

## **NEW GAME-PLAN CASE STUDY**

### **EXCELLENCE IN LEAN MANUFACTURING**

This case study summarises how we supported the chemicals manufacturing organisation serving a major life sciences company in developing roadmaps to implement 'lean manufacturing'.

#### **Background**

The global chemicals manufacturing sector is intensely competitive. Business prosperity depends on the ability to secure 'continuous improvement' in manufacturing efficiency. Typically, this requires 'soft' advances in behaviour and culture alongside 'hard' advances in technology and processes.

In common with most global companies, our sponsor was shifting the balance of its technological capability and manufacturing capacity to Asia while downsizing its activities in Europe and America. However, because the product portfolio was complex, this was not a simple 'switch-over'. For a significant number of products, it was logical to maintain existing sites due to the need for particularly specialised manufacturing technologies, or for close proximity to research sites or regional markets. Further distinguishing features included a high level of industry regulation, and a need to plan any changes to manufacturing processes methodically, carefully following change control procedures.

The challenge was to secure substantial productivity improvements from diverse sites, not just as a 'one off' budget saving, but relentlessly over time. This was essential for the competitiveness of the products in the market, and of the sites themselves, compared with other company sites.

The company's identified solution was to move to 'Lean Manufacturing', requiring far-reaching changes of philosophy and practice. At the same time, the company also wanted to capitalise on examples of manufacturing excellence from across its network of sites.

We were engaged by the company on the basis of our proven capabilities to catalyse strategic business change through collaborative networking. The aim was to bring relevant staff together from across the business to share good practice and, armed with additional insights into the general theory and practice of lean manufacturing, to translate that good practice into formal roadmaps for lean manufacturing for sites in Europe and America.

#### **About the programme**

We formed a joint project team with the company. The Programme centred on a [Brain-Pool Workshop](#), bringing together senior representatives from manufacturing sites, but there were substantial activities both beforehand and afterwards. Too often 'holding a Workshop' is seen as an end in itself, but here it was only one element in a staged process. The following paragraphs describe each of the key stages.

#### ***Preparation for the Workshop***

In advance of the Workshop, we developed materials and collaborative exercises to communicate business needs, develop a 'starter' definition of 'lean manufacturing', describe relevant capabilities and practical tools, and show how Network models would help to realise the vision. We also asked participants to comment, via an online portal, on 'starter lists' of good practices, capabilities and tools. This work helped to explain key concepts and to get participants into the right mindset. We distilled the contributions received to provide valuable inputs to several Workshop sessions.

### ***The Workshop itself***

The Workshop was held over two days. There were 26 participants from the sites in Europe and America and from Head Office functions. The Workshop featured short stimulus presentations, round-table and plenary discussions, and individual creative working. A senior manager responded to the conclusions presented after each session as necessary. We 'drove' the entire process.

As in all [Brain-Pool Workshops](#), the distinctive feature was the use of special technology to enable collaboration: everyone used special laptops, linked by a wireless network, to input, share, build on and assess contributions. All participants had a fair and equal opportunity to contribute their views - anonymously. This innovative approach delivers a vast improvement in productivity and knowledge capture. It contrasts sharply with the traditional 'talking heads, flip charts and post-it notes' model.

The main Workshop sessions covered:

- Reviewing 'lessons learned' from previous 'improvement initiatives' in manufacturing and, from these, developing and sharing good practices for the future.
- Developing and validating a single, common, company-wide definition of 'lean manufacturing'.
- Articulating, distilling, prioritising and assessing (a) capabilities and (b) tools for lean manufacturing. Our systematic assessment process identified clear priorities at each site.
- Developing and reviewing 'starter' roadmaps for lean manufacturing in syndicate groups, working to our established [Roadmapping](#) methodology and templates.
- Identifying and populating critical Networks drawing on our [Networking Toolkit](#).
- Developing, sharing and making a commitment to implement personal action plans.

### ***After the Workshop***

Immediately after the Workshop, we prepared a 'Flash Report' and circulated it to participants, as 'ambassadors' for lean manufacturing, to help them communicate the Workshop outcomes to their colleagues. This was followed shortly by a 92-page 'Verbatim Report', which recorded all the contributions received (ensuring full transparency), and presented charts showing the outcomes of key assessments undertaken by participants (e.g. of the current status of different capabilities for lean manufacturing at each of the four designated sites).

This Report was followed by our 'Synthesis Report', which provided a basis for the company to determine next steps. This faithfully extracted and distilled the essence of the Verbatim Report, and added further analysis and insights. It was rounded off with our independent recommendations.

The key outputs presented in this Synthesis report, as a basis for further work and decisions, were:

- A company-wide definition of 'lean manufacturing'.
- Distilled lists of 15 good practices, 23 capabilities, and 38 tools for lean manufacturing.
- A systematic assessment and analysis of the distilled capabilities against diverse criteria.
- Results from this assessment presented in chart form both for sites and capabilities.
- A distilled list of 12 specific 'Blockers and Solutions' relevant to lean manufacturing.
- Starter roadmaps for four sites, providing a basis for further work, and exemplars for others.
- A distilled list of 'Who can contribute' in developing capabilities, both generally and specifically.
- Well-populated Networks, distilled from diverse contributions during the Workshop.
- Named ambassadors for lean manufacturing at each site - to work together as a Network.

## **Learning points**

The programme successfully demonstrated the following advantages of our approach:

- The preparatory work was valuable in engaging participants in the subject-matter and generating starter materials for further development in the Workshop itself.
- Focusing on 'definitions' was important. Stimulating thinking around the issue, and allowing time for debate, and for participants to take the lead in developing the chosen definition, bought commitment and helped to change the overall mindset towards lean manufacturing.
- Anonymity during the Workshop helped, since it enabled many people who did not know each other well to share views openly and candidly.
- It was important to cover capabilities and tools comprehensively, giving as much attention to the 'softer' behavioural and cultural aspects (critical with a multinational, multilingual workforce) as to the 'harder' aspects of technology and industrial processes.
- Using our Roadmapping methodology established a common approach for planning strategic change, and the expectation that the process would continue to move forward, with the development of action plans for each site, once people got back to their bases.
- Identifying formal foci for Networks helped to cement the informal Networking which happened naturally during the Workshop, but which would not otherwise have been taken further.

## **Feedback from participants**

Participants liked 'The use of the technology versus old flip-charts approach' and the 'On-line commenting and communication - much more efficient than open dialogue'. They felt that there was 'Good progress on getting buy-in - technology cut out a lot of wasted time'. One noted that 'The technology definitely energised the opinion-gathering stages, speeded them up and ensured contributions from everyone. I particularly like the fact that you can see all other contributions live as they come in and also that you can add comments - even a chain of comments and responses.'

Participants also valued the organisation and outputs: 'Very good time management for a very detailed agenda' and 'Impressive that all stages ran to time with good respect of break times - almost unique'. One noted that 'We captured all the responses and this data can be worked on and used to build up a good picture to use after the Workshop.' Another welcomed the 'Opportunity to co-create a comprehensive list of tools and Capabilities [and] the Lean Manufacture principles. Insightful'. One felt that the 'Technology gathers data very efficiently and actually offers opportunities for priority setting in groups and complex choice manipulation.' Another noted: 'Data entry capture - very 'lean' approach.'

## **Further Information**

New Game-Plan is a specialist company which catalyses strategic change for leading global companies, public bodies and cross-sector groups. Our approach is innovative and distinctive, fusing Knowledge, Facilitation Services, a Practical Toolkit, and Supporting Technology. Our expertise and experience is broad, across many sectors. We have particular strengths in research and innovation.

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