



One of the Secondlife mobile CT trailers, equipped with Canon Medical's Aquilion Prime SP. The mobile trailers have the same environment as a hospital: a CT examination room, a console room, dressing rooms, and a washing area. Everything inside the trailer is connected to the hospital network and archive.



VISIONS spoke with Johan Vochteloo,
Senior Manager Secondlife
at Canon Medical Systems Europe.

Secondlife
CERTIFIED REFURBISHED EQUIPMENT

Giving Used Medical Equipment a Secondlife

What happens to Canon Medical's demo equipment that doesn't sell? Is it locked forever in a warehouse, its potential for improving healthcare slowly fading away? The answer is no. Canon Medical Systems gives it a second life.

In October 1984, Johan Vochteloo started working for Canon Medical Systems in logistics and later moved on to manage the European demo equipment. In this role, he gained a unique insight into the demo equipment's lifecycle that laid the premises for a brand new project.

"We had a huge warehouse, full of outstanding demo equipment. There was an enormous amount of equipment stored. Part of it was able to be sold, the rest was returned to the European Head Office. I thought: what am I going to do with all this excellent equipment that hasn't been sold yet? I have to sell it!" Johan remembers.

He couldn't sell already used equipment as brand new though. He had to sell it differently. First by cleaning it up. But customers expected something more and better. They would expect a full refurbishment. And just like that, the idea for Secondlife was born.

A daunting task

In 1998, Johan settled to his new task with tons of enthusiasm, but little idea of how much effort he would have to pour into the new scheme.

"I just saw the tip of the iceberg, not the abyss of work that lay below the surface. Working in refurbishment means to comply with an enormous set of rules and regulations, especially in the medical area. You have to be 100% sure that what you refurbish is 100% correct," he said.

As all Secondlife systems are refurbished according to the highest industry standards including the COCIR Good Refurbishment Practice. The Secondlife refurbishment program is a quality-controlled process and certified according to ISO 13485:2003, an industry first. Our Secondlife systems will be delivered with the latest applicable software upgrades, the systems can be configured to the customer wishes, and will include one full year of warranty.



New refurbishment center at Canon Medical Systems Europe in Zoetermeer, the Netherlands.

Refurbishing medical equipment demands a lot of work around regulations and legal aspects. Tackling these issues inside Europe, where a myriad of rules and regulations exist on the topic, is something of a Titanic fight

“I have a sort of Bible, in which every piece of equipment that qualifies as refurbished equipment is defined. We just had to write refurbishment manuals for each type of equipment we were using, besides prepping the equipment itself.”

Rules and regulations change over-time, and so do systems. The task of writing and updating manuals can thus seem endless. “You have to write your manual over and over again.”

It took more than ten years to get the baby on its feet. But it did. The name Secondlife was branded a year later, in 2009. Today the operation is a complete success and Secondlife equipment sells everywhere across Europe.

Chasing for space to accommodate the equipment shipped back from all over Europe, Johan moved the service from Zoetermeer (the Netherlands) to Belgium and later on to Denmark in 2009, and recently back to the Headquarters in Zoetermeer, the Netherlands again. It took six months to get the current facility up and running.

The new facility contains several areas dedicated to each step of the process; containing an inbound area where the dismantled materials will be received and checked on completeness, and damages. A cleaning and disinfection area, where all units will be cleaned and disinfected before it is handed over to the engineers.

We have two CT refurbishment booths and one multi-modality booth where we can handle CT's and larger X-Ray models including interventional ceiling mounted systems. The multi-modality booth can also be used for trainings and to receive customers to inspect their new system. For Ultrasound we have a dedicated area where we can handle three systems on the same time, where every engineer has his own work facility.

When the systems are ready they will be moved to the outbound area where the system will be packed and crated for shipment and the necessary paper work will be added.

Canon Medical's Secondlife team now has two CT engineers, three Ultrasound engineers, two mechanical engineers, two account managers and one trade desk coordinator to properly refurbish its equipment fleet across Europe.

A stepwise approach

The refurbishment process unfolds in several steps. First a technician carries out an inspection of the system, orders the parts that are missing, and then starts the disinfection and cleaning process. Meanwhile another engineer may also work on hacking



“Canon Medical Secondlife guarantees equipment good as new, only more affordable.”

*Johan Vochteloo, Senior Manager Secondlife
at Canon Medical Systems Europe.*



a new system, photographing and labelling. An engineer follows up to revamp the system. Only one engineer is responsible for the same piece of equipment, including testing after refurbishment, to ensure that the job is done thoroughly.

The average time for refurbishing a CT system is three weeks. But this time depends on how fast problems are solved and on the condition of the system. “Some systems have hardly ever been used, others extensively. No matter of the condition of the systems every system undergoes and intensive process. On an average, Canon Medical refurbishes three CT systems and ten Ultrasound systems a month in Europe. The refurbishment center also takes care of the technical health and preparation ultrasound demo pool, which can run up to 50 units per month.

A lot of the equipment that goes through the refurbishment process of Secondlife comes from demo in the clinical setting, but a big part also comes from the trade desk, which remains the heart of Canon Medical’s business.

Hospitals that renew their medical equipment needs to have their older systems dismantled before anything new can be installed.

The Secondlife team has a dismantling procedure in place, it concerns the site planning were it describes from the inside to the outside of the building were equipment is located and what is needed to remove the system in the most efficient way without any disturbance for the hospital staff and patients.

During the process and before disconnecting the system from the power a technical check will take place according to a Secondlife procedure to detect if the system is still in full function order. Sometimes equipment is just too old or damaged to be refurbished. Equipment older than nine years for example, does not qualify for Secondlife anymore. For the older equipment we will find another destiny somewhere in the world or will be used for parts to maintain older units which are still going strong but needs to be maintained.

Secondlife Mobile Solutions

The lapse of time between dismantling old equipment and installing a new system can be a hassle for customers, who still needs to deliver healthcare to their patients. To bridge new equipment installations, temporary high workloads, or screening programs, we provide short-term installations and a wide range of mobile solutions through our Secondlife refurbishment program.

Our Secondlife mobile CT trailers are equipped with the newest equipment and have the same environment as the hospital: CT examination room, a console room, dressing rooms, and a washing area. Everything inside the trailer is connected to the hospital network and archive.

The truly multitasking environment of our mobile CT scanners makes high patient throughput easily achievable even in a mobile setting, without compromising on patient care, workflow or image quality. On-board facilities ensure you have everything at your disposal. Ensuring the lowest possible radiation dose to the patient, whilst maintaining the optimal level of image quality, we can offer CT systems with a comprehensive package of dose reduction features including iterative reconstruction algorithm (AIDR3D) and Active Collimation.

The trailer has become very popular, Johan explained: “Instead of having to wait six or eight weeks until the new scanner is installed, as when a system will be replaced the hospital will take the advantage to remodel the examination rooms, we can offer a temporary solution. We position the mobile CT trailer directly in front of the hospital so that customers can keep on scanning patients just like on any other day.



Unforeseen applications

An increasing number of customers have grown fond of the Refurbished Equipment Secondlife, which guarantees equipment good as new, only more affordable.

An unsuspected niche has emerged on the market and veterinarians are increasingly relying on refurbished equipment to examine their patients. These customers traditionally have thinner budgets for purchasing medical imaging equipment, thus have to find innovative solutions to meet the growing demand for healthcare from pet owners.

“People spend more and more money on their pets’ health - sometimes even more than on themselves. Refurbished diagnostic equipment is a very popular program within the veterinarian world the demands and needs from veterinarians and their customers brings the diagnostic requirements to a higher level we see that the investments by veterinarians and groups are rapidly increasing. When veterinarians refer their patients to a specialist, for example a neurologist or a cardiologist, they call a second line centre, where dedicated imaging equipment is available. Second line centres are a booming business and deserve more attention in the future,” he said.

Another potentially interesting niche is horse sports imaging. These specimens can cost hundreds, thousands of euros, and their typical injuries - after jumping or racing - require the best diagnostic equipment. Even before they buy these expensive horses, owners have to be 100% sure that they are in top shape, especially the neck, back, and legs are critical which needs full attention as these are the most delicate parts of the animal.

“The veterinary business is a very fast growing market and we adapted our company strategy to become a major partner in this field. Our clinical solutions are designed to be adapted from small domestic animals up to horses. Especially in this last one we are very successful based on our CT’s with the largest Bore in the market and the extremely high image quality in Ultrasound.” said Johan.

“I believe we will be in a wonderful position. In their testimonies, customers say they are very happy, very surprised about the quality of the refurbished equipment. They never expected the equipment to work that well. They say it looks like brand new. This is a big compliment for the staff but not a moment to rest as there is always room for improvement and efficiency. //

