

The background of the top half of the page is a photograph of two scientists in a laboratory. A woman in the foreground is wearing safety goggles and looking intently at something off-camera. A man in the background is also wearing a lab coat and looking down. The image is overlaid with a large, semi-transparent blue circle on the left side.

Case Study

Accelerating medicines development through the lens of Lumi

Company Background

CatSci is an award-winning innovation partner leading the way for environmentally and economically sustainable manufacturing processes for the pharmaceutical industry. They are committed to breaking down the silos in drug development to accelerate the delivery of life-changing therapeutics to patients in need. Driving medicines development through technology, CatSci are helping pharmaceutical companies of all sizes across the globe.

The challenge

Enhancing their processes

CatSci are passionate about embedding a continuous improvement culture to ensure their processes are as efficient as possible. However, they found that some standard procedures, such as monitoring experiments, were time-consuming, and they wanted to free up the hands of their scientists.

Monitoring experiments is a lengthy task; alongside the monitoring process, there is also the necessary protective process to consider every time a scientist goes into the lab.

CatSci recognised that they could further streamline their monitoring processes. They also wanted to gain further insight into their experiments as, when leaving experiments overnight, big changes can happen. Understanding when it is that they happen is a significant piece of the puzzle that they wanted to offer to their customers.



The solution

Accelerating scientific discovery through computer vision

Through local introductions in Cardiff, the team behind Lumi met CatSci's CEO, Dr Ross Burn. Dr Burn is passionate about aligning CatSci towards the fourth industrial revolution: CatSci 4.0 and becoming a "Digital First, Intelligent Automation Next" company. CatSci saw that Lumi presented a huge opportunity for their organisation and the industry to transform the process in which medicines are created and developed.

Knowledge sharing

Knowledge sharing is essential between the organisation and their customers. "CatSci is incredibly customer centric. Our customers want to know each detail of their experiments, and we want to offer them as much insight as possible about their progress. The technology that Lumi offers allows them to get right into the lab with our scientists." Dr Sam Whitmarsh, Director of Digital Transformation at CatSci, says.

Lumi is helping CatSci with this integral and important part of their work, allowing for accurate and streamlined knowledge share.

Lumi has also worked to enhance CatSci's reporting process so customers can gain even more value

from their services. Customers can now see what's happening in experiments, with real-life visual rather than words alone. Thanks to Lumi, CatSci's customers can see the progress of their processes, and they get excited by the video too!

Knowing the 'when'

Through Lumi, the scientists of CatSci are able to gain more precise knowledge of the specifics of their reactions. This helps to further improve and streamline their entire processes, while enabling them to offer even more knowledge to their customers.

Increased productivity

Many scientists are burdened by the necessary demands of the job; the ones that can seem menial but are crucial to undertake, the protective process as an earlier example.

Lumi is helping CatSci save time, without compromising on health, safety, or quality of work.

“Lumi’s good for productivity as the chemist doesn’t always have to stay in the lab to monitor a reaction. They can go back to their desk or another lab and monitor the reaction remotely.”

Dr David Wong-Pascua, Associate Principal Scientist at CatSci explains.

Once scientists would have to stay and closely watch their experiment to avoid missing something crucial. Now, Lumi can do it for them. This is freeing their hands and minds, allowing them to further focus on solving customer project challenges even more efficiently and effectively.

Improved decision making

“AI is important in helping widen the scope of decisions we make.” says Eleanor Goodier MChem, an Associate Scientist at CatSci.

CatSci appreciate how powerful AI and computer vision tools like Lumi are. They see that the future of their decision making, especially for smarter and quicker decisions, lies in taking advantage of AI and machine learning in their data analytics.

The pandemic demonstrated that speed-to-market is crucial for good patient outcomes. With Lumi improving collaboration across the board, increasing productivity, and providing a deeper understanding of what each scientist is doing, medicines can be created much quicker. As a result, Lumi helps CatSci to expedite drug development, which means getting much-needed therapeutics into the hands of patients in need faster.

Looking ahead:

A strong partnership and a bright future

CatSci have developed a strong business relationship with Reach Industries, the team behind Lumi. Observing all the tangible benefits that Lumi has brought to their organisation and their customers, CatSci are now a collaborative and strategic partner of Lumi.

Lumi has enabled CatSci to enhance the way they disperse valuable knowledge with their customers, as well as share the power of this kind of technology.

“[Reach Industries are] helping lead us to a deeper understanding of new capabilities that this sort of technology offers, and they’ve been super responsive to all the different ideas and thoughts for collaborations we’ve had.”

says Dr Whitmarsh.

The team behind Lumi aim to keep supporting CatSci, helping them to continue to deliver innovative solutions for their customers with speed and scientific integrity.

The future of Reach Industries and CatSci’s relationship is looking bright, illuminated by Lumi.

