

## Corus - Summary

# Product development through continuous improvement

### Introduction

Corus is part of the Tata Steel Group. It is a global producer of steel and supplies world markets. Corus has used its experience of continuous improvement (CI) to win new business, develop new products and increase its market share. When Corus did not get the work for an earlier big Royal Navy contract, the company realised it needed to invest in its machinery and processes. In response, Corus has now been able to develop innovative products and CI practices to win contracts for £3.8 billion worth of Royal Naval aircraft carriers.

### Continuous improvement (Kaizen)

Kaizen is the Japanese term for CI. It means making small but continuous improvements wherever possible in the manufacturing process, leading to greater efficiency overall. CI also involves lean production – this means minimising waste and having an efficient flow of work. Corus uses the mnemonic TIM WOOD to help people remember where waste can be eliminated:

- **T**ransport – aim for ease of handling in small amounts
- **I**nventory – only carry the stock that is needed
- **M**otion – cut down on movement e.g. between jobs
- **W**aiting times – plan ahead
- **O**ver-processing – cut down stages
- **O**ver-production – use computer models for accuracy
- **D**efects – cut down mistakes.

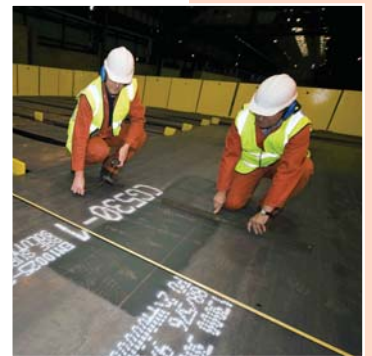
Just-in-time (JIT) is also used. This system eliminates the storage of materials so they arrive just as they are required. There are risks in this, but these are balanced against the benefits. The central point of CI is that everyone has a role to play in finding more efficient methods of working. Employees are therefore empowered to suggest and make improvements so all stakeholders benefit.

### Product development

To meet Royal Navy requirements, Corus had to develop new steel products. It used its research and development (R&D) expertise to develop the grade of steel the Navy required. Working with the client to understand requirements meant investing time and money in development before the contract was awarded. However, this resulted in Corus being able to meet the specification more precisely. The challenge was greater as the Navy altered some product specifications during the bidding process.

### Product testing

Corus had to develop a method of producing small batches of the steel for testing. It created prototypes to carry out tests and also used computer modelling to see how the steel might perform in different circumstances. This enabled it to change factors (such as steel chemistry or processing temperatures) to test the impact they would have on the finished product.

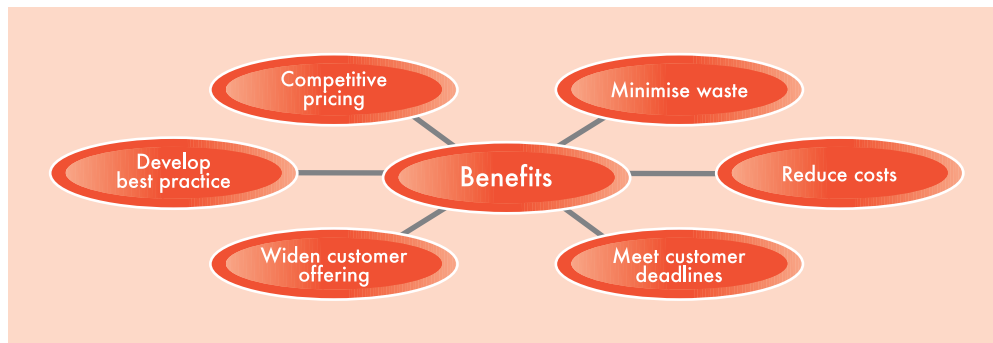


## Outcomes

In developing the new steel, Corus gained a number of other benefits:

- CI systems enabled it to develop the steel at a competitive price
- new technology made Corus more efficient
- Corus was able to meet customer deadlines.

Quality Assurance (QA) was provided by Lloyds Register, the independent body that assesses shipping materials for insurance purposes. The whole steelmaking industry also benefited, as other firms were able to adopt best practice.



## Conclusion

CI allows everyone at Corus to play a part in improving the business and therefore to share in its achievements. In meeting customer requirements through new product development, Corus has also opened up new markets. As a result, it has become a more competitive business.

