Success Story

Sage X3 is buzzing with data for Ÿnsect

The global leader in cultivating and processing insects chose to collaborate with Sage.

"Sage X3 is the backbone of our entire business. The comprehensive solution manages every process across the company."

Ÿnsect's disruptive approach is impacting a wide range of sectors, including food (for people and animals) and fertilisers. This includes a focus on a circular production system and a strong commitment to digital transformation.

Vertical farms are incredibly resource-efficient ecosystems. However, they are also extremely complex systems, requiring detailed management of a wide range of production and operational data.

This is why digitalisation of the company's performance management systems is a core component of the business plan for Ÿnsect and what keeps the company one step ahead today.

Data from every stage of insect farming and processing is collected and managed through the Sage X3 ERP system.

The ERP serves as the command centre of Ÿnsect's complex operational ecosystem. In the future, Ÿnsect will also use Sage X3 to precisely track its carbon footprint.

Sage

Company
Ÿnsect

Location
Évry-Courcouronnes, France

Industry
Food & Beverage

Sage Products
Sage X3

Ynsect

About Ynsect
Ÿnsect is one of the world leaders in insect ingredient production for people, animals, and plants.

“Ÿnsect is all about innovation. We cultivate mealworms and process them into protein-rich solutions.”

Ibrahim Bouchama,
ERP Manager, Ÿnsect

Reinventing the food chain
Founded by scientists and environmental activists in 2011, Ÿnsect is pioneering a new industry, aligned with the need to reduce pressure on our planet.

The company holds more than 380 patents, over half of all patents filed in this emerging field. Ÿnsect has more than 300 employees worldwide, based in Europe and the USA.

A solution that benefits the planet
Ÿnsect introduced the world’s first line of insect-based food ingredients. These products offer innovative solutions for the agri-food industry that combine nutrition, sustainability, and enjoyment.

A second product range is specially designed for animal feed. These natural, nutritious products are packed full of high-quality proteins.

Finally, Nutrÿfrass fertiliser is produced from insect waste. It is as effective as chemical fertilisers and as environmentally friendly as their organic equivalents.

Europe's largest insect farm.
Packed with high-quality protein, vitamins, and minerals, Ÿnsect's mealworms have a positive impact on cholesterol and gut bacteria. The company applies its expertise to optimise insect growth and health, as well as the efficiency of its vertical farms.

Europe's largest production unit
"We already have a production site operating in Dôle (Jura). And we're currently building the world's largest vertical farm." Spanning over 484,000 square feet (about 45,000 square metres), Ÿnfarm is designed to produce approximately 160,000 metric tonnes of ingredients per year.

The vertical farm is where Ÿnsect cultivates and processes mealworms on a large scale. Mealworms are the larval form of the yellow mealworm beetle, Tenebrio molitor—the very heart of the business. The insects grow and reproduce in the vertical farm before being sorted, harvested, and sent to the farm's storage unit. Every production stage takes place on-site as part of an optimised short supply chain.

In total, 95% of larvae are processed as ingredients. 5% are retained for reproduction, which reduces dependence on external sources for start-up stock.

Cutting-edge farming
Everything is precisely calibrated: time, space, resources, and raw material for feeding the insects. The R&D Department's extensive research has established the ideal frequency and quantity for feeding the insects, based on their weight and phase of life.

Ÿnsect also controls temperature, airflow, humidity, and CO_2 levels in the farming zones. Juvenile mealworms are particularly sensitive to environmental conditions at the development stage.

Sensors are located throughout the facility, allowing the ambient conditions to be tailored to each group's needs. Modern technology is used to optimise the mealworms' environment for each phase of their life. Cameras installed on production lines monitor the insects to ensure they are healthy and steadily gaining weight. AI tools help to analyse the images.

Internal logistics software regulates the transfer flow of 120,000 containers, each of which is identified and tracked from hatching to final product.

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Building an IT system that measures up
Ÿnsect wanted innovation in its performance management systems as well. All company processes, starting with production, run through the Sage X3 ERP.

"We are harnessing ground-breaking innovation. Our processes, technology, and systems are raising farming to an industrial scale. We truly have digitalised farming from end to end. And Sage X3 centralises all the data and the operational management."

Fully controlled management flows with Sage X3
Sage X3 was rolled out at Ÿnsect in 2020. "It is the backbone of our entire business and manages every aspect of the company. Starting with purchasing and ending with sales. Via production management, of course."

Sage X3's agile and scalable design is a key benefit for Ÿnsect. "We've built an entire framework, a structure for managing insect farming in our ERP." The challenge of measuring carbon footprint using management data.

Reducing environmental impact
One of the company's founding goals was to reduce environmental impact. The company uses a circular model—the fertiliser produced from the insects' waste can be used in the fields where the insects' food is grown.

Per calorie produced, farming mealworms emits 40 times less CO_2 than cattle farming and requires 40 times less land, helping businesses meet the UK's ambitious sustainability targets. Each metric tonne of insect protein used in aquaculture saves 5 tonnes of fish. One kilogram of mealworm protein uses 40 times less water than one kilogram of pork.

Making food accessible to all
Ÿnsect's scalable technology means that these vertical farms can be constructed anywhere in the world. Not only does this give more control, stability, and transparency within supply chains, but also supports local upcycling of byproducts and sustainability. The farm workers who run the vertical farms enjoy positive working conditions. Cutting-edge machinery and automation technology reduce the physical burden associated with traditional farming practices.

Genuine control over the company's impact
Environmental sustainability is a key focus at Ÿnsect. The company has an Impact department, which is particularly focused on reducing its carbon footprint.

"We use Sage X3 to analyse financial flows. And we convert our management data into environmental data, including carbon footprint indicators. This initiative is being scaled across the company. Looking at production, resources. Including service operations as well"

Ÿnsect's work with Sage X3 is helping the team manage growth, improve efficiency, and support their commitment to sustainable food production.