vs yesterday 5h 47m

▼ 21.8%



OEE

78.4%

vs target 75.0%

▲ 4.5%



DEFECT RATE

1.35%

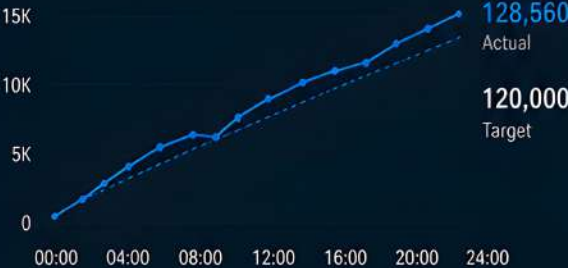
vs target 2.00%

▼ 0.65%



OUTPUT OVER TIME (Units)

● Actual Output -- Target Output



OUTPUT BY PRODUCTION LINE

Line	Actual (Units)	Target (Units)	Achievement
Line 1	28,450	30,000	94.8%
Line 2	25,870	26,000	99.5%
Line 3	18,760	20,000	93.8%
Line 4	32,480	30,000	108.3%
Line 5	23,000	24,000	95.8%

DOWNTIME BY CATEGORY



OEE TREND OVER TIME

● OEE (%) -- Target (%)



DOWNTIME BY PRODUCTION LINE (h)



QUALITY OVERVIEW



SHIFT PERFORMANCE (Units)

Shift	Actual Output	Target Output	Achievement
Shift A (06:00 - 14:00)	45,320	42,000	107.9%
Shift B (14:00 - 22:00)	48,760	44,000	110.8%
Shift C (22:00 - 06:00)	34,480	34,000	101.4%

TOP 5 DOWNTIME EVENTS

Event	Line	Duration	Impact (Units)
Motor Overload	Line 1	32m	1,250
Changeover	Line 3	28m	980
Conveyor Jam	Line 2	25m	860
Sensor Failure	Line 4	23m	780
Material Shortage	Line 5	20m	650

ALERTS & NOTIFICATIONS

⚠️ Line 3 efficiency below 90%	10:15 AM
⚠️ High downtime detected on Line 1	10:05 AM
⚠️ Material shortage risk: Component A	09:50 AM
⚠️ Defect rate above target on Line 2	09:35 AM



REAL-TIME VISIBILITY
into factory operations



DATA-DRIVEN DECISIONS
with accurate insights



IMPROVED PERFORMANCE
across all production lines



REDUCED DOWNTIME
& operational waste



HIGHER QUALITY
& customer satisfaction



Apt. 7, Floor 7, 16 Kievyan St,
Yerevan 0028, Armenia



+374 98 1000 85



www.businessintelligence.am



Date May 28, 2025 Plant All Department All Line All Shift All

- REPORTING OVERVIEW
- DIGITAL SHIFT REPORTS
- DATA SUBMISSIONS
- DATA QUALITY
- AUTOMATION BENEFITS
- TIME SAVINGS
- TREND ANALYSIS
- ALERTS
- USERS & ACTIVITY
- SETTINGS



DIGITAL SHIFT REPORT SUMMARY (This Month)

Date	Shift	Line	Operator	Reports	On-Time	Accuracy	Status
May 28, 2025	Morning	Line 1	Arman M.	22	100%	98.6%	Complete
May 28, 2025	Morning	Line 2	Karen A.	21	100%	97.8%	Complete
May 28, 2025	Morning	Line 3	Tigran H.	20	95%	97.1%	Complete
May 28, 2025	Evening	Line 1	David S.	22	100%	99.2%	Complete
May 28, 2025	Evening	Line 2	Vahagn G.	21	95%	98.0%	Complete
May 28, 2025	Evening	Line 3	Mher P.	20	90%	96.5%	Late
May 28, 2025	Night	Line 1	Ashot B.	21	100%	98.7%	Complete
May 28, 2025	Night	Line 2	Levon T.	20	95%	97.0%	Complete
May 28, 2025	Night	Line 3	Gagik K.	20	90%	95.3%	Late
Total				187	97.2%	98.4%	



AUTOMATION IMPACT

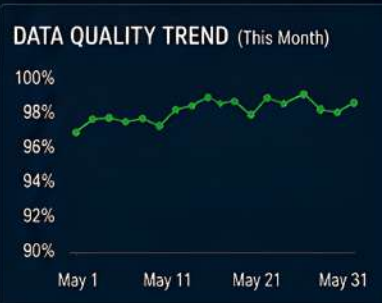
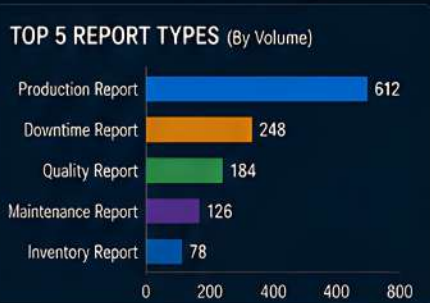
52.5 h

Saved This Month vs Manual Process

Estimated Annual Savings

630 - 1,470 hours

based on 30-70 hours saved per month.



ELIMINATE MANUAL REPORTING. SAVE TIME. IMPROVE ACCURACY.

BEFORE (Manual Process)	AFTER (Automated Process)
- Manual data entry - Excel consolidation - Email-based reporting - High error rate - Delayed information 30 - 70 hours / month spent on manual consolidation	- Digital data collection - Real-time dashboard updates - Automated validation - Consistent and accurate data - Instant visibility for management 0 - 5 hours / month spent on supervision & analysis

ESCALATED ALERTS FROM REPORTS (This Month)

Alert	Line / Department	Triggered On	Status
Defect Rate Exceeded	Line 2	May 28, 09:15	Open
Downtime Exceeded	Line 1	May 28, 10:32	Open
Missing Shift Report	Line 3 (Night)	May 28, 08:05	Open
Quality Issue Detected	Line 2	May 28, 14:22	In Progress
Inventory Discrepancy	Warehouse	May 28, 16:45	Resolved

- SAVE 30-70 HOURS**
Eliminate manual report consolidation.
- IMPROVE ACCURACY**
Validated data ensures reliable decisions.
- REAL-TIME VISIBILITY**
Dashboards update instantly.
- FAST ACTIONS**
Alerts ensure issues are caught early.
- BETTER DECISIONS**
Accurate information leads to better outcomes.



KPI Overview

KPI Catalog

Ownership Map

Escalations

Actions Tracker

Trend Analysis

Alerts Center

Reports

Settings

KPI Insight

2 KPIs are currently breached and require immediate attention.

Defect Rate and On-Time Delivery are below the defined thresholds.

7 alerts have been escalated based on predefined rules.

Please review actions and update status.

OVERALL KPI PERFORMANCE SCORE

87%
Good

vs Target: +7% ▲

KPIs ON TARGET

16
of 24

vs Last Month: +2 ▲

KPIs AT RISK

6
of 24

vs Last Month: -1 ▼

KPIs BREACHED

2
of 24

vs Last Month: +1 ▲

ESCALATED ALERTS

7
Active

vs Last Month: +3 ▲

ACTIONS COMPLETED

14
This Month

vs Last Month: +5 ▲

KPI GOVERNANCE OVERVIEW

KPI Name	Owner	Target	Actual	Status	vs Target	Trend (30D)	Escalation Rule	Next Action
Production Efficiency	Production Manager	85%	88%	Good	+3% ▲		< 85%	Monitor
Overall Equipment Effectiveness (OEE)	Maintenance Manager	80%	81%	Good	+1% ▲		< 80%	Monitor
Defect Rate	Quality Manager	2.0%	3.4%	Breached	+1.4% ▲		> 2.0%	Immediate Action
On-Time Delivery	Supply Chain Manager	95%	91%	At Risk	-4% ▼		< 95%	Investigate
Inventory Turnover	Supply Chain Manager	6.0	5.2	At Risk	-0.8 ▼		< 6.0	Optimize
Cost per Unit	Finance Manager	\$12.50	\$11.80	Good	-0.70 ▼		> \$12.50	Monitor
Waste Cost %	Production Manager	3.0%	2.6%	Good	-0.4% ▼		> 3.0%	Monitor
Downtime (Unplanned)	Maintenance Manager	5.0%	6.8%	Breached	+1.8% ▲		> 5.0%	Immediate Action

ESCALATED ALERTS (Active)

Alert ID	KPI	Owner	Severity	Triggered On	Duration	Status
AL-2025-071	Defect Rate	Quality Manager	High	May 28, 2025	2 days	Open
AL-2025-069	On-Time Delivery	Supply Chain Manager	Medium	May 27, 2025	3 days	Open
AL-2025-065	Downtime (Unplanned)	Maintenance Manager	High	May 26, 2025	4 days	Open
AL-2025-060	Inventory Turnover	Supply Chain Manager	Medium	May 25, 2025	5 days	Open
AL-2025-054	Defect Rate	Quality Manager	High	May 24, 2025	6 days	In Progress

7
Total Alerts

2
High Severity

3
Medium Severity

2
In Progress

KPI STATUS DISTRIBUTION

24
Total KPIs

Good 16 (67%)

At Risk 6 (25%)

Breached 2 (8%)

ACTIONS TRACKER (This Month)

14
Total Actions

7
Completed

5
In Progress

2
Overdue

Action ID	Related KPI	Owner	Priority	Due Date	Status
AC-2025-128	Defect Rate	Quality Manager	High	May 30, 2025	In Progress
AC-2025-126	On-Time Delivery	Supply Chain Manager	Medium	May 31, 2025	In Progress
AC-2025-123	Downtime (Unplanned)	Maintenance Manager	High	May 29, 2025	Open
AC-2025-121	Inventory Turnover	Supply Chain Manager	Medium	Jun 02, 2025	Open
AC-2025-118	Defect Rate	Quality Manager	High	May 27, 2025	Completed

View All Actions ➔

ESCALATIONS BY DEPARTMENT

Number of Escalations

RECOMMENDED ACTIONS (Escalation Logic Based)

Defect Rate Exceeded Threshold

Actual: 3.4% Threshold: > 2.0%

Owner: Quality Manager

Action: Immediate root cause analysis and corrective action.

On-Time Delivery Below Target

Actual: 91% Threshold: < 95%

Owner: Supply Chain Manager

Action: Review supplier performance and logistics plan.

Unplanned Downtime High

Actual: 6.8% Threshold: > 5.0%

Owner: Maintenance Manager

Action: Schedule preventive maintenance and equipment check.

Inventory Turnover Low

Actual: 5.2 Threshold: < 6.0

Owner: Supply Chain Manager

Action: Optimize stock levels and slow-moving items.

Apt. 7, Floor 7, 16 Kievyan St,
Yerevan 0028, Armenia

+374 98 1000 85

businessintelligenceam@gmail.com

businessintelligence.am



Date May 28, 2025

Plant All

Line All

Equipment Type All

Horizon Next 30 Days

OVERVIEW

EQUIPMENT RISK

PREDICTIONS

CONDITION MONITORING

MAINTENANCE PLAN

WORK ORDERS

COST IMPACT

ALERTS

REPORTS

SETTINGS

MAINTENANCE STRATEGY

From After-Breakdown

To Before-Breakdown

REACTIVE
(After Breakdown)

PREDICTIVE
(Before Breakdown)

ASSETS MONITORED

128

Machines

vs Last Month ▲ 8



HIGH RISK ASSETS

14

(10.9%)

vs Last Month ▲ 3



MEDIUM RISK ASSETS

32

(25.0%)

vs Last Month ▼ -2



LOW RISK ASSETS

82

(64.1%)

vs Last Month ▼ -1



PREDICTED FAILURES (Next 30 Days)

19

vs Last Month ▼ -4



DOWNTIME AVERTED (This Month)

56.2h

vs Last Month ▲ 12.4h

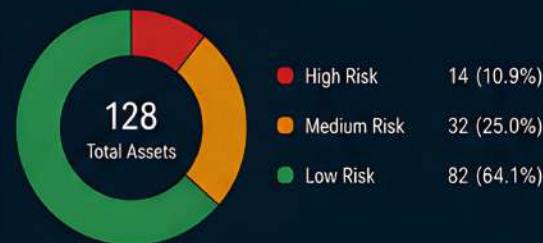


EQUIPMENT RISK SCORES (Next 30 Days)

Equipment ID	Equipment Name	Line	Risk Score (0-100)	Risk Level	Failure Prob. (%)	Predicted Failure Within
PR-01	Press Machine #1	Line 1	92	High	78%	5 days
CN-02	CNC Machine #2	Line 2	87	High	65%	7 days
MT-07	Motor Drive #7	Line 4	76	High	61%	9 days
HY-01	Hydraulic Press #1	Line 1	68	Medium	45%	12 days
CV-02	Conveyor System #2	Line 3	55	Medium	34%	15 days
SN-05	Sensor Unit #5	Line 2	42	Medium	27%	18 days
PR-03	Press Machine #3	Line 1	31	Low	16%	21 days
CN-08	CNC Machine #8	Line 2	28	Low	14%	> 30 days
CH-01	Changeover Unit #1	Line 4	22	Low	9%	> 30 days
MT-02	Motor Drive #2	Line 3	18	Low	6%	> 30 days

[View All Assets](#)

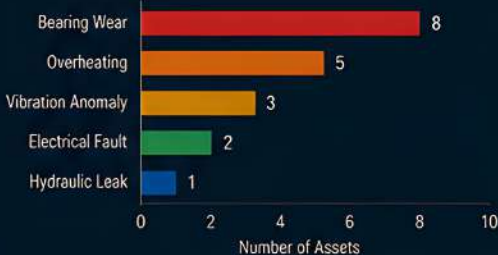
RISK LEVEL DISTRIBUTION



PREDICTED FAILURES OVER TIME (Next 30 Days)



TOP 5 FAILURE MODES (By Prediction)



RISK SCORE TREND (30 Days)



DOWNTIME IMPACT (This Month)



RECOMMENDED MAINTENANCE ACTIONS

Equipment ID	Equipment Name	Risk Score	Recommended Action	Recommended Date	Priority	Est. Downtime
PR-01	Press Machine #1	92	Inspect bearings and replace if worn	May 30, 2025	High	\$1,240
CN-02	CNC Machine #2	87	Check spindle vibration and alignment	Jun 1, 2025	High	\$980
MT-07	Motor Drive #7	76	Check motor temperature & cooling	Jun 3, 2025	High	\$760
HY-01	Hydraulic Press #1	68	Inspect hydraulic system and seals	Jun 5, 2025	Medium	3.0 h
CV-02	Conveyor System #2	55	Lubricate conveyor bearings	Jun 8, 2025	Medium	\$210

MAINTENANCE COST COMPARISON (Yearly Projection)



CONDITION MONITORING SUMMARY



All conditions are within normal thresholds for most assets.

ALERTS & NOTIFICATIONS

- High risk detected: Press Machine #1 (Risk Score: 92) 09:15 AM
- Predicted failure in 5 days: CNC Machine #2 09:18 AM
- Vibration anomaly: Motor Drive #7 09:25 AM
- Hydraulic pressure fluctuation: Hydraulic Press #1 09:30 AM

[View All Alerts](#)

PREDICTIVE MODEL PERFORMANCE





Date

May 28, 2025

Plant

All

Line

All

Horizon

Next 30 Days



AI OVERVIEW



RISK PREDICTIONS



DOWNTIME FORECAST



INVENTORY FORECAST



DEMAND FORECAST



RECOMMENDATIONS



SCENARIO ANALYSIS



REPORTS



SETTINGS



AI INSIGHT

Line 3 has the highest risk of delay this month at 72%.

Motor Overload and Sensor Failure are the top contributors.

Material "Component A" is projected to be short by 12,450 units in July 2025.



OVERALL DELAY RISK
(Next 30 Days)

47%

High

vs last 30 days ▲ 8%



DOWNTIME RISK
(Next 30 Days)

39%

Medium

vs last 30 days ▲ 6%



MATERIAL SHORTAGE RISK
(Next 90 Days)

32%

Medium

vs last 90 days ▲ 7%



DEMAND VARIANCE
(Next 30 Days)

-6.4%

vs forecast ▼ -1.2%



PREDICTIVE ACCURACY
(Models)

92.3%

vs last 30 days ▲ 2.6%



DELAY RISK BY PRODUCTION LINE (Next 30 Days)

Line	Delay Risk (%)	Risk Level	Trend (7D)	Top Risk Driver
Line 3	72%	High		Motor Overload
Line 2	48%	Medium		Changeover Time
Line 4	36%	Medium		Sensor Failure
Line 1	25%	Low		Minor Stops
Line 5	18%	Low		Material Waiting

DOWNTIME PROBABILITY BY EQUIPMENT (Top 5)

Equipment	Line	Downtime Probability	Risk Level
Press Machine #3	Line 3	78%	High
CNC Machine #8	Line 2	54%	Medium
Conveyor System #2	Line 3	46%	Medium
Motor Drive #7	Line 4	34%	Medium
Hydraulic Press #1	Line 1	22%	Low

PREDICTED DOWNTIME (Next 30 Days)



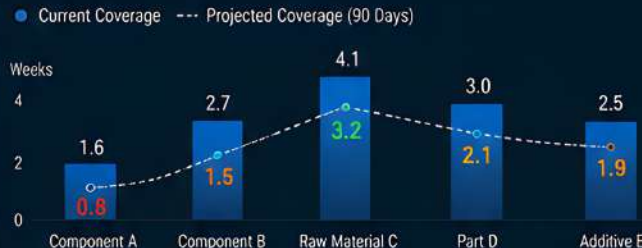
DOWNTIME DRIVERS CONTRIBUTION (AI Analysis)



MATERIAL SHORTAGE FORECAST (Next 90 Days)

Material	Current Stock	Projected Demand	Projected Shortage	Risk Level
Component A	8,250	20,700	12,450	High
Component B	15,800	24,300	8,500	Medium
Raw Material C	32,400	35,600	3,200	Low
Part D	12,100	14,300	2,200	Low
Additive E	5,600	6,100	500	Low

INVENTORY COVERAGE FORECAST (Weeks)



DEMAND FORECAST (Next 30 Days)



PREDICTED OUTPUT VS TARGET



AI RECOMMENDATIONS

- Schedule maintenance for Press Machine #3 within the next 5 days.
- Reduce changeover time on Line 2 by optimizing setup process.
- Increase safety stock for Component A by 12,450 units.
- Monitor Motor Drive #7 temperature closely.
- Review production plan for next week to balance capacity.

WHAT-IF SCENARIO ANALYSIS

Scenario	Delay Risk	Downtime (h)	Output Impact
Current Plan	47%	168	-6.4%
Add Overtime	32%	112	-2.1%
Preventive Maint.	26%	86	-1.3%
Add Shift (Weekends)	21%	72	+0.8%



ALERTS & NOTIFICATIONS

- High delay risk detected on Line 3 10:15 AM
- Material shortage risk: Component A 09:50 AM
- Press Machine #3 downtime risk 78% 09:30 AM
- Forecast variance exceeded threshold 09:10 AM



PREDICT RISKS
before they happen



PREVENT DOWNTIME
and reduce losses



OPTIMIZE INVENTORY
& avoid shortages



IMPROVE PLANNING
with accurate forecasts



SMARTER DECISIONS
with AI-powered insights



Apt. 7, Floor 7, 16 Kievyan St,
Yerevan 0028, Armenia



+374 98 1000 85



www.businessintelligence.am