



**Product
Realization
Group®**

Success Story

NPI IMPACT Enables Semiconductor Test Equipment Success

What we did:

PRG provided the company with our NPI IMPACT solution which allowed multiple, diverse PRG experts to be brought in as required to accelerate progress.



Results:

The company exceeded their next generation product business requirements through the establishment of NPI, Quality, Reliability and cost reduction processes and regained their biggest customer

Company: Tier 1 Semiconductors

Headquarters: Silicon Valley, California, USA

What they do: This Tier 1 company is an equipment and solutions provider of semiconductor simulation and testing.

Challenge

The company had a global expertise in the creation of semiconductor design software but wanted to expand into the hardware realm and so had acquired an international division making high-end test equipment for major semiconductor manufacturers. The equipment had a poor record of reliability and system performance was disappointing their biggest customer. The downtime was exceeding requirements and components were failing regularly with an associated costly and risky repair and rework cycle.

Solution

PRG provided a group of seasoned New Product Introduction process experts to address the companies issues as part of the NPI IMPACT solution and helped build a strong in-house team for supporting current and future growth. Our team of industry veterans supported the following activities:

- Project governance planning and management
- NPI program management
- Product reliability
- Quality Systems engineering
- Test development engineering
- Production documentation and process optimization
- Materials, supply chain and contract manufacturing

Charting the way forward

To grow business, many companies will partner with and, in some cases, buy other businesses who have complementary products and technologies. This company is known for deep expertise in its software solution, but wanted to broaden its' business by acquiring a leading hardware company outside of its' domain expertise. However, the hardware product had inconsistent product performance as well as down time. Continued rework was required because of electronic component failures. This drained the company's resources and ability to support it's ongoing successful business.

Creating clarity for progress

The hardware business that the company acquired had strong hardware development capabilities but weak product lifecycle and program management processes. For its' next generation product the company wanted to:

- Substantially improve system performance
- Increase system uptime
- Reduce component failures
- Avoid costly and risky electronic rework
- Reduce overall cost to manufacture, increasing profitability

Key benefits of engagement with PRG

Using NPI IMPACT from PRG leveraged integrated support, introduced well-defined processes, and built a collaborative product development team.

- Established a best-in-class NPI and Quality process
- Provided released documentation for eventual ISO certification
- Improved system performance
- Increased system uptime by over 5x
- Reduced electronic component failures
- Demonstrated greater reliability
- Greatly increased demand for its next generation product

"PRG's team of experienced engineers and consultants were able to add value to the company on day 1. We didn't lose time trying to find and then train a team of new employees, saving us time and money. Since our new product has been deployed, the improvement in quality and reliability have been like night and day."

— Senior Director of Operations

The right people, processes and relationships

PRG mobilized the highest-level skills across a broad team of experts to generate new ways of working to bring quality, reliability and profitability to the company's product.

Technical Program Management

One of PRG's NPI Technical Program Managers (TPM) setup the core team structure for the NPI process and then established a phase-gate product life cycle methodology for the team.

Quality Systems Engineer

One of PRG's Quality Systems Engineers provided expertise in quality programs resulting in a substantial improvement to the company's quality team's ability to identify and track quality issues to closure and improving the quality of the next generation product.

Product Reliability Expert

PRG's Product Reliability expert analyzed downtime data from the existing system to develop a reliability improvement program that closed the biggest reliability gaps and set up higher reliability attainments for the company's next generation product, resulting in 5x improvement in product uptime.

The final result

By leveraging PRG's on-demand team of NPI IMPACT experts, the company exceeded their next generation product's goals for consistent quality, reliability and reduced cost, reclaiming their biggest client as a customer.