

# Case Study



## Company Profile

Manufacturer of laboratory equipment and reagents for cell and molecular research („Magnetic Cell Separation“)

## Technologies



## It's all about productivity - MACS Link Project at Miltenyi

### Challenges

- Proprietary software on individual instruments without a common technology stack and without direct connection to each other
- The comprehensive laboratory workflow cannot be automated without further ado

### Project Goals

- Development of a modern, secure platform for data exchange and storage and documentation of experiments and test series
- Development of an app that allows the operation of the laboratory instruments from any device and any location

### Solution

- Microsoft Cloud technology Azure as secure and scalable platform solution
- Development of an app with the cross mobile framework Xamarin
- Fast and easy use of the app with single sign-on and a simple user interface

### Benefits

- Simplified use of laboratory equipment and improved capacity utilization
- Development of new productivity potentials
- Working from anywhere and with any device
- High usability improves the acceptance of new technologies

## Cloud based biotech innovation

Miltenyi Biotec manufactures laboratory equipment that is used in cell and molecular research.

Innovations in high tech industries often take several years until they're ready for the market. The biotech company Miltenyi is convinced that Industry 4.0 and the new cloud technologies offer a completely new innovation boost for business development and was looking for an IT-partner with a high technological competence in the field of mobile and cloud.

In cooperation with novaCapta, Miltenyi developed a state-of-the-art technology which optimizes the laboratory processes for the MACSQuant® Flow Cytometer. The MACS Quantify app, which runs on mobile devices such as iPad or Android tablets, controls laboratory instruments via the cloud.

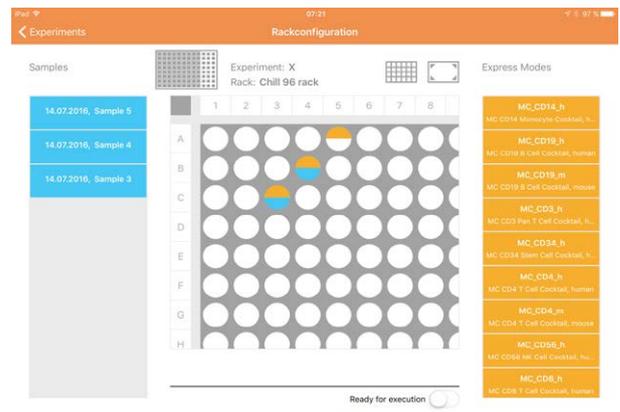
## Understanding the process – and make it digital

Processes in the laboratory are complex and lengthy. Employees have to prepare the rack of samples manually. Next, they have to configure the instruments which analyze the samples.

Finally, the documentation of the experiment is completely decoupled from the lab devices and has to be done manually. It's exactly here where Miltenyi changes the way of work with cloud based apps. The apps simplify the handling, monitoring and documentation of the experiments.

## End of innovation not in sight

The apps run as a SaaS solution and were developed by novaCapta on the cross-mobile platform Xamarin. Xamarin saves time and money: Instead of developing an app for Windows, iOS and Android each, a basic code is developed for all three operating systems. This reduces development costs by a third. Hosting in the MS Azure Cloud means that all data for experiments and user data are safely encrypted and can still be accessed from anywhere at any time. The multi-client solution, implement-



ed with Azure B2C AD, also offers long-term perspectives for the development of the business area. Based on this, there are no limits to the imagination regarding new services: Miltenyi now has completely new ways of analyzing data and new ways to increase productivity in laboratory workflows. And with the apps, Miltenyi drives

 **“With the MACSQuantify App Miltenyi, we take another step into the mobile world. With the support of novaCapta in the area of Azure and Xamarin technology, we now have an innovative app that meets the highest demands for performance and usability on all target platforms.”**

Frank Versmold - Manager IT Mobile & Cloud

Employees can check the status of the test series during the ongoing process from anywhere and anytime. In addition, the data of the experiments and the associated documentations are stored in the user profile of the employees. That way, the cloud based data storage makes it possible for notifications and current status updates to be called up at any time.

their business into a new area which is more focused on service and usability for their customers. Which is why they established the new “Mobile & Cloud” department at Miltenyi an equivalent to the SAP or Infrastructure department. And novaCapta is the partner that supports Miltenyi on their way into the cloud with Microsoft technologies.

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