30V P-Channel MOSFET

Major Semiconductor Manufacturer
Dramatic Reduction in Cycle Time:
From 270 to 66 days

Learning as Leadership Case Study

Over a five-year period LaL supported members of a major Semiconductor manufacturer's Product Development Center (PDC) to better compete in the marketplace by reducing new product design cycle time. For the ten years prior to engaging LaL, the team had tried various methods to reduce cycle time and were only able to do so from 300 to 270 days.

Through LaL's 4-Mastery training courses, team members were able to identify aspects of the company's culture, as well as their respective beliefs and individual patterns of behavior, that contributed to sub-optimal performance. In their words, their individual and team dysfunctions caused them to get in their own way; they were not able to fully use their expertise to accomplish the needed results. By breaking through these barriers, the team was able to dramatically improve cycle time, reducing it from 270 to 66 days.

Phase I: Successful Pilot

During Phase I the team realized that cultural norms such as "always be working on a new project" led them to start new projects even when the success of current projects demanded their full attention, compromising both outcomes. They also recognized how they were wasting precious time in reactive patterns of behavior. Examples included a team leader who would put ideas on the table and then withdraw from the discussion if they weren't immediately accepted. He discovered that the behavior was rooted in a fear of rejection and it prevented his often innovative ideas from being heard. Another leader would lash

Product Development Cycle Time DECREASE (Normalized)
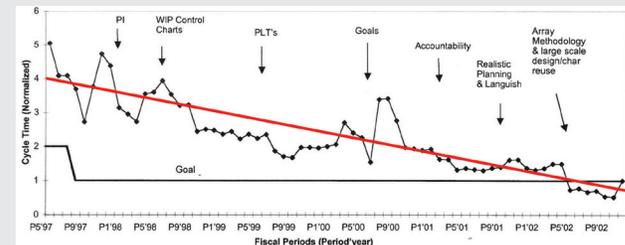
When they started LaL mid-1997, the PDC had spent the previous 10 years trying to reduce their cycle time and had gone from 300 to 270 days. The chart above graphs how – over their 5-year engagement with LaL – they reduced it from 270 to 66 days.

out at his staff when their efforts did not meet his expectations, causing alienation; this relationship resulted in less work being done and even longer delays to the project. Yet another leader insisted on "winning" disagreements, especially with Quality Control. He inadvertently instigated an "Us vs. Them" dynamic that caused one product to be delayed five weeks. Shocked to realize how their behavior caused much of the project delays, the team practiced being more direct, honest and constructive with each other, as well as striving to better understand others' perspectives on issues. It was actually the first team leader's adamancy about a new idea that sparked a team commitment to a seemingly impossible goal – to reduce new product development cycle time from 270 to 90 days. Through the changes they were able to implement, the team actually succeeded in surpassing their goal and achieving a pilot test time of 85 days, 6 months less than previous times.

"I looked at our team and saw a group of very bright people who had all the technical capabilities to solve any issue. The question became: why weren't we ? We needed to get out of our own way!"

Phase II: From Pilot to Department Wide Success

In Phase II the team's goal was to build on the success of the pilot team and implement the new strategy throughout the entire department. They revamped their product development process and additional PDC team members participated in LaL trainings. Initial efforts went poorly; the PDC had a matrix reporting structure and typically ran 4 product development teams simultaneously. They were unable to reproduce the cycle times of the pilot team, and stress rose in the organization as they tried to meet the market pressure of the then booming dot.com industry. They employed LaL's facilitation and consulting services on a number of occasions to help them through this difficult period. Initial facilitations dissected failed projects in order to understand why the pilot process was not working on a broader scale; later sessions defined how to implement those learnings and served to hold the leaders accountable to their commitments. These sessions revealed that the matrix structure was severely aggravating their misalignment and lack of communication on priorities and staffing resources. Competition amongst project managers, understaffed teams and unrealistic project plans contributed to an environment of stress and low morale in which, paradoxically, no one could be held accountable for under-performance because everyone was staffed in too many roles. Employee retention had become a major issue. With LaL's guidance, the PDC leadership team committed to and put into place a communication structure that addressed these issues as they came up, nearly eliminating the time that a product would "languish" due to conflicting directives. By the end of this phase, PDC project teams were consistently developing products across the department that matched the pilot team's seemingly impossible marks.

> *"I can't describe to you how great it feels when you're in sync with your team, to the point that you actually want to put the difficult issues on the table! I looked forward to asking for the support of this team of people whose intentions I trusted. Our priority was no longer to promote or protect our egos, but to be as effective as we could together, no matter what."*

Phase III: Ongoing Breakthroughs Despite Drastic Economic Downturn

Just as performance and morale were improving due to the preceding work, the company was faced with a huge economic downturn in the semiconductor industry. They needed to reduce costs and increase productivity. Their plan for ongoing work with LaL was actually curtailed due to a moratorium on discretionary spending. Top leaders in the PDC drew on LaL's expertise to set up a peer-coaching framework that sustained key practices in the culture. Despite several rounds of layoffs, the team was able to exceed their FY '02 objectives by releasing 57 more products than their objectives at an average cycle time of 66 days.

RESULTS

- After a year of training with LaL, the team achieved pilot tests on new product development cycle time at an unprecedented reduction over previous averages – from 270 to 90 days - a result far beyond their wildest dreams.

- After their initial cycle time reduction achievement, they broke new ground, reducing the original time to 66 days. They also surpassed their new product introduction targets and achieved 95% product success hit rates on first time designs.

- The Product Development Center members became agents of change in their organization, creating a learning culture that still remains long after the completion of LaL's 4-Mastery Program.

- All this and the impressive FY '02 results mentioned above, despite dramatically reduced spending during a series of very difficult years for the semiconductor industry.