



Success story

Volvo Car Ghent improves supply chain efficiency with IoT

In late 2018 Volvo launched an IoT-pilot project together with Sensolus and Simac designed to quickly locate every vehicle. By using this approach, every car can be located within a few minutes, no matter where they are positioned. For Volvo, this was an important next step to optimize their supply chain process.

Volvo Car Ghent produces more than 200,000 vehicles each year, making it one of the largest production sites of the famous car brand. During the launch of a new model or model year change, cars do not always follow the normal flow, which can make it more difficult to quickly find a specific finished car. "The business asked us to look for a tool with which we can identify our cars quickly," says **Patrick Van Peteghem**, Infrastructure Site Manager at Volvo Car Ghent. "Simac and Sensolus had the ideal solution for us."

Strong partnership

For nearly 20 years, Simac has been one of the regular integration partners of Volvo Cars. Simac is involved in numerous projects and Simac's Professional Services department has staffed Volvo with a number of consultants who are involved in mission-critical projects, proving their added value on a daily basis.

For the IoT-project, Simac set up a partnership with Sensolus, a fast-growing company from Ghent. This collaboration demonstrates that long-term partnerships do not stop companies from being innovative. **Kristoff Van Rattinhe**, CEO and co-founder of Sensolus,

explains: "For five years now it has been our mission to combine assets that are not connected to the internet in a simple way so as to connect and form digital assets, the creation of 'digital twins'. At Sensolus, we specialize in optimizing business processes through these digital twins, also known as the Industrial Internet of Things (IIoT)".

For the project with Volvo, Sensolus provided sensors that used little energy and were remotely programmable. That makes it easy for changes to take effect when circumstances or processes change. Simac ICT Belgium took responsibility for the entire delivery and integration, including integration with a number of existing IT systems at Volvo Cars. The 14 years of experience Simac has with the Volvo IT systems proved its value in this respect. "The Internet of Things is one of our most important spearheads," says **Johan Diels**, Director of the Integration Business Unit at Simac. "We already had extensive experience with such projects, both at home and abroad."

Seamless integration

Volvo sees this pilot project, which was implemented in less than a month, as a major improvement. "We were looking for a quick solution, and that's what we found," says Van Peteghem. "The integration of the IoT-solution with our current quality system went smoothly. Now we know within five minutes where a vehicle is located."

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ABOUT VOLVO CAR GENT

Volvo Car Gent is one of two European production sites of Volvo Cars and a subsidiary of the Swedish Volvo Car Group, headquartered in Gothenburg. With over 6.000 employees, Volvo Car Ghent is the biggest industrial employer in Flanders. In 2018, Volvo Car Ghent produced 200,396 cars. Currently the XC40 and V60 are assembled in Ghent. From 2020 onward, the plant in Ghent will build the first fully electric Volvo, the XC40.

During the pilot project, a total of one thousand sensors were used for the tracking of the Volvo V60. Of course, other models that are also produced in Ghent, such as the V40 and XCV40, can also be easily equipped with a non-powered tracker. "One of our strengths is the scalability of our IoT-solution," confirms Van Rattینگhe. Cars are not only followed on the car parks, as the tracking system can also be used inside the production factory itself. In this way, the Sensolus sensors determine whether cars sit idle for too long in a certain region. That way the production process is checked on a constant basis. Based on these KPIs, messages are generated and sent to the managers of the production process.

"The Ghent-based pilot project is also monitored internationally for any other applications where the

supply chain can be optimized," adds **Peter Vanderlinden**, Sales and Business Development Lead in Industry 4.0, IoT, AI and Blockchain at Simac ICT Belgium.

IoT and Supply Chain

The supply chain is one of the areas where IoT can deliver major improvements. Over the last few years, the supply chain has grown more complex: because of globalization, the supply chain has become extended and a bigger number of parties are involved in producing and transporting goods on a global level. At the same time, regulations have become stricter, especially in domains such as food safety and the transportation of dangerous goods. What's more, consumers want to be better informed on the delivery status of the orders they place.

The Internet of Things delivers more transparency on the supply chain and reduces complexity. By combining IoT with Blockchain and 'Smart Contracts', the possibilities become even bigger. To visualize this, Simac built an interactive demo that demonstrates the power of IoT and Blockchain in the supply chain. More info at <https://bit.ly/37tLO9w>

ABOUT SIMAC

Simac ICT Belgium is a subsidiary of Simac Techniek, a strategic ICT integrator active throughout the Benelux. Simac ICT Belgium considers it its core mission to optimize the ICT infrastructure of organizations in order to make enterprises flourish. This goes beyond pure technical support. Simac maximizes the power of existing systems and assists in transforming companies towards new opportunities. Simac offers various services and specializes in domains such as information security, networks, cabling, monitoring of both applications and infrastructure, collaboration and communication, data storage and servers. Simac has also built up expertise in emerging technologies such as Blockchain, the Internet of Things (IoT) and other innovations.

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