



How to Add Value to Your Company - The Scientist's Way

Mergers, acquisitions and internal developments may add value to a company. But not all growth has to come through acquiring more of the same or new capabilities. What if you could boost development with limited capital investment – by reviewing and improving processes?



Stephen East, Vice President Innovation Efficiency at Evotec

One way to do this is the [Lean SixSigma](#) approach. SixSigma, Kaizen and Lean are all structured approaches to continuous improvement and change for the better. This is achieved by increasing quality through structured process control, a client-focused strategy and methods to systematically enhance processes. Basically, these approaches challenges

the infamous attitude: ‘we do things this way, because we always have, even if nobody remembers why’.

Lean, SixSigma and other methods provide a set of tools to increase speed and quality by identifying and eliminating waste. Besides actual material waste, Lean production seeks to avoid non-value-adding work, overburden and any part of a process that prevents it from flowing smoothly.

Researchers can optimize ADMET and DMPK properties with the help of high-throughput assays. These allow them to maximize exposure at the desired target site for efficacy and minimize the potential toxicity of a drug.

Continuous improvement at Evotec

As part of a management effort to develop a long-term growth strategy, [Evotec](#) started implementing Lean methods back in 2012. *“As a company of scientists, an analytical and structured approach seemed natural. As a CRO, it was equally clear that the approach had to be customer-*

focused,” Stephen East, VP Innovation Efficiency at [Evotec](#) recalls.

Sure enough, [Evotec](#) approached the topic the scientists’ way – by defining a hypothesis and designing suitable experiments to verify it. To get started, they hired a person with profound experience in drug development, as well as in applying Lean SixSigma in a pharma environment. Together with this expert, they initiated two proof-of-concept pilot projects.

When these turned out to be successful, more people were trained and more projects were conducted. *“After six years, and almost two hundred projects, continuous improvement has become an integral part of our daily life,”* East says. *“Our trainees are actively encouraged and empowered to build and lead teams to investigate opportunities for change.”*



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Applying the concept

So what does a process improvement project look like? Here is one example: A few years ago, things were not running optimally in Evotec’s [Drug Metabolism and Pharmacokinetics](#) (DMPK) team. With

rising demand from customers, people were stretched and instrument capacity did not keep up with demand.

As a first step, the [DMPK](#) group leader asked her team to measure relevant parameters – logging the time spent on deviations, use of instruments and instrument downtime. *“It turned out that on average, each team member spent considerable time on software or hardware issues, or on repeating failed experiments,”* East remembers.

Improving workflows

Using this data, the team started defining issues and identifying root causes. Issues were grouped into a pay-off matrix: Which issues have the highest impact? Which of those can be solved quickly with little effort, and which are worth investing more time and money? And which ones are outside the scope of the current project?

They discovered that a major cause for instrument downtime was a lack of reliability in high-performance liquid chromatography (HPLC) columns. As a direct measure, a more robust column brand was identified. In addition, each instrument was allocated an experienced ‘super user’ who would ensure regular instrument maintenance and advise new users on how to address column issues.

The analysis also clearly demonstrated that additional HPLC and mass spec instruments had to be purchased to match capacity with the growing demand, and

that additional staff was needed to run them.

And what did the team say? *“In the beginning, some people felt they did not have time to invest in the project. But afterwards, the feedback, both internally and externally, was very positive. Our people were more motivated as excessive work was reduced. Error rates went down, and overall, projects ran more smoothly, shortening turnaround times for our clients,”* East says.

And the customers?



Customer feedback is now collected regularly to monitor progress and identify areas that still need improvement

But is faster delivery enough to satisfy customers? To find out, the team conducted standardized interviews. It became clear that customer requirements were evolving: In addition to data, clients were asking for more analysis and intellectual input to help them solve their problems.

“This was the kick-off for our next project,” East explains. *“Skill matrices were created to assess the strengths in the team and we hired a larger number of*

more experienced scientists to supplement bandwidth for projects and invest in further training our existing team.” In parallel, processes were redesigned so that for each project, one DMPK expert would be in charge as the single point of contact for the client.

And as with every scientific experiment, it is not simply enough to change parameters – you also have to measure their effect. Accordingly, customer feedback is now collected regularly to monitor progress and identify areas that still need improvement. *“We make every attempt to be transparent in our efforts, so our clients are confident that their projects are in safe hands,”* East emphasizes.

A cost-cutting tool?

The buzzword ‘efficiency’ may raise a red flag – after all, one interpretation could be that fewer people are needed to do the same amount of work. For East, it is important to stress that process improvement is not about cutting costs, or even cutting personnel: *“Rather, our analyses serve to identify the areas in which we need to hire or train more people, and where capital investment has the highest impact.”*

“We have found that 70% of our process improvements focus on speed, and time is a valuable commodity for our workforce and our partners. It provides our staff with an opportunity to think about, design or create something new. Time is also valuable for our clients. If we can deliver a quality drug faster, then everyone will

benefit – Evotec, our clients and, most importantly, the patients,” East concludes.

Join the discussion! Contact Stephen East directly at Steve.East@Evotec.com to learn more about the effect of Evotec’s continuous process improvement and how it may be applied to your company.

Interested in the topic? [Read up on Lean Six Sigma.](#)

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The original article was published on 19/12/2018 under <https://labiotech.eu/sponsored/process-improvement-lean-six-sigma-evotec/>