

OPERATIONAL INTELLIGENCE: PRODUCT PERFORMANCE, YIELD & REVENUE IMPACT

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EXECUTIVE PRODUCT PERFORMANCE OVERVIEW



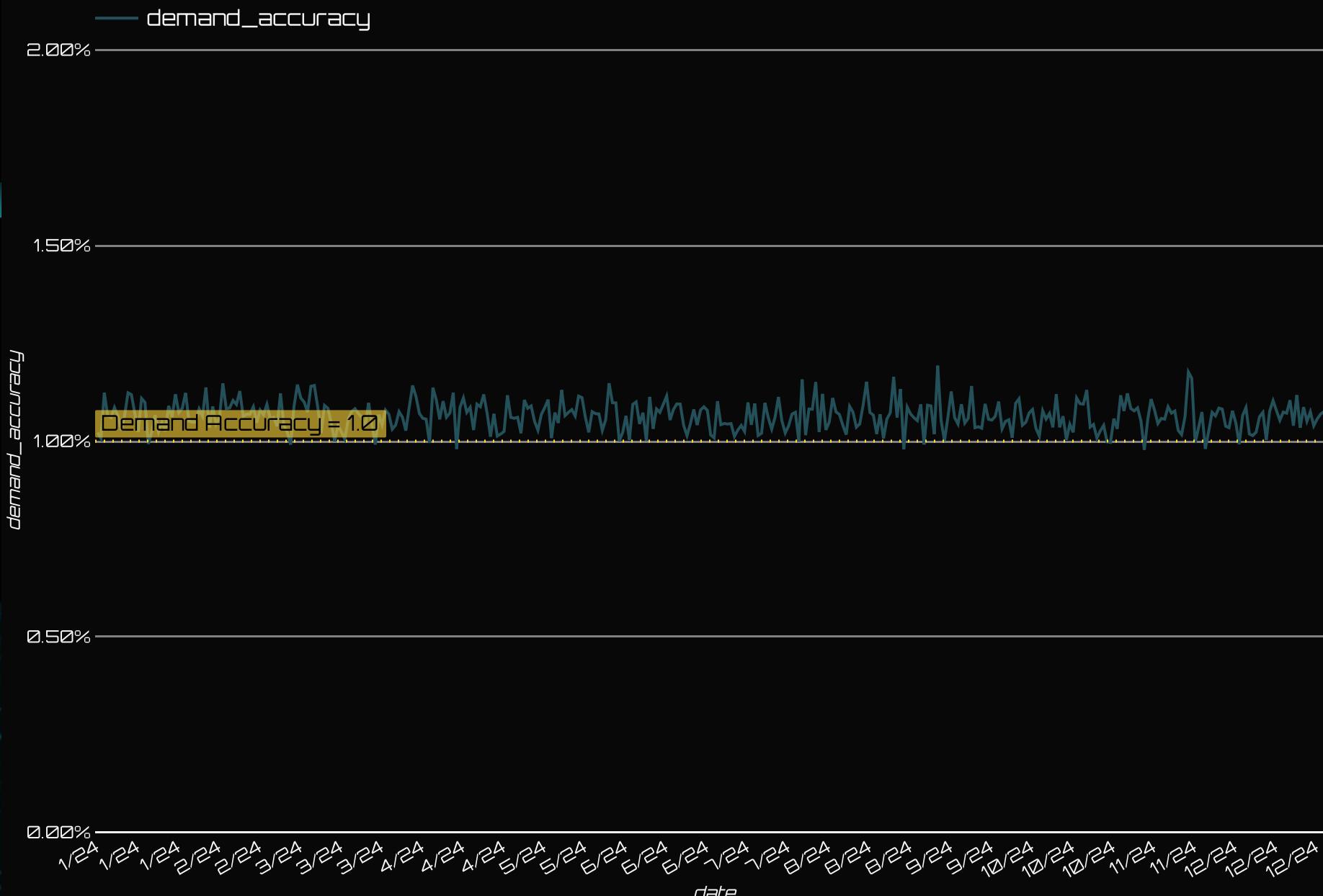
Are revenue, quality, and demand signals aligned—or drifting in ways that create downstream risk?

The Executive KPI Scorecard

Provides an immediate overview of system-wide health, highlighting total revenue, average demand accuracy, yield percentage, defect rate, and total units produced for quick executive insights.

Total Revenue (USD)	Average Demand Accuracy	Average Yield %	Average Defect Rate	Total Units Produced
\$82.36B	1.06%	0.92%	0.04%	91,261,904

Demand Accuracy Over Time



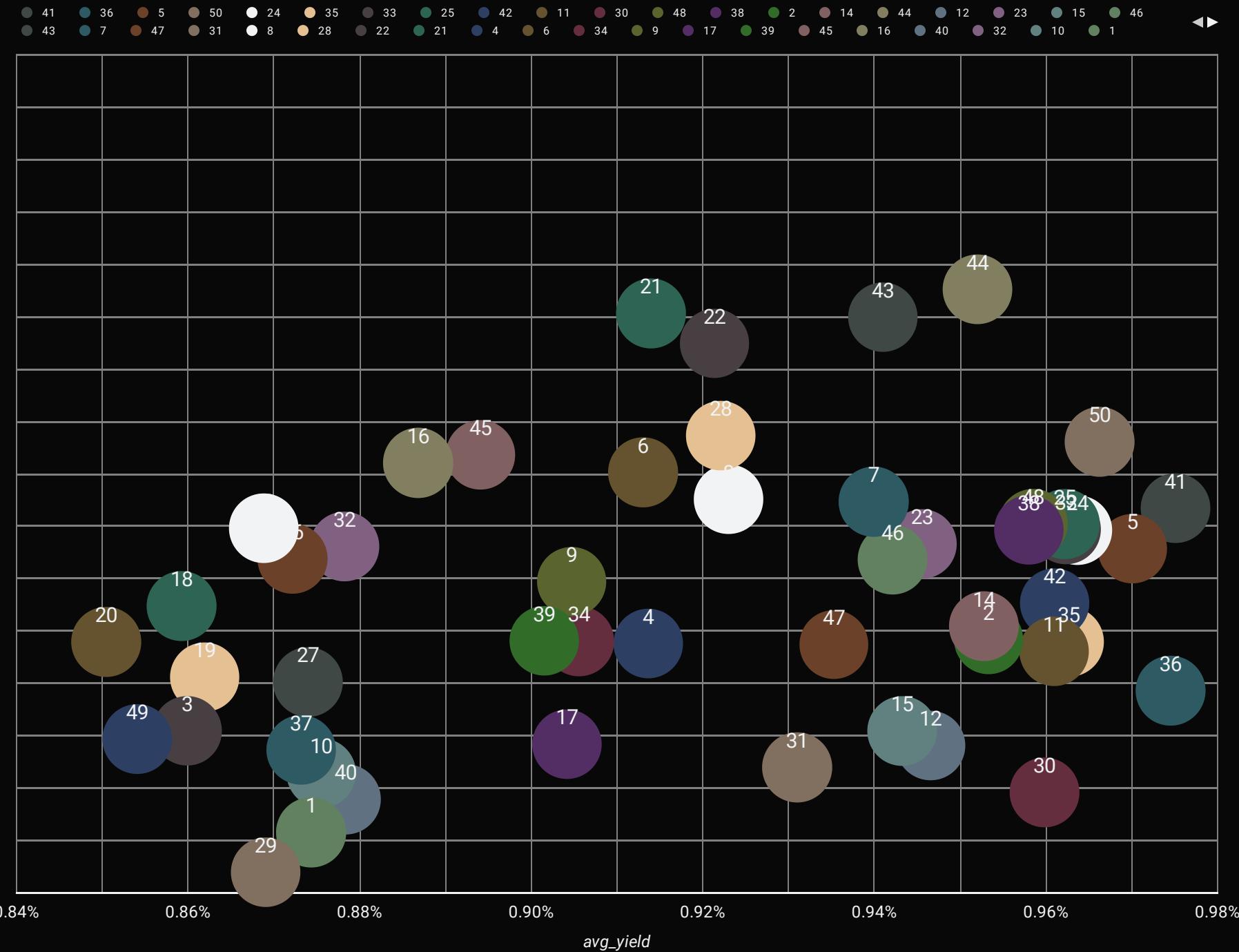
MANUFACTURING QUALITY & YIELD RISK



Which products combine high production volume with elevated quality risk—and therefore deserve immediate attention?

This Scatter Plot of Yield % vs. Defect Rate by Product
Identifies products with structural manufacturing or quality issues, with bubble size indicating the total units produced to highlight high-impact risks.

Yield % vs Defect Rate by Product



PRODUCTION SCALE & REVENUE IMPACT

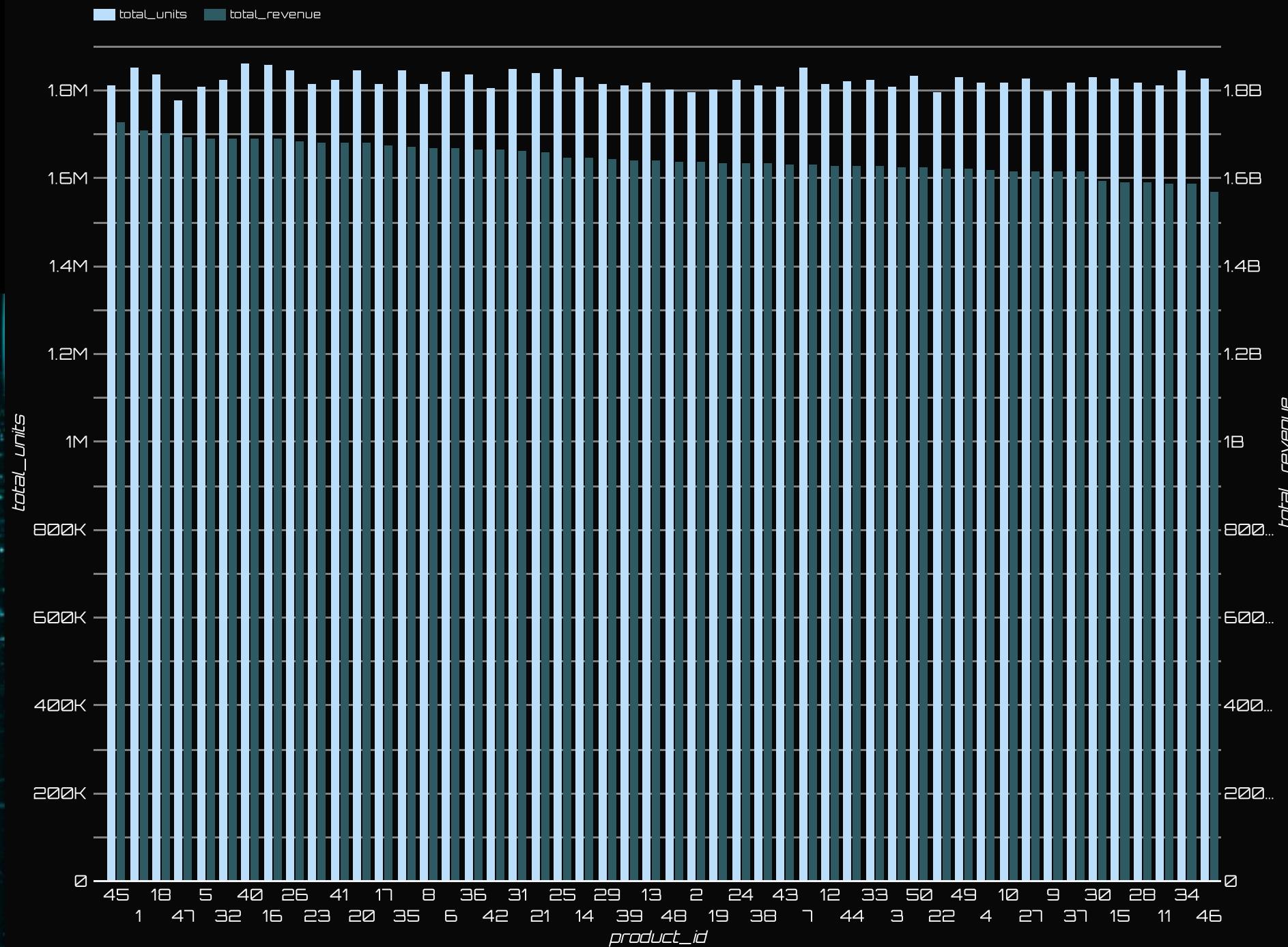


Are we allocating production capacity toward the products that actually drive revenue?

The Units Produced vs. Revenue by Product bar chart

Distinguishes high-volume production from high-value production, preventing capacity misallocation to low-ROI products and highlighting top revenue drivers.

Units Produced vs Revenue by Product



SYSTEM PERFORMANCE & SCALABILITY

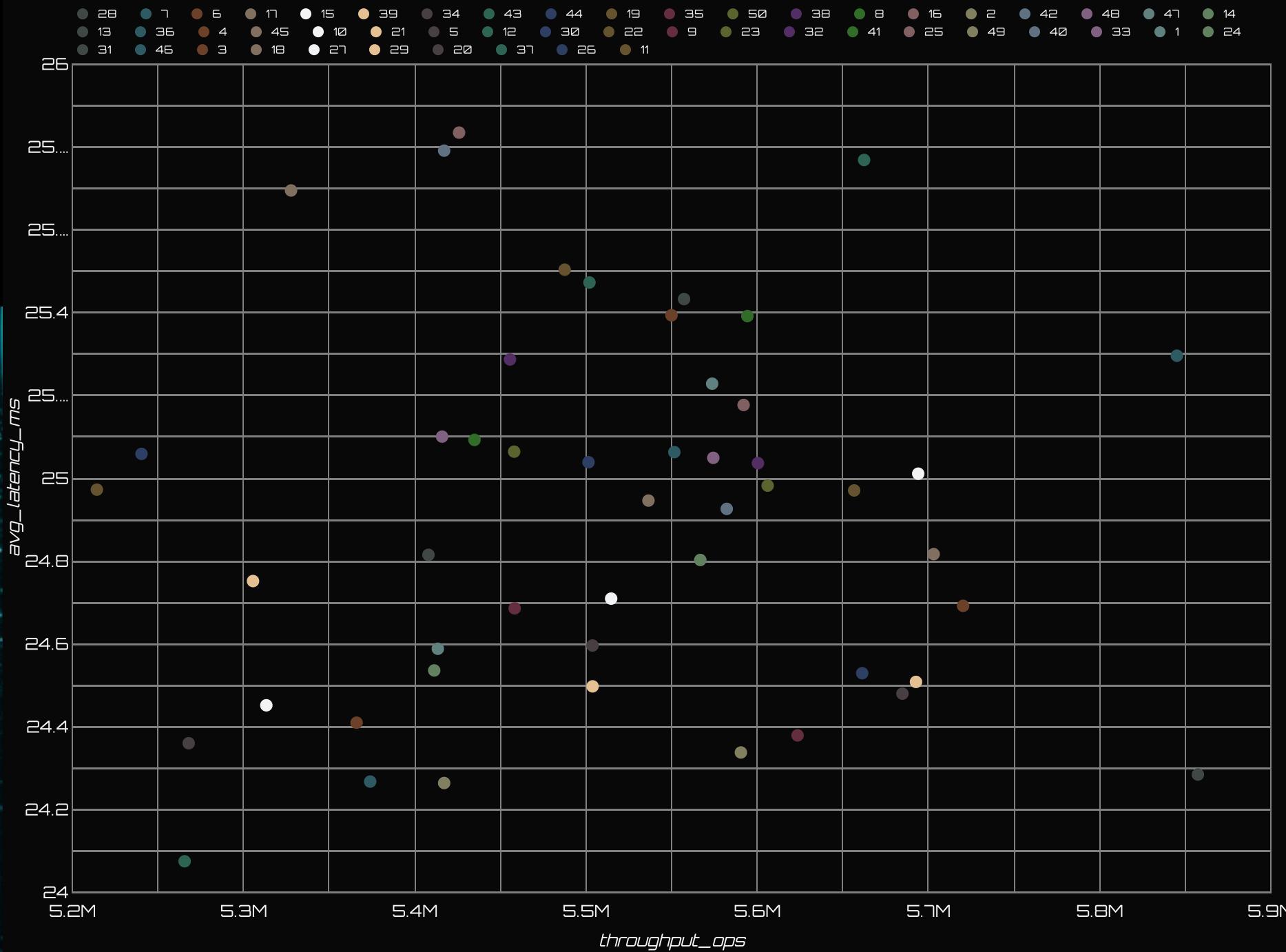


Is system performance consistently supporting production needs, or are hidden inefficiencies emerging?

This Throughput vs. Latency Scatter Plot

Helps detect infrastructure or pipeline inefficiencies, revealing products that may be experiencing performance bottlenecks before they impact revenue significantly.

Throughput vs Latency



PRODUCT RANKING & INSIGHTS

Which specific products present the highest combined quality, scale, and financial impact?



The Product Performance Diagnostic Table

Provides a detailed, sortable view of key performance metrics by product, serving as an operational hand-off point for teams to investigate and act on specific product issues.

Product Performance Diagnostic

	product_id	avg_demand_accuracy	avg_yield	avg_defect_rate	avg_throughput_over_24h	avg_latency_ms	total_units	total_revenue
1.	25	1.07%	0.96%	0.05%	5,425,873.91	25.83	1,849,879	\$1,647,039,997....
2.	40	1.04%	0.88%	0.04%	5,417,160.86	25.79	1,862,142	\$1,691,577,058....
3.	43	1.06%	0.94%	0.05%	5,662,449.42	25.77	1,810,899	\$1,633,975,943....
4.	18	1.03%	0.86%	0.04%	5,327,751.52	25.7	1,839,272	\$1,702,982,736....
5.	22	1.05%	0.92%	0.05%	5,487,572.91	25.5	1,798,365	\$1,624,680,008....
6.	12	1.08%	0.95%	0.04%	5,502,037.89	25.47	1,815,376	\$1,630,582,138....
7.	13	1.07%	0.87%	0.05%	5,557,280.38	25.43	1,819,586	\$1,642,002,257....
8.	4	1.09%	0.91%	0.04%	5,549,939.29	25.39	1,818,516	\$1,620,890,263....
9.	8	1.07%	0.92%	0.05%	5,594,271.35	25.39	1,817,197	\$1,669,289,128.2
1...	7	1.04%	0.94%	0.05%	5,845,117.22	25.3	1,853,555	\$1,633,767,755....
1...	32	1.08%	0.88%	0.05%	5,455,618.36	25.29	1,824,016	\$1,691,842,162....
1...	47	1.07%	0.94%	0.04%	5,573,693.2	25.23	1,779,908	\$1,695,150,448....
1...	16	1.06%	0.89%	0.05%	5,592,058.93	25.18	1,859,680	\$1,691,519,857....
1...	33	1.05%	0.96%	0.05%	5,415,965.15	25.1	1,825,918	\$1,629,131,438....
1...	41	1.04%	0.98%	0.05%	5,434,884.11	25.09	1,824,279	\$1,683,019,151.8
1...	23	1.07%	0.95%	0.05%	5,458,044.71	25.06	1,815,763	\$1,683,719,749....
1...	36	1.07%	0.97%	0.04%	5,551,599.68	25.06	1,838,240	\$1,667,940,486....
1...	26	1.03%	0.87%	0.05%	5,240,410.54	25.06	1,847,652	\$1,683,958,703....
1...	48	1.06%	0.96%	0.05%	5,574,344.6	25.05	1,804,022	\$1,639,458,376....
2...	30	1.05%	0.96%	0.04%	5,501,475.92	25.04	1,832,310	\$1,595,229,821.5
2...	38	1.05%	0.96%	0.05%	5,600,435.68	25.04	1,812,131	\$1,634,378,790....
2...	15	1.06%	0.94%	0.04%	5,694,057.27	25.01	1,827,826	\$1,592,995,503....
2	50	1.09%	0.97%	0.05%	5,606,119.33	24.98	1,836,185	\$1,626,780,455

EXECUTIVE SUMMARY & RECOMMENDED ACTIONS

Section 1: What We Know

- Total revenue of **\$82.36B** was generated from **91.26M** units produced
- Average demand accuracy of **1.0646** indicates systematic under-forecasting
- Average yield (**0.9194**) and defect rate (**0.0448**) are acceptable at an aggregate level
- Product-level analysis reveals material variation masked by averages

Section 2: Where Risk Concentrates

- Products **44, 21, 43, 22**, and **28** exhibit the highest defect rates
- These products also contribute meaningful production volume and revenue
- Quality risk here is financially material, not theoretical

Section 3: What Is Not a Current Risk

- Throughput vs latency analysis shows no major system-wide bottlenecks
- Performance metrics cluster tightly, suggesting stable infrastructure
- Optimization opportunities exist, but no urgent scalability threat is evident

Section 4: Recommended Actions

1. Prioritize quality interventions for Products **44, 21, 43, 22**, and **28**
 - Use the Diagnostic Table as the operational hand-off artifact
2. Refine demand forecasting models
 - Focus on periods and products where demand accuracy deviates most from **1.0**
3. Protect high-revenue products (**45, 1, 18, 47, 5**)
 - Ensure quality and capacity remain stable for these revenue anchors
4. Institutionalize monitoring
 - Use this dashboard for continuous tracking and early-warning detection



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