

Corus - Brief

Product development through continuous improvement

Introduction

Corus is a steel producer. It is part of the Tata Steel Group. It supplies markets around the world. Corus made a bid for a big Royal Navy contract for steel a few years ago. It failed to win the contract, so decided it needed to improve its systems. It used continuous improvement (CI) to help. As a result Corus has won a recent contract to supply steel for Royal Naval aircraft carriers worth £3.8 billion.

Continuous improvement (Kaizen)

In Japan, the word Kaizen means to make small but continuous changes in order to improve. These small changes lead to greater efficiency. Part of CI is called lean production. This means cutting down waste and making workflows more efficient. Corus uses a model called 'TIM WOOD' to help remember where waste can be cut out:

- **T**ransport – handle product in small amounts and only when necessary
- **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 of work
- **O**ver-production – use computer models for accuracy
- **D**efects – cut down mistakes.

Corus also uses a process called just-in-time (JIT). This means that materials do not have to be stored. They arrive or are made just as they are needed. This saves money. There are also risks with just-in-time. If materials are not available, customers might have to wait. Corus has to balance the risks against the benefits. In CI everyone has a role to play in looking for better methods of working. Employees have the power to suggest changes and all stakeholders gain.



Product development

To meet the Royal Navy's needs, Corus had to develop new steel products. It used research and development (R&D) to provide the grade of steel the Navy needed. This meant it had to take risks. It had to invest time and money before it had won the contract. The navy changed some product specifications during the bid process making the challenge for Corus even greater. Corus used its R&D expertise to make changes so it could deliver the right products.

Product testing

Corus needed to test the steel without making a lot of it. It developed a method of making small batches of the steel to test for strength and toughness. It used computer models to see how the steel might perform and react in different situations such as heat. These tests made sure that the finished steel would meet the Navy's requirements.

Outcomes

Corus gained other benefits from the process:

- CI helped it to produce the steel at a competitive price
- new technology made Corus more efficient
- it could use the new development to meet other customers' needs.

Quality Assurance (QA) for the new product was provided by Lloyds Register. This body assesses shipping materials for insurance. The whole steel industry also gained, as Corus shares its developments with other firms so they can adopt best practice.

Conclusion

CI allows everyone at Corus to help improve the business. All employees are part of the process. Corus has produced new products which have opened up new markets. This has made Corus more competitive and increased its market share.

