Case Study I

Company:	Philips Healthcare
Location:	Best, The Netherlands
Product:	Diamond Select Allura Xper FD20/10 Interventional X-ray system
Туре:	OEM
Remanufacturing Maturity: Experienced	
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Philips Healthcare is part of the parent company Royal Philips. Philips Healthcare seeks to improve lives, through meaningful innovations developed in collaboration with clinicians, to improve quality of care and patients' lives (Annual report, 2014). The company is a global leader in the provision of cardiac care, acute care and home healthcare. It sees refurbishment as a means to unlock new business opportunities in innovation and growth.

Motivation for Remanufacturing

Due to the financial effects of healthcare reform, maintaining profitability is a top concern. One solution is to differentiate from competitors with advanced systems and thus increase market share. Doing so can, enhance reputation, and keep patients close to home. But this comes with a price. Today's mandates to manage healthcare costs make total cost of ownership and return-on-investment top concerns. Philips' Diamond Select program meets these requirements, giving you advanced refurbished medical systems at an affordable price. Refurbishment is a win-win across the whole value chain. It is about addressing customer needs and not simply upselling new products.

Product Description

The Diamond Select Allura Xper R7 FD20/10 Interventional X-ray system (Fig.11) is an upgraded system with a maximal reuse of material (around 80%) which has been fully approved and released according to internal and external standards.



Fig. 11 Diamond Select Allura Xper FD20/10 Interventional X-ray system

Design for Remanufacturing

Philip's Healthcare seeks to close material loops by adopting a platform design approach, product upgrading strategies and parts harvesting at the point of refurbishment. A key design approach for Philips Healthcare is designing for reliability in the first place and this is evident in the high residual value of the product. It has developed and approved an upgrade system which is based on material reuse.

Environmental Benefits

Through its system upgrades, Philips Healthcare can reduce material consumption by up to 80%, improving its resource efficiency and reducing overall waste, in essence decoupling its material use from its business activities.

Economic Benefits

Refurbished Systems are sold for 60 to 85% of the equivalent new system price, depending on the generation of the product and the developments of its life cycle. Refurbishment can be strategic from a marketing and market segmentation perspective. In addition, in this case, the system upgrade approach saves costs by up to 50% on the upgrade bill of materials. The upgrades provide a means for new revenue through new sales and service contracts.

Social Benefits

The Refurbished Systems can help healthcare providers to enhance their care capacity to a larger patient base because the capital expenditure is lower or can be minimal if considering business models like leasing, renting or pay per scan. It is about access to the technology and functionality of Philips systems, rather than the ownership of the systems themselves.

Business Models

The product's residual value is capitalized on through a trade-in mechanism offered to clients. Philips sells or leases a range of refurbished good to clients, with a follow-up customer care package and a full warranty. Through refurbishment different value propositions can be offered with different types of technology at different prices. The business proposition centres on making high quality equipment available at an affordable price, for the same warranty as for new equipment.

Future Challenges

In general, refurbishing can benefit from better customer perceptions of refurbished goods. There are also trade barriers that limit the potential for refurbishing; refurbishing requires being able to globally move goods because supply and demand may not be in the same country and this is hindered by the lack of a free market for pre-owned goods. Future material scarcity is also an issue, such as copper, which has medium-term scarcity predictions and helium, which is used as a cooling agent and which is plentiful but difficult to isolate.