

MDC is a successful and innovative multinational company which manufactures and distributes a range of sophisticated medical devices used by surgeons in the operating room. Individual unit value for MDC's product range is high and begins at €2,000 for some standard, widely used devices. Products for the European market are manufactured at two plants, one in Ireland and one in Poland. Other products and peripherals are also sold under the MDC brand and these are shipped in the first instance to both of the European manufacturing plants, before being moved downstream in the MDC supply chain. From both manufacturing plants the entire product range is then shipped to some 15 warehouses located across Europe. These 15 warehouses act as hubs and feed a further 40 warehouses, located mostly near the large urban centres across Europe. It is from these latter 40 warehouses that MDC's sales representatives and distribution agents draw their inventory.

MDC faces a range of challenges. Advances in medical technology and an expanded product range are driving business growth. Many customers (i.e. hospitals) want improved service solutions centred around increased product availability combined (paradoxically) with lower levels of stock holding. Indeed, many users are demanding a solution whereby a number of different variants of a particular device are readily available for immediate use, but whereby payment is only made for the particular variant actually used during the operation. Competition in the marketplace is increasing with some competitors beginning to offer such solutions. Inventory turnover is however problematic for MDC's European operation and has steadily fallen to five turns per year (the industry norm is about 10) resulting in increased inventory in the system, while issues with product obsolescence have also arisen on a number of occasions. Stock-outs at various stages along the chain are also becoming common (especially in the case of patients ready for surgery and requiring a specific device immediately in order for the surgery to go ahead) with the resulting need to expedite inventory direct to users from either manufacturing plant.

## QUESTIONS

- Could you recommend a logistics strategy that could enable MDC in Europe to improve service to its customers and simultaneously reduce the total inventory in its European network?