Your transformation starts here...

Nearly every industry is being transformed by market and technology forces that bring new opportunities for growth, but also new challenges. Keysight offers a powerful combination of industry leading solutions, technology expertise, and transformation experience. We partner with clients to help them achieve remarkable results on key business objectives.
Communications
- Emerging standards/technologies
- Low margin data explosion
- Substantial first to market advantage

A&D
- Drive to lower cost & shift to fixed cost
- Assurance of supply / Long life programs
- Higher volumes & Commodity-like requirements

Automotive & Industrial
- Electronic content proliferation
- Exploding systems complexity
- Ultra-high security & reliability criteria

Electronics
- IoT and digital-physical convergence
- Complex ecosystems
- Rapid industry expansion
Market & technology forces are transforming industries...

A set of pervasive technology forces — the internet of things, big data & analytics, mobile, social, cloud, etc. — are driving massive explosion in the volume, diversity and complexity of devices. These forces are also driving system complexity and demand for ultra-high security and reliability characteristics. And the rate and pace of new technology and standards introduction is accelerating.

At the same time, we are seeing substantial market shifts: high mix low volume, accelerated product introduction, commodity like requirements in traditional high spec industries, shift to fixed price contracts, complex ecosystems and new industries emerging as a consequence of digital-physical convergence.

...resulting in a relentless drive to bring breakthrough electronic products to market faster, at a lower cost.

Clients tell us they need to accelerate time-to-market, lower costs and reduce risk. They consistently cite the growing complexity of systems and the need to meet significantly more stringent security and reliability criteria. Many organizations are realizing that they may not possess the requisite capabilities and expertise to successfully address these challenges.
Keysight Process Analysis

A professional services offering designed to:

– Optimize and modernize test processes to drive improved efficiency & efficacy.
– Align design to manufacturing through test to enable process transformation opportunities.
– Expert analysis, benchmarking and best practices implementation to assure achievement of outcomes.
Assure business outcomes through expert analysis and best practices implementation – reducing the complete cost of test, accelerating time to market, and mitigating risk.

Keysight offers a powerful combination of industry leading solutions, technology & process expertise, transformation experience and business insight to help clients bring breakthrough electronic products to market faster and at a lower cost.

Three key elements work together to deliver measurable results:

1. A partnership model that provides access to industry leading T&M technologies, deep technical expertise, broad process knowledge, industry specific insights, and operational benchmarks based in hundreds of engagements.

2. Aligning design to manufacturing through simulation & test enables broad process transformation and creates opportunities to significantly reduce the complete cost of test and thus lower the overall cost of your product.

3. A stepwise approach that combines business & technical expertise to develop actionable strategies based on detailed analysis and best practices. Benchmarking against peers and industry leaders identifies opportunities & areas for improvement and measures progress toward goals.
The Keysight Process Analysis Approach

We have integrated learnings from our own transformation and ongoing excellence in operations to create the industry’s largest benchmark database and process methodology. Keysight Process Analysis is a stepwise approach that combines business and technical expertise to develop implementable strategies based on expert analysis and best practices.

A stepwise approach assures outcomes

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<th>1 Define Goals &amp; Scope</th>
<th>2 Discovery Process</th>
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<td>Our engagement methodology starts with understanding your desired outcomes and mutually agreeing upon objectives and scope. We jointly identify critical success factors and potential obstacles.</td>
<td>We go through a short, but intensive, discovery process where we observe your processes, understand your environment, and digest your metrics/KPIs/dashboards.</td>
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Laptop Manufacturer

69% Reduction in defects 70% Decrease in work in progress 84% Reduction in cycle time
### Analysis & Review
We then analyze and assess your current environment in the context of industry trends, identify gaps & opportunities, and formulate recommendations.

### Financial Study
We benchmark you against your peers and the best in industry within the agreed to scope. We also perform a detailed financial study including total cost of test analysis, ROI on proposed changes, and financial benefit projection.

### Present Findings
At this point we present the findings including a recommended implementation roadmap and projected outcomes.

### Progress Assessment
To assure the desired outcomes, we return to assess progress against the implementation plan and repeat the benchmarks to quantify the benefits realized.

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**Expert analysis with quantifiable metrics**

- Benchmark against industry peers
- Current process analysis
- Quantified evaluation of alternatives
- Financial benefit projection
- Implementation roadmap
- Follow-up benchmark to assess impacts of changes

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**Total Cost Of Test Benchmarks**

**Total Cost of Ownership**
- Asset management structure & process

**NRE**
- Test Re-use (HW/SW)

**Labor & Overhead**
- Number of test stations per operator
- Number of overhead people per test step

**Manufacturing Throughput**
- Capital Utilization

**Process Yield**
- First pass yield
Control Systems Manufacturer

69% Reduction in defects
60% Lowered hardware costs
Aligning Design to Manufacturing through Test

Opportunities for process improvement & innovation are enabled by aligning design to manufacturing through test. Time to market can be accelerated through simulation of complex systems and designing for manufacturing. Automation, workflow simulation, and designing for parallel test are just a few ways in which we can help you rapidly ramp to production.

Device performance & asset utilization analysis, combined with predictive maintenance can help optimize manufacturing and assure availability. Further, understanding the dynamics of test in the context of design to manufacturing opens opportunities for substantial reductions in the cost of test and the overall cost of your product. For example, a 20% decrease in yield will have the net effect of increasing the cost of test by over 30%.
Medical Equipment Manufacturer

65% Reduction in product introduction time
49% Lowered process steps
Assuring results that matter

Low volume high mix is always a tough business. A leading avionics manufacturer needed to streamline their manufacturing and test processes to remain competitive. By focusing on basic operational imperatives and understanding each of the test processes, we realigned their test needs to target finding defects faster with more accuracy and ensuring a robust quality process. In addition, they saw improved throughput and lowered overall cost, specifically they reduced defects by 59%, return rate by 64% and cycle time by 60%.

Meet one of the experts

Duane Lowenstein
Test Strategy Analysis Manager

With 25 years of new product introduction, manufacturing and support experience, Duane Lowenstein has assisted over 40 of the Fortune 100 electronics companies in improving their business results by assisting in the implementation of leading-edge operations theory and processes improvements. Through Keysight Process Analysis, Duane has assured meaningful outcomes for customers in many industries including computer, wireless, automotive, aerospace & defense, and commercial electronics. His focus on measurable results has led customers to dramatic improvements in the cost of test, test time, and yields.
Leverage nearly 80 years of measurement excellence

You’ve known us as Hewlett-Packard, Agilent Technologies, and now Keysight Technologies. Since 1939, the bedrock of our approach has been a commitment to measurement integrity: it ensures consistent results that correlate across test platforms as your product moves through simulation, R&D, design verification and manufacturing.

Transforming hidden challenges into business opportunity

It’s an issue that all leaders face. One that crosses time zones. And transcends any language barrier. “How can I unlock the hidden potential that lies within my business to accelerate technology adoption and lower costs?” Enter Keysight Services.

Our combination of people, processes and tools will help you stay ahead of the competition. Bring breakthrough ideas to market faster. Keep the line moving error-free. Maximize asset usage. Strengthen measurement science expertise within your workforce. And reduce total cost of ownership across the entire instrument lifecycle from acquisition and optimization to decommission and renewal.

It’s more than a new approach. It’s a whole new world of potential for your business. Our experts are ready to help with today’s rapidly changing technologies—everything from designing reliable 5G network devices to capturing elusive electronic threats—and with a deep focus in Aerospace Defense, Wireless Communications, Automotive, Industrial and Internet of Things, our experts are on the ground—around the world—ready to help you achieve both technical and business results.

KEYSIGHT SERVICES

Accelerate Technology Adoption. Lower costs.

Keysight Services can help from acquisition and integration to optimization and renewal of your instrument’s lifecycle. Our comprehensive service offering helps you improve productivity and product quality.

- One-stop Calibration
- Repair
- Asset Management
- Technology Refresh
- Consulting
- Training

www.keysight.com/find/services

Next step

Engage with our Keysight Process Analysis experts today to get a head start on reducing the cost of test, accelerating time to market, and mitigating risk.

www.keysight.com/find/processanalysis

Keysight Services helps you improve productivity and product quality with our comprehensive service offerings of one-stop calibration, repair, asset management, technology refresh, consulting, training, and more.

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