

# Solution proposal for increasing traceability and reducing delivery errors

Degree programme: MAS Medical Technology

The new Medical Device Regulation and the Food and Drug Administration regulations require each medical device manufacturer to increase their efforts regarding medical device traceability throughout the supply chain. Delivery errors are representing a special challenge for manufacturers.

The authors have investigated, for a worldwide operating medical device company, what kind of traceability procedures and technologies are currently in place to fulfill the traceability requirements.

This medical device manufacturer operates out of distribution centers. Every year millions of implants, medical instruments and other medical devices are being shipped from locations to affiliates and customers worldwide.

From the delivery of the products, their storage to re-shipment, numerous factors can lead to incorrect deliveries. Be it that products are missing in a delivery, too many, or the wrong products are sent, post-processing and correction of such incorrect deliveries cause high costs every year, and are representing a violation of traceability requirements.

With this paper, the two authors provide a solution for the reduction of incorrect deliveries, as it appeared that several locations are struggling with incorrect deliveries. The proposed solution can easily be applied to other supply chains of other medical device manufacturers.

After an initial search and data acquisition, the authors contacted and interviewed various experts and process owners. Afterwards, they analyzed the acquired data and the existing processes and worked out a solution including a risk analysis and a business plan. In addition, they asked a solution provider to submit an offer for the implementation of their proposed solution for one site.

The RFID (radio-frequency identification) technology was identified as one that can be implemented quickly and efficiently without provoking a huge disturbing change of the current supply chain methods. RFID is a well-known and approved technology in other industries such as the automotive industry and has recently been announced at a new kind of grocery stores where no checkout is required.

By implementing RFID technology within the medical device industry, the authors found out that it has the potential to significantly improve the way on how medical devices are tracked and traced throughout the entire live cycle of a medical device.

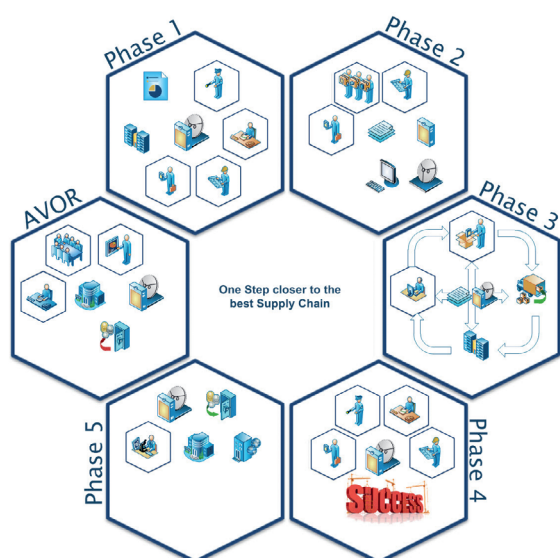
With this paper a high-level concept has been formulated which can be used to implement the proposed RFID solution to any site of the manufacturer.



David Escher  
+41 79 247 60 02



Lukas Meier



Global concept to implement RFID technology