

Achieving operational excellence - in a polythene business



In early 2007, a major petrochemical company embarked on a key strategic project to develop and implement a global operations excellence programme.

Background

The programme aimed to reduce costs, increase plant availability and reduce waste through introducing world class manufacturing practices in a sustainable way. ABB was selected to complete an initial high level benchmark assessment at 10 of their 150 plants. The assessment identified the gaps between present and world class performance, quantified the financial opportunity for improvement and established momentum for action.

Building on the learning from the benchmark, ABB worked with the organisation to develop their global operations excellence programme. ABB were then selected as the programme implementation partner, providing ABB's leading operational excellence methodology and proven delivery experience.

ABB's approach to operational improvement is based on our i2i model. The approach delivers improvement through 3 phases of work;

- Investigate (performance, practices and opportunities)
- Implement (diagnose problems and identify solutions)
- Integrate (embed solutions into normal business)

Improvement is driven via 3 'streams' of activity, all of which must be aligned and normally progress in parallel;

- Leadership stream (business direction and focus)
- Operational stream (manufacturing improvement teams)
- Organisational stream (people and culture)

This case study outlines the success on the polythene plant that piloted the roll-out of the operations excellence programme. Management activity in the business focussed mainly on the short-term and was largely reactive.

ABB – i2i Model for Sustainable Operational Improvement



The client recognised that management attitudes and values must undergo a dramatic shift in order to develop a capacity for continuous improvement. Identifying real business issues rather than relying on perceptions was also the key to success across all work streams.

Client endorsement

Before the start of the programme:

- “Here we go again with another initiative”
- “Yet another consultant, but nothing will change”
- “One more intervention with nice words”
- “We do not have time for this now, we have real work to do!”

2 months later:

- “The process convinced me that it will change the way we do things”
- “This is exciting stuff!”
- “I have a changed mindset”
- “Exceptionally positive, I'm already seeing changes in behaviour”
- “It is difficult to say why, but it just works”
- “I changed, so everyone can change”

Benefits

Coming from the leadership stream:

- Realisation that fundamental changes to the business were essential
- Developed a radically improved five year vision of the operation
- Identified immediate changes to match the business with the market
- Managers moved to a business rather than a functional perspective

Coming from the operational stream (MIT):

- Increased grade efficiency from 90% to 95%
- 600k USD saving by reducing below grade and scrap product
- Morale boosted through improved performance

Coming from the organisational stream:

- 7 days of continuous running achieved within 4 weeks
- Record plant outputs every month since the programme began
- 25M USD of additional polythene production
- Sustainable improvement methodology is operating in the plant

Solution

ABB's operational improvement team and the client worked in partnership through the i2i model.

Investigation phase:

ABB first performed a baseline study to assess performance (business metrics) and practices ('the way we do things round here'). The assessment process includes senior management through to shop floor employees and ABB facilitates the baseline in an inclusive way so people feel involved in the assessment (rather than being audited). A strategy workshop followed the assessment where the study outputs were analysed to select the priority areas for implementation projects.

Implementation and integration phase:

The implementation projects identified in the strategy workshop were worked through the 3 streams of the i2i model. In this case the:

- Leadership stream focused on overall 'working capital'
- Operational stream (MIT) focused on 'grade efficiency' in one polythene plant
- Organisational stream focused on the reliability of a second polythene plant

With each stream, ABB assisted the client in integrating an existing leadership behavioural programme. This delivered the performance improvements and modelled the desired leadership behaviours. The ABB approach demonstrated the effectiveness of 'working towards a new way of thinking, rather than thinking towards a new way of working'.

ABB's approach differs from many manufacturing consultancy approaches by adopting a process consultation style. Instead of delivering a pre-determined solution (e.g. lean manufacturing), we facilitate client teams to investigate problems and discover the underlying issues for themselves. Clients then decide on the most appropriate, high impact solutions for their situation.

Our experience shows that this accelerates both employee engagement and passion, translating into powerful results. ABB assists the client with a range of appropriate tools associated with leading edge methodologies, including lean and six-sigma, and provides training that facilitates practical transfer to the workplace.

When the client identifies and owns both the issues and solutions, the improvements are sustainable. The behavioural shift for the client is from 'activity' to 'meaning' – this has a powerful impact on sustainability. When using i2i ABB actively works to transfer key skills to the client employees, leaving the structure and ability to deliver future improvement.



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