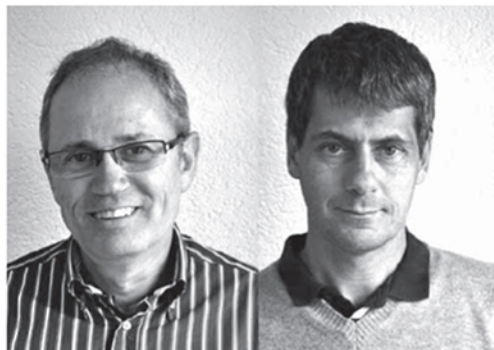




A digital system advances the detection of breast cancer

by Sophie Mastelinck Bass

For women over 50, the mammography is the best way to detect breast cancer as early as possible. Since 1999, the French-speaking cantons have implemented routine screening for which an SME from Fribourg brought considerable innovation.



Patrick Anthamatten and Jean-Marc Jutzet, CDI's cofounders

CDI - designer of applications and systems

The company was founded in 1994 by the two EPF computer scientists Patrick Anthamatten and Jean-Marc Jutzet. CDI (Conseils et développements informatiques SA) is active in the development of applications, websites and in the management of IT infrastructures. With its 24 employees, CDI counts among its customers several book specialists (payot.ch, Fnac Suisse, e-readers.ch) as well as medical laboratories for

which they developed tailor-made web applications and a secured transfer system for test results. It is in the context of its experience in the medical field that CDI created a new software particularly suited for the screening of breast cancer.

Jean-Marc Jutzet. The invitation, 4 X-rays at each examination, 2 to 3 examinations of the X-rays by different doctors, the sending out of the diagnosis and finally the archiving of the data until the next check up imply a cast-iron traceability. The system created by CDI allows the complete digitalisation of the woman's file. Therefore, it represents an extraordinary and unprecedented breakthrough for the execution of these tests which gain in efficiency, speed and reliability. «Until now, 9 cantons have already adopted it through more than 50 connected radiology centres. 60'000 women have had a mammography thanks to this new system - with an estimated increase of 20% per year, to reach 200'000 annual examinations», affirms Patrick Anthamatten.

A project supported by Eurostars

CDI's managers are at the origin of an operational system - for data processing and administrative management - with a high capacity for innovation and a real commercial potential. They rapidly identified a European market which is a bit slow in getting digitized. «We believe that this system perfectly fits in the framework of a Eurostars project and that it meets all the required criteria. Besides, it has already proven its value and is successfully used in Switzerland. Furthermore, the great flexibility of the system allows us to easily consider a generic version that could be adapted to other markets, whether in Europe or in the Middle East. Sesam, one of our partners in this project, is based in Turkey and works just like us in the medical field of laboratories.»

Next steps

«Now that the Eurostars project has been approved, we have two years to adapt our system to a different scale than Switzerland», states Jean-Marc Jutzet. «This means that we have to reduce the costs of the screening platform, make the software more extensible through the necessary technical adjustments, and finally develop an even stronger system.» And Patrick Anthamatten adds: «If these aspects are partially supported by our partners (among them the College of Engineering and Architecture of Fribourg and Sesam), CDI focuses on the commercial launch of the system. In the numerous countries where the routine screening has already been operational for a long time, we have to find the partners who can introduce a digital process and digitize the existing system.»

For further information ...

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A nationwide screening

Since 1987, most European countries use this screening with pioneers like Sweden, the Netherlands and England. In Switzerland, the detection of breast cancer is organised under the aegis of swiss cancer screening. If all the French-speaking cantons introduced programs since the 2000s, various German-speaking cantons joined them as of the

year 2010. As a result, today, the cantons of St. Gallen, Thurgau, Graubünden and Bern also offer routine screening. In the framework of a mass screening program to detect possible breast cancer, women aged between 50 and 70 are invited every two years to have a mammography. Knowing that in Switzerland this cancer is causing the death of 550 women between 55 and 75 each year, early detection has already reduced this proportion by 20%.

An innovative system "made in Switzerland"

«A routine screening mammography induces technical and management constraints that are mainly related to the volume of processed information», explains

Screen capture of the radiologist's reading report developed by CDI for swiss cancer screening