



NOVARTIS

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Benefits at a glance

- ▶ **Service level up from 97 per cent to 99.75 per cent**
- ▶ **Daily stock-outs reduced from 400 to 24; a 94 per cent improvement**
- ▶ **Aggregate OTIF delivery reliability improved from 40 per cent to an average of 92 per cent**

Customer Profile

Driving the business back to health

Five years ago, Swiss multinational pharmaceutical company, Novartis, were facing a challenge. Customer service levels in its patented Innovative Medicines division had fallen and too many products were out of stock on a daily basis. In order to ensure availability of vital medicines to patients, the company decided to act. It embarked on a Class A programme with Oliver Wight to transform the supply side of the business.

Novartis is one of the world's leading pharmaceutical companies, by both its impressive international sales figures and market capitalisation. Today, the divisional service levels are 99.8 per cent and above and stock-outs have been reduced by 94 per cent. The divisional supply culture has been transformed and the company is now rolling out a cross-divisional Class A programme across its entire supply network.

Imagine the **possibilities**,
realize the **potential**.[®]


OLIVER WIGHT



“Although our core mission is developing, innovating, marketing and selling medicines, this obviously cannot exist without a first-class manufacturing operation.”

Ian Anderson, NOSSCE Global Program Head

Novartis was formed in 1996, from a merger between the agrochemical and pharmaceutical divisions of Ciba-Geigy and Sandoz. Headquartered in Basel, Switzerland, the company has a global reach, with approximately 125,000 full-time-equivalent associates worldwide. Novartis products are sold in approximately 155 countries around the world. Novartis offers a diversified portfolio consisting of innovative medicines, cost-saving generic and biosimilar pharmaceuticals and eye care. The company has leading positions globally in each of these areas.

Though seemingly untouchable, five years ago Novartis was faced with internal supply challenges within its Innovative Medicines division. The supply performance reliability of its manufacturing operation was negatively impacting the commercial side of the business, putting it at risk of competitive disadvantage.

The commercial side of the Innovative Medicines business is supplied by Novartis Technical Operations (NTO). It's a very significant operation in its own right, as Anderson, Global Head of the Class A Program, explains: “Although our core mission is developing, innovating, marketing and selling medicines, this obviously cannot exist without a first class manufacturing operation.” However, as a result of limited supply reliability, commercial customer service levels had fallen to 97 per cent (a very low statistic for the world-renowned pharmaceutical brand).

The aggregate On Time In Full (OTIF) delivery reliability, from NTO to commercial operations, was down to 40 per cent. “It was the Genesis of a new journey for us,” says Anderson. “Our levels of service to customers had fallen and if we didn't act, we recognised we could potentially face a crisis whereby patients would be negatively impacted and may not be able to access vital medicines.”

The company's business performance was being further tested by delicate relationships between commercial and NTO, with a growing tendency to hold each other accountable for either poor forecasting or unreliable supply. The senior team was able to draw a direct line between NTO's difficulties in its fundamental mission of making products available to customers with what was happening at the manufacturing sites. It became clear there was a significant lack of



understanding of both the supply and production models, and a loss of connection to the customer and the satisfaction of the customer as a primary objective.

The sites were not clear on which Supply model they should be operating because many different set ups had been put in over many years to respond to different situations. “There was confusion over whether to manufacture to stock and pack to order at a response advantage but inventory disadvantage, or to pack the tablets as fast as possible and focus on the throughput time of the end-to-end supply chain on the site,” says Anderson. “There was also a problem with master data and improvement opportunities for S&OP which were carried out at every site but with very few operating the process correctly.”

The issue however, was not with the organisation’s IT tools. Novartis operates SAP globally, which Anderson describes as “adequate and fit for purpose”. The focus was on people, processes and responsibilities. So, the company made the decision to pursue Class A with business transformation specialist, Oliver Wight. “For the Class A programme, we had a complete aversion to doing anything with IT. We knew that the issues lay with a lack of clarity in our processes and individual responsibilities. Also the general expertise in some of these processes had degraded over the years and had become very low,” comments Anderson.

For Novartis, the goal was to improve, targeting two major objectives:

1. High-levels of service from Novartis to its customers, ensuring patients always have access to medicines
2. Improvements in the operating efficiency of its manufacturing sites

The initial Class A programme was a phased implementation across the sites of the Innovative Medicines division. Anderson says that the scope of the project represents the entire supply leg of the Oliver Wight IBP model (Figure 1) and the detailed supporting processes that need to be in place. “The objective was to achieve Class A for the entire site supply side, and the question we asked ourselves was, ‘how do we reach the highest standard?’ rather than just ‘how do we get better?’”, says Anderson. “Class A sets a clear level of performance.”

Structuring change

Novartis’ transformation was based on the core principles of MRPII and Oliver Wight’s Class A Standard. These core principles were adapted to the specific needs of the business, and documented in a set of internal standards.

Novartis created a brand for the program: NOSSCE (Novartis Operational Standards for Supply Chain Excellence). Anderson explains. “From the outset, it was important that Class A had a real value. The brand symbolised what we were trying to do and today it represents the beliefs, pride and achievements of hundreds and thousands of people in Novartis who have delivered this over the last five years.”



Figure 1: The Oliver Wight Maturity Model

In the beginning however, it was far from easy. “We are a great company,” says Anderson, “but on this subject we need to improve. We needed a lot of help from Oliver Wight to get started.” Together, Oliver Wight and Novartis produced a 92-page process manual to describe the processes that were essential to the sites; importantly these were agreed with the sites rather than imposed from above.

This was accompanied by a 49-page checklist so each site could measure its progress against the defined standards on a monthly basis. This was against a set of 23 KPIs, defined and described in a third 45-page document.

“We discovered we had a cultural challenge around metrics,” admits Anderson. “The prevailing sentiment with any KPI was that, ‘it has to be green.’” It created a huge challenge in the Class A journey because the leadership team needed to have

transparency on what was happening at the process level. “We had to understand whether or not the process was working but the culture of the time did not initially support this,” says Anderson.

Consequently, each site set about a cultural change programme to get staff to recognise that rather than being a threat, the KPIs were there to help staff understand the performance of the process so they could improve it. “The culture change was vital,” says Anderson, adding, “The sites had to see the metrics as their friends, rather than the enemy; the objective wasn’t just to ‘get a green’ to show you were a good guy.” Ultimately, the 23 process KPIs proved an essential component, enabling the business to establish the facts about process performance, removing any natural emotion and resistance that typically comes as part of business transformation. “Communicating transparently to the whole business meant that, over-time, all staff members became motivated by quantitative performance targets, which still drive their focus and attention to this day,” says Anderson.

Anderson says, “Additionally each site created its own Supply Model that describes the fundamental set up of the site, who is the customer, what is the trade-off between cost responsiveness and inventory, how are the decisions made and so on. It is not a technical document but a set of principles. It has brought huge value.”



“The improved teamwork has definitely given staff a better quality of life, they have pride in what they do. This has become very strong factor, with a real sense of moving from survival to doing a good job.”

Ian Anderson, NOSSCE Global Program Head

Engaging with the organisation

Leadership commitment to Class A meant there was top-down clarity that every site in the division would enrol into the transformation programme. The Oliver Wight team was first engaged to educate and coach each site team on NOSSCE, but over time their knowledge was transferred to an internal expert team (the NOSSCE Global Team), created to help roll out the program to additional sites going forward.

But according to Anderson, the real ‘powerhouse’ behind Novartis’ transformation was the staff at the sites. They took ownership of the program at their site, supported by education and coaching from Oliver Wight and the internal NOSSCE Global Team. They were empowered to determine their own programme from start to finish, based on their site mission, strategy, business need and the integration with their other priorities.

Each site appointed a full-time leader, reporting to the site head and supported by eight to ten part-time work stream leaders. In all, approximately 10 per cent of each site’s overall workforce was involved in helping implement change, drive engagement and deliver the transformation. A bottom-up determination quickly evolved and support from staff has grown stronger year on year, so much so that a deep belief in the programme has flourished amongst the site teams, without which, Anderson is convinced real and sustainable progress would not have been possible.

“We’ve done this very much in our own way,” he says. “The partnership with Oliver Wight was crucial but it was also

important that we developed the programme to suit our own personality. We consciously created something that we owned and that was really important. We had a very clear top-down sponsorship and without that I don’t think we would have ever got started. But that has grown into a bottom-up desire.

There is real sense of purpose and ownership among thousands of people in our company that drives this programme now.”

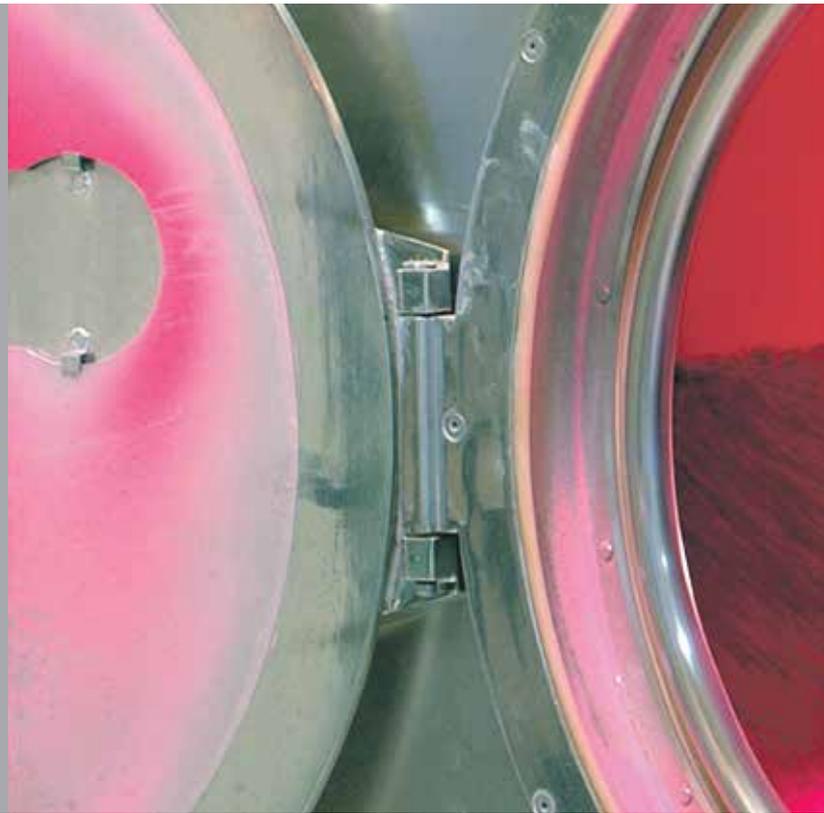
Definition of supply chains and project scope Novartis’ transformation process was to spread across all 16 NTO sites and would cover:

1. Site Strategy and Supply Model/Set-Up
2. Sales and Operations Planning
3. Demand Management
4. Master Production Scheduling
5. Material Requirements Planning
6. Capacity Requirements Planning
7. Shop Floor Control
8. Master Data Management
9. Communication
10. Capable and trained people
11. Framework for sustained improvement

The company’s people had the awareness that the programme’s overall objectives were to improve site supply reliability and enhance operational efficiency. A KPI hierarchy was created to illustrate the link between these objectives and each NOSSCE process for Novartis senior staff members.

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Where are they now?

For Novartis, the programme isn't just about the supply chain function but the big picture of supply chain. It's about connecting customers to supply in a profitable way and this includes engineering, technical, production, finance and quality.

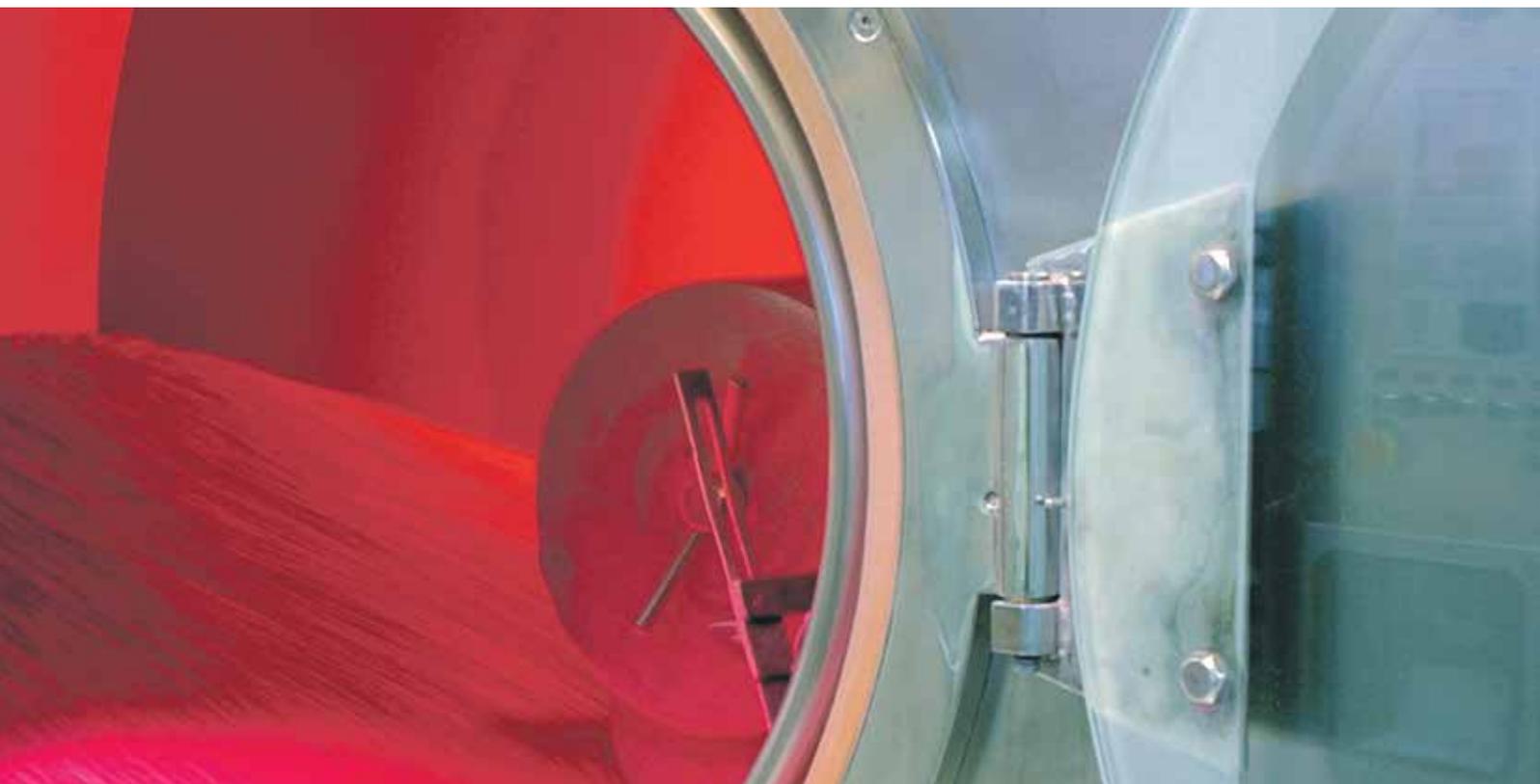
Impressively, 13 of Novartis' 15 target sites have now reached the Class A standard and there is an intense focus on the remaining two sites to join them. It has been no trivial commitment. Each site has taken about two years to achieve Class A, typically with a team of 100 and Anderson says that for a significant period of time a site can believe that Class A is unachievable. "That's OK because we know it can be done," he says. "It's hard and no part of the organisation has found it easy to achieve. But eventually, Class A drives out the counterproductive things each site has lived with for many years. Every stone is turned over to achieve 'Novartis Excellence.'"

And it's been well worth it. Five years on and the number of daily stock-outs has been reduced by 94 per cent – and in the last 18 months, Novartis has also reported an average commercial service level of 99.8 per cent per month, with most months reaching an incredible 99.9 per cent or above. On top of this, OTIF reliability has improved from a low of 40 per cent to an average of 92 per cent, while waste has been cut by up to 79 per cent.

But success isn't just measured in terms of supply reliability and site efficiency; the stability that Class A brings has enabled significant improvements to take place. For example, in terms of customer lead times, Anderson says that three months is often quoted as the accepted pharmaceutical industry default lead time. But Class A has meant Novartis has been able to bring this down by an average of 22 per cent and up to 50 per cent for some product lines.

"The shorter lead times would normally enable an increase in the service level," explains Anderson, "but because of the great site reliability achieved we are already operating at a sustainable, and acceptable, 99.8 per cent for Innovative Medicines. Therefore, we used the shorter lead times to enable a significant reductions in our safety stocks on the commercial side of the business. Actually, we've cut them by 22 per cent, which is not a trivial number for our business. Class A gives you a sustainable improvement culture."

Employee engagement and collaboration at Novartis' sites have also received a massive boost. When surveyed, 93 per cent of staff reported a 'significant' or 'very significant' improvement in their understanding of their role within the business, whilst 93 per cent also reported a 'significant'/'very significant' improvement in overall decision-making. Anderson believes that with improved processes, staff spend less time firefighting and more time focusing on development



and opportunities. There is a stronger overall sense of teamwork, improvement in staff quality of life and heightened pride in team members' work. "Some of the biggest changes have been the intangible ones," he enthuses. "The improved teamwork has definitely given staff a better quality of life, they have pride in what they do and are happy to work here. This has become a very strong factor, with a real sense of moving from survival to doing a good job."

Changes for the long-term

For Novartis Innovative Medicines, overall supply chain performance has been utterly transformed and the company is benefitting hugely from a fundamental change in the way its manufacturing sites operate from both a behavioural and process perspective – and the business aims to keep it that way, continuing to drive growth.

Based on the success for Innovative Medicines, Class A has now become mandatory for all sites across the two divisions of the Novartis business. The NOSSCE programme is also being piloted in Novartis sales affiliates with the intention of moving to an end-to-end planning concept. Ultimately, Novartis expects that a combination of transformed supply, improved demand generation and end-to-end planning will drive further future improvements in supply chain performance, particularly with respect to strategic decision making and inventory optimisation.

Anderson doesn't underestimate the task ahead and believes it will be another five years before the entire Novartis operation is Class A. Six people are dedicated full-time to support the sites on their Class A journey. They are the support infrastructure of internal experts responsible for the diagnostics, leadership education and coaching at each site.

And Class A isn't the end for those sites that have already achieved it. The internal team conduct an annual two-day reassessment of each site against the NOSSCE standards for processes and performance. "Sustaining Class A is as difficult as getting it. You have to communicate relentlessly. Change is continuous and it is a big challenge to keep a constant purpose on a ten-year journey in a business that changes quarterly and often in an unpredictable way."

“Class A gives you a sustainable improvement culture.”



When you talk to Oliver Wight about improving your business, we'll assume you want results, not just better processes - things like increased revenues and margins and greater market share. If you have the ambition, it is possible to make improvements that truly transform the performance of your organization and create more fulfilling roles for the people within it. We believe this can only be delivered by your own people. So, unlike other consultancy firms, we transfer our knowledge to you; knowledge that comes from nearly 50 years of working with some of the world's best-known companies.

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