



# LABORIE Software

Refreshing the product line

**LABORIE medical devices are used for progressive diagnostics and treatment solutions in urology, urogynecology, colorectal and gastroenterology domains.**

LABORIE has embarked in an incredible journey to refresh their product portfolio. This endeavour includes leveraging the latest proven technologies and supported tooling to reduce the technical level complexity.

The R&D organization is geographically distributed between Canada and The Netherlands, an efficient organization of teams and skills has proven to be essential.



## Role of ICT Healthcare

ICT Group has been integrated in this R&D renewal project. The following elaborates on the topics in which ICT Healthcare was involved.

### Software architecture

The primary software architect for the project is a contractor from the Healthcare unit of ICT Group. He works with the stakeholders and the teams to define an extensible and maintainable architecture that supports LABORIE in its current and future business objectives.

### Scrum

ICT Healthcare has provided scrum training for the people involved in the R&D project. In addition, resources are integrated on the development teams that support the implementation of scrum. Along with a strong architecture, it has led to multiple development teams working in different time zones. During every sprint, the teams were still able to add significant value to the product.

### Capacity

LABORIE has utilized ICT Healthcare to onboard additional resources quickly to help develop new features and improve the quality of the product. The Healthcare unit has a large pool of qualified people which is able to integrate quickly in order to help increase the productivity of development teams.

### Tooling

ICT Healthcare provided guidance on configuration and setup of development tools such as Visual Studio Team Services (VSTS). VSTS is a cloud based solution for organizing development work, requirements, testing and test results.

### Processes

The Healthcare unit of ICT Group provides feedback and input towards LABORIE's internal development processes and how to align them with the regulatory requirements for medical devices. The ICT Healthcare unit has a pool of people with a strong knowledge of standards like IEC 62304 (medical software development), ISO 13485 (quality management systems) and ISO 14971 (risk management).

### Knowledge sharing

ICT Healthcare contractors have an up-to-date knowledge on current technologies. While working with their permanent team members this knowledge spreads and increases the knowledge base of the entire team. In the end, it thereby increases the effectivity of the team and quality of the product.

### Keywords

Visual Studio, C#, .NET, Visual Studio Team Services (VSTS), Entity Framework, Architecture, WPF, MVVM, Scrum training, Scrum coaching, Medical software development (IEC 62304), Quality management systems (ISO 13485), Risk management (ISO 14971), Failure mode effect analysis (FMEA)

## PROJECT RESULT

ICT's involvement in the project has resulted in improved processes and development approaches as well as numerous additional features being developed. The renewal project continues to grow and improve the product every sprint. Further, due to the use of modern approaches the product is changing to a fresh and modern look when compared to the previous releases.

The change in architectural approach is enabling the team to more quickly add new functionality or to adjust what has already been created based on feedback from the stakeholders. The scrum methodology enables the development to accommodate feedback throughout the development process.

LABORIE and ICT Healthcare continue to work closely together and have proven to be a good fit.



### About LABORIE

LABORIE takes great pride in improving patients' lives through innovations in pelvic and gastrointestinal health. Founded by a visionary, today's team remains committed to developing, designing and distributing next-generation solutions. Working closely with clinicians, universities, and non-profits around the globe, we make a difference worldwide.

[www.laborie.com](http://www.laborie.com)

