

CELEBRATING EIGHT YEARS OF SECURECELL AG AND GETINGE APPLIKON COLLABORATION

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Together, the two companies look back at eight years of joint success having provided bioprocess solutions to hundreds of customers worldwide

Securecell AG and Applikon Biotechnology B.V. (today Getinge AB) celebrate the eighth year of successful collaboration. Since the beginning of the journey, a light version of Securecell's powerful process information management software Lucullus® (Lucullus® Lite) with basic data logging and evaluation functionality is provided with every sold Applikon controller. The synergistic technologies so far offered an affordable and established bioprocess solution to around 800 customers with several thousand connected Applikon reactor systems worldwide.

How did the collaboration come into being?

Back in 2013/14, Getinge Applikon received increased customer feedback asking for a software solution with more elaborated data logging and evaluation capabilities than BioXpert, which was the standard software for Applikon controllers at the time. The reprogramming and adaptation of the BioXpert software were not in Applikon's strategic focus; thus, Getinge Applikon was looking for possible industry partners to not reinvent the wheel. Consequently, John "Chory" Chorazyczewski, former president of the Applikon Biotechnology Inc. (USA), was leading an investigation and evaluation of promising existing bioprocess software solutions for Applikon controllers.

In the period of evaluation, Securecell and Getinge Applikon had a major big pharma company as a joint customer, whose scientists gave a positive testimonial on the use of Lucullus®-empowered Applikon bioreactors. After evaluation, John Chory and his team were convinced by the robustness and flexibility of Lucullus®, especially its adaptability to customer needs and its good reputation in a relatively broad customer base as Lucullus® was launched as a platform already in 1995. Yet, Lucullus®, as a complete software package greatly exceeded the basic request of Getinge Applikon customers to log and evaluate data and, at that time, was only available for Linux operating systems. After initial discussions, Securecell and Getinge Applikon agreed on an easy-to-operate Lucullus® Lite version suitable for Linux and Windows operating systems in June 2014 with the optional possibility of an upgrade.

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Mutual benefit of the collaboration

With the established solution, Getinge Applikon could ultimately offer an established SCADA package with all their reactor control systems worldwide while Lucullus® was introduced to South America, India, and China, areas that were not reached by Securecell at the time.

Working together gave additional insights into each-others worlds. Getinge Applikon learned about the complexity of integrating multiple vendors while Securecell learned about the challenges of distributing and supporting a product globally. Furthermore, based on requests and feedback from Getinge Applikon customers, several new features were implemented in Lucullus®, greatly enlarging Lucullus® portfolio of communication drivers. So Getinge Applikon and its customer requests have made a significant contribution to further developing Lucullus®.

Success Stories

Over the years around 800 installations around the globe were realized ranging from a few to hundreds of Lucullus® Lite-empowered Applikon reactors. Of these installations, approximately 200 evolved into complex installations with upgraded Lucullus® Lite versions. Nowadays, every of the top ten pharmaceutical companies (which cannot be explicitly named here) has at least one installation comprising Lucullus® Lite-empowered Applikon reactors, showing the benefit of the synergistic technologies for advanced manufacturing.



Pictured above (left to right): Erik Kakes (former global sales marketing director Applikon B.V.), Carlo Andretta (founder and CEO Securecell AG), and John Chorzyczewski at the ESACT 2017 in Lausanne CH, after the first three years of successful collaboration.



Timo Keijzer;

director of product marketing
at Getinge Applikon

"Due to all the advancements in the development of new medicines, powerful software solutions have become essential. To be able to store and analyze the data from bioreactor systems but also from advanced sensor measurements, comprehensive and overarching software solutions are needed that can handle the data and help with the interpretation."

A more specific example of a great shared success story is a large installation at the Delft University of Technology (Netherlands) close to Getinge Applikon's headquarters, where more than 30 Lucullus®-empowered Applikon reactor systems are running and scientists are using them for highly advanced process operations and calculations (for more information see link below).

After such a long time of profound collaboration, both companies also vouch for each other's products.

A showcase example was the Amyris project, where Getinge Applikon was the lead finder for Securecell, resulting in a Lucullus® installation that covers the entire Amyris facility at Emeryville, California (for more information see link below).

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The potential of Lucullus®

Applikon bioreactors along with the Lucullus® Lite brought data logging and visualization to a new level, and thus data integrity around Applikon bioreactor systems. With a simple software update, Lucullus® Lite can be upgraded to the standard and even advanced version unlocking the complete comprehensive capabilities of Lucullus® to integrate data and workflows in typical lab spaces. The standard version allows implementing versatile process control recipes in bidirectional communication with bioreactor systems to automate bioprocesses. The advanced version further adds the planning workflow for seamless preparation of whole process groups and integrates sample-based analytics for timely retrieval of common analyzer data. The Media Kitchen is in our current licensing another optional independent add-on digitalizing process preparation aspects. These license types specifically add additional functionalities to the basic Lucullus® Lite version. Thus, Lucullus® holds basic SCADA as well as unique pre- and post-process running functionality.



Carlo Andretta;
founder and CEO of Securecell

"Getinge Applikon has helped us to popularize Lucullus® worldwide and to bring it to application in hundreds of research laboratories and production facilities."



Arthur Oudshoorn;
former managing director at
Applikon Biotechnology

"Lucullus® adds comprehensive functionality on top of hundreds of Applikon controllers worldwide."

Outlook

In 2020 Getinge acquired 100% of the shares in Applikon Biotechnology B.V. from Applikon Biotechnology Holding B.V. with full integration of Applikon from 2022 onwards. Getinge is a global medical technology company, founded in Sweden in 1904. The company provides equipment and systems for healthcare and life sciences. The acquisition of Applikon Biotechnology B.V. made Getinge a leading company in the fast-growing area of advanced bioreactor systems for biopharmaceutical production and research. Also after the acquisition, Securecell's partnership continued, showing the value of Lucullus® for Applikon reactor systems, the profundity of the collaboration, and the good consensus from which customers all around the world can benefit.

The two companies combine complementary skillsets i.e. hardware and software experts, providing excellent customer support for efficient workflow implementation. Additionally, with the ongoing automation and digitalization of biopharmaceutical processes around bioprocessing 4.0 production concepts, also complex software implementations are supported and consulted by Securecell's automation and digitalization experts. Securecell and Getinge are looking forward to a bright future of joint opportunities and working together to determine the needs and generate the tools to support them. Together, we provide a greatly experienced, transparent, and concerted team of bioprocessing experts to support your company on the digitalization journey ahead.

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Additional Information

An automated bioreactor solution | Link to TU Delft Collaboration

<https://www.getinge.com/int/insights/articles/research-laboratories/automated-bioreactor-solution-tailored-for-the-next-generation-of-science/>

Lucillus® empowers over 100 bioreactors at Amyris | Link to Success Story

<https://www.securecell.ch/article/lucillus-empowers-over-100-bioreactors-at-amyris>

Applikon Lucillus® | Link to YouTube Video

<https://www.youtube.com/watch?v=EgWJuUI-KDQ> (promotional video 2016)