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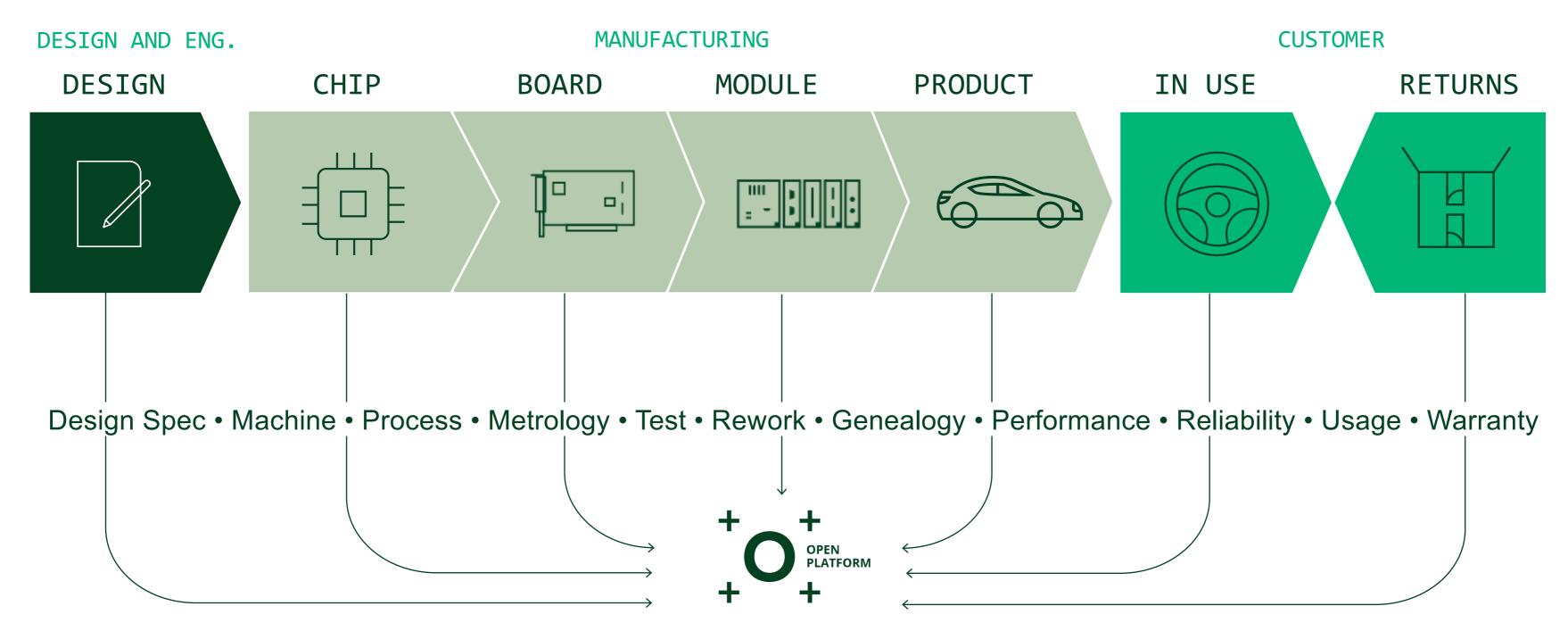
National Instruments

is now NI.



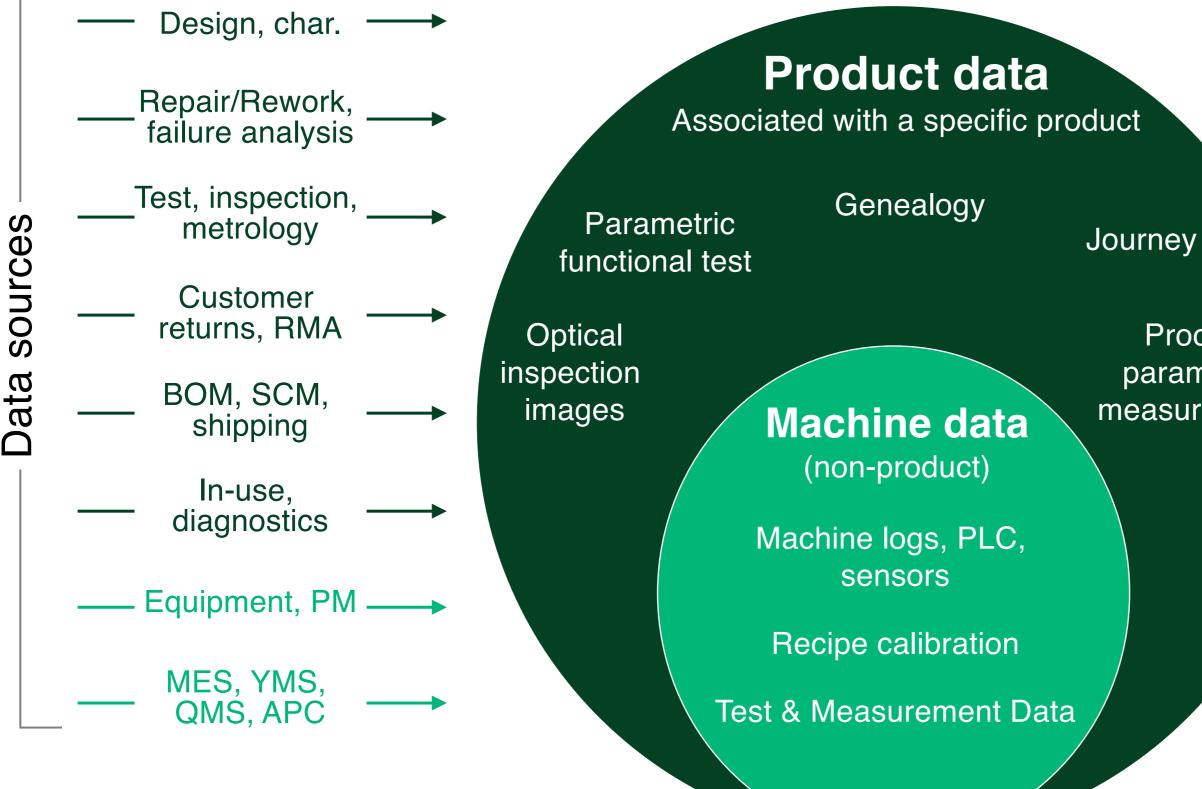
Our Vision

Lifecycle Analytics Through Product-Centric Approach



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Product-Centric Approach to Advanced Analytics



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Benefits

Reliability Safety Quality Performance Consistency

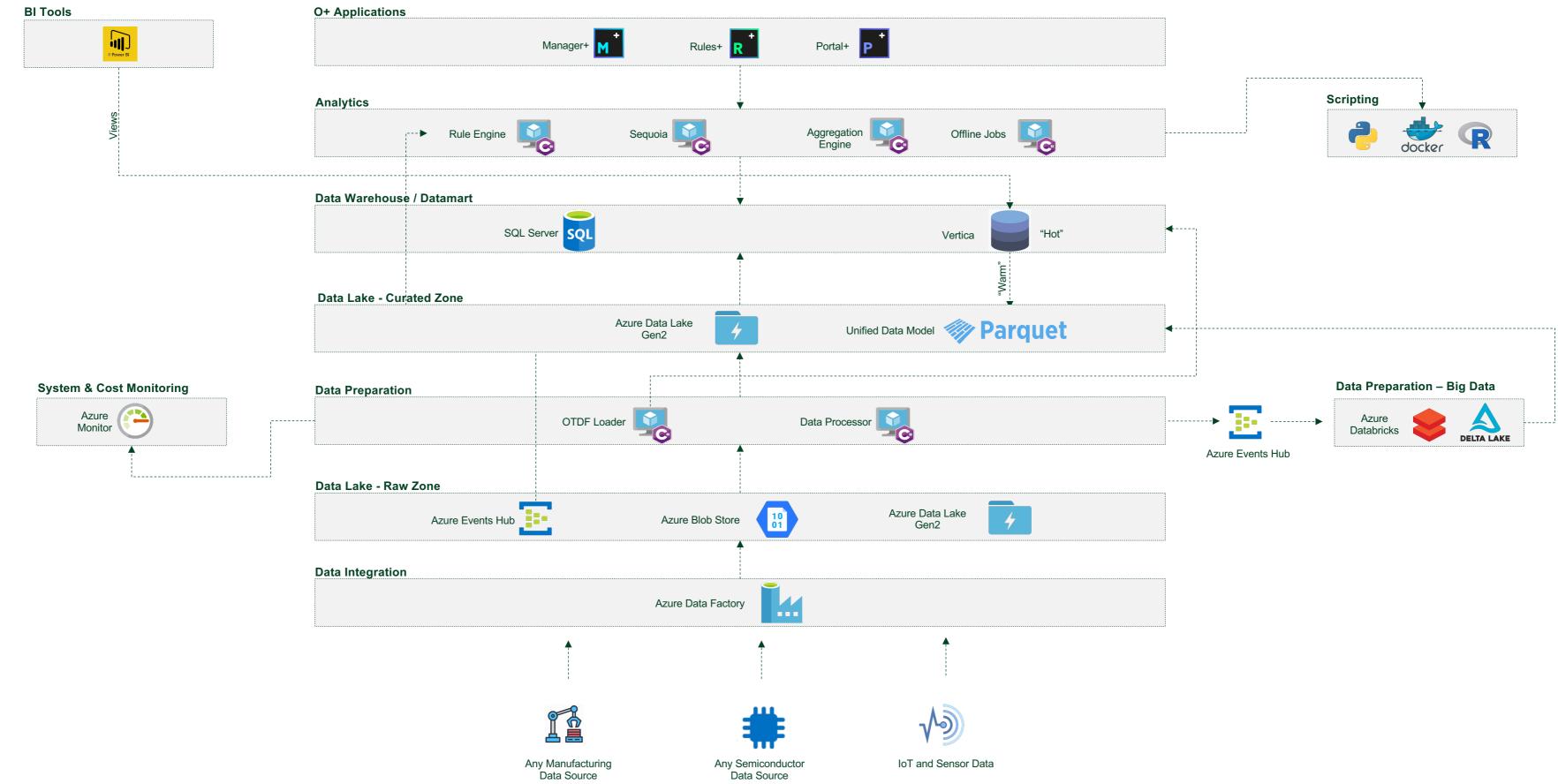
Predictive maintenance Utilization Efficiency **Availability**

Process parametric measurements

Equipment-centric

Product-centric

N Detailed Architecture



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NI Analytics for Transportation on Microsoft Azure

Run NI's industry-leading analytics solutions for the Transportation industry on Microsoft Azure and benefit from tight integration with your other Azure-based investments and lower cloud costs.

Transportation Solutions

Drive better efficiency, reliability and quality in manufacturing with the Product Lifecycle Analytics solution

Analytics for YOUR Business

Embed powerful analytics, designed specifically for the automotive industry, into your manufacturing operations

Self-service Analytics using Power BI

Use Microsoft's PowerBI self-service analytics to visualize data and insights created by the NI solutions



Trusted By Leading Brands







Customer use case: Operational yield – Site issue



With no monitoring – Site-Site issue not detected – This case is 16 lots

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Device: Network

Problem: Yield loss

Issue: Yield by tester varies

Customer use case: Lot dispositioning – Structured web analysis flows

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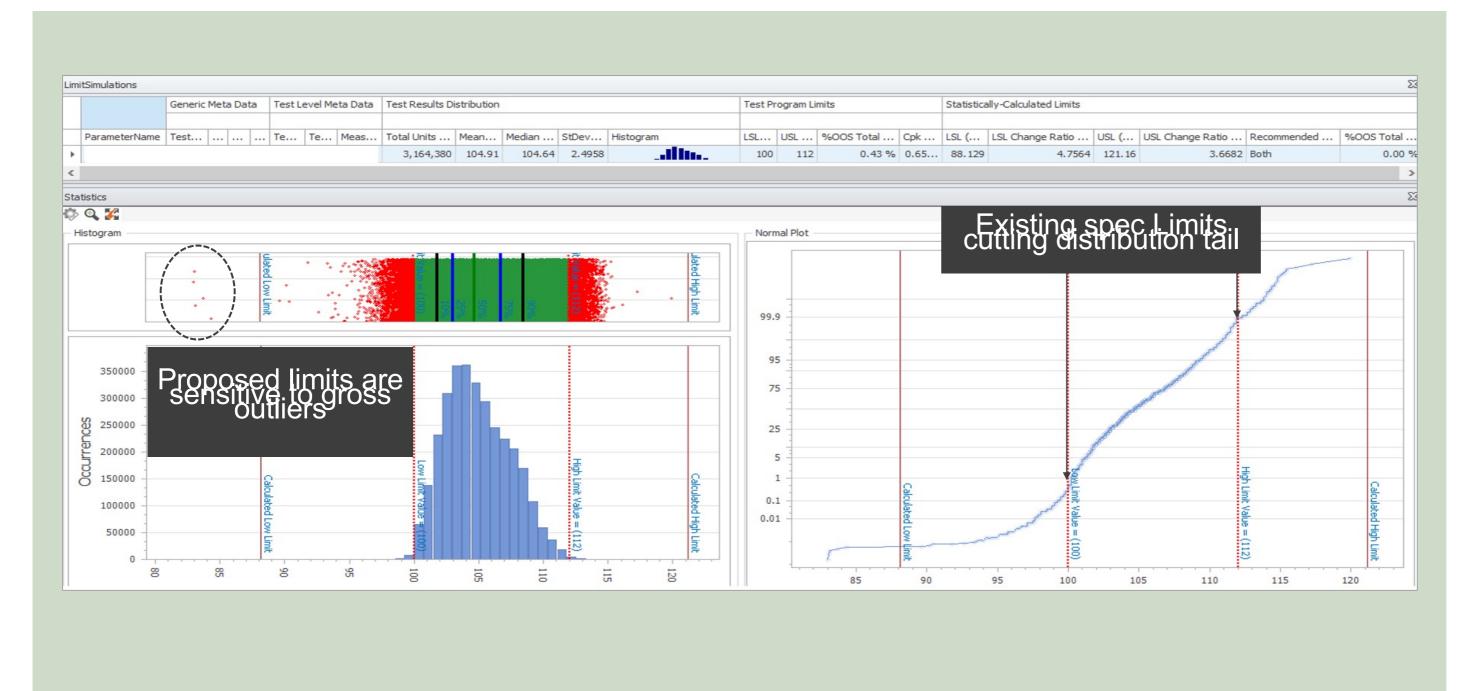
Operations issue: Low yielding lot on hold at supplier

Problem discovered: Combination of low site 7 yield due to high HB4/SB24 Rx test

Resolution:

Rules monitoring catches issues, efficient web flows allow rapid disposition

וח Yield improvement example – tight spec limits



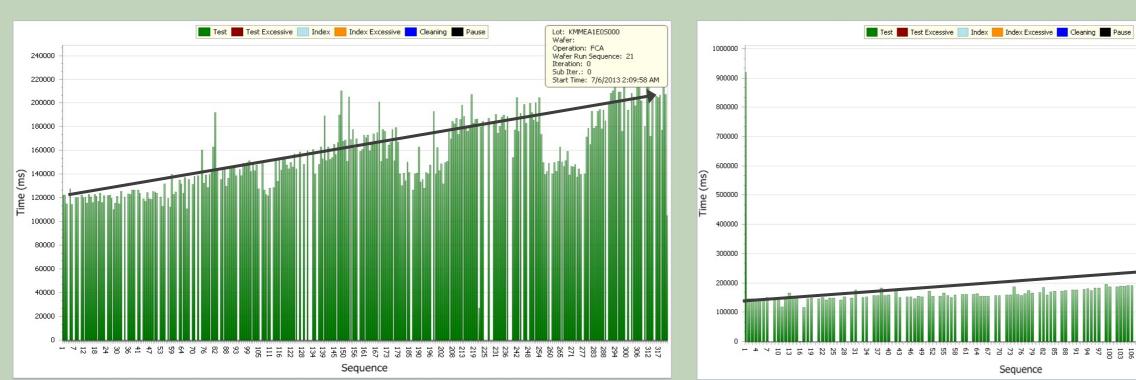
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Problem:

Current tests limits are too tight, causing 0.4% yield loss.

Solution: Propose tests limits which will reduce yield loss without impacting product quality

Customer use case: Efficiency problem – Increasing test time



Standard O+ rules found Testers had different throughputs Test Time Increasing from 120 Sec to 300 Sec

Result: Saved 8 test stations = \$12M in CapEx & OpEx Savings

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Lot: KMMEA1DMXD00 Wafer: Operation: FRAQC Wafer Run Sequence: 23 Iteration: 0 Sub Iter: 0 Start Time: 8/11/2013 3:59:22 PM	
145 145 145 139 130 130 130 127 127 127 127 127 127 127 127 127 127	

Device: Micro controller with Flash

Problem: Capital avoidance

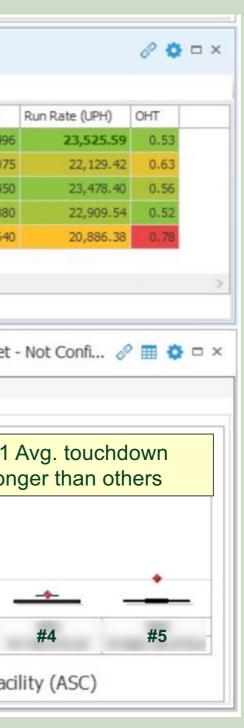
Issue: Needed 10 more test stations

Problem discovered: Issue with test program

Fix: Improved O+ rule for monitoring for all future testers/devices

Customer use case: Suppliers benchmark dashboard for key KPIs

	Product	Facility	Tester		Total Units 🔻	Total Lots	Yield	First Pass Yield	Offline Retest Rate %	Avg. Good Test Ti	Avg. Index	TD_Time	GPH
Þ	G0A057P-Z058				10,821,352	68	99.87 %	99.87 %	0.41 %	6 1.733	250	1.98	23,49
	G0A057P-Z058				8,565,935	49	99.75 %	99.32 %	2.15 %	6 1.713	284	2.00	22,07
	G0A057P-Z058				4,362,834	26	99.88 %	99.88 %	0.47 %	6 1.694	390	2.08	23,45
	G0A057P-Z058				1,181,776	7	99.87 %	97.57 %	3.59 %	6 1.707	258	1.96	22,88
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Problem: How do I keep visibility on my complex supply chain

Solution:

Provide consolidated views of operations across all suppliers mfg. sites

- Enable objective benchmarking of suppliers
- Highlight KPIs that require attention
- Enable drilldown for root-cause analysis





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