CARTIMAGE MEDICAL SAS

One line pitch:
Imaging for Preservation in Surgery

Market Analysis:
Surgeons now focus on preserving the original tissues rather than resorting to tissue removal or implants. This trend of conservative surgery requires improvements in per-operative perception and guidance, so that surgeons can pinpoint their targets, and assess whether a conservative technique will succeed. Minimally-Invasive Surgery needs to be "Augmented" with new, realtime information to answer surgeons’ specific needs for increased perception. For example, half of the world’s 2M knee meniscectomies could be transformed into meniscal repairs (to keep joint stability and reduce the risk of OA), given the proper perception tools to reduce uncertainty as to whether repair would succeed.

Value proposition:
Our perception devices provide endoscopic surgeons with increased perception to reduce uncertainty and guide surgical procedures. These multi-purpose sensors can be enhanced with navigation and 3D-reconstruction. The first sensors are high-frequency endoscopic ultrasound and photo-acoustic probes, which allow surgeons to precisely identify whether tissues are healthy, damaged but repairable, or must be removed. It also gives the ability to determine a least-damaging path to remove certain lesions in organs such as lungs, without damaging the surrounding tissues. They streamline the surgeon’s decision process and improve patient information.

Business Model:
We will manufacture full imaging systems (imaging tower + hand instrument + specific sterile sheaths + software) with a common basis (imaging tower + software) and application-specific instruments. In these applications, our imaging device accompanies a range of application-specific instruments to make them more efficient and improve their outcome. Our business model is therefore to market our device through MedTech or BioTech partners selling these therapeutic tools. For example, our arthroscopic photo-acoustic probe helps surgeon to improve their outcome when using meniscal suture hooks in the knee. Our offer has both machines (tower, instruments), and consumables (disposable sheaths).

IP and Regulatory situation:
We hold an exclusive licence for the US 20102562504 patent from Université Grenoble Alpes. It protects the technical basis of our products. We have also acquired option rights for an exclusive licence on improved ultrasound measurements for arthroscopy from Charité Universitätsmedizin in Berlin, and are in the process of submitting additional technical patents regarding the surgical process involved. We are completing our QMS for ISO 13485 certification in 2018 and CE marking in 2019.