
Can food retail help to solve the world's growing need for food? Viessmann and &ever are helping food retailers to become food farmers

- **Vertical farming is helping to grow hyper-local food in the cities, on food retailers' own premises**
- **Vertical farms in logistic centres grow salads and herbs for the local store network all year round without pesticides or the risk of a poor harvest**
- **Instore solutions keep the salads growing until they reach the shoppers' home**

Düsseldorf, 16 February 2020 – In 2050, there will be 9.8 billion people living on our planet, 6.4 billion of whom will live in cities. Already today, 7.3 billion people consume 1.6 times what the Earth's natural resources can supply. The shortage of farmland and water is challenging farmers to find new solutions to produce vegetables.

It is evident that, in the future, producing food will require new technologies and transforming cities into farms. At the same time, the demand for vegetables is growing as more and more consumers become vegetarians or vegan, or simply prefer to eat more healthily.

Viessmann Refrigeration Solutions and &ever are co-developing solutions to meet these global challenges and food retail trends. The companies have a partnership agreement to introduce new vertical farming innovations, which cover the full value chain from farm to fork. These innovations were presented at the EuroShop 2020 trade fair in February in Düsseldorf, Germany.

Growing greens is possible in logistic centres and warehouses

The &ever solutions enable the establishment of farms in city centres where space is limited, for example in food retailers' logistic centres and warehouses. At an Indoor Garden farm, lettuce and greens grow in optimal conditions in vertical layers. Unlike in a typical greenhouse, salads and herbs are not exposed to natural light at all. Instead, growing takes place in several layers under LED lighting, correct temperature and humidification.

Mark Korzilius, founder and CSO of &ever GmbH, explains: "In the climatized rooms, the greens are grown on a substrate with nutrient-enriched water. Under these ideal conditions, there are no poor harvests as the growth is not dependent on season, weather or climate conditions." Compared to traditional farming, growing fresh salads and herbs uses **90% less water without any pesticides**. "Vertical farming is also **20 times more productive** as the growing continues throughout the day and year. Harvest cycles multiply in vertical farming and there is **less waste** due to the ideal growth conditions," says Mark Korzilius.

From Indoor Garden vertical farm to the store

In the first step, cultivation from the seeds is done in a vertical farm built in a food retailer's logistic centre or warehouse. There the living salad is placed intact onto a recyclable tray and the **growing of salads continues for 19-22 days**.

From the vertical farms, the greens are transported **directly to the food retail stores**. "Growing salads and herbs near the stores **maintains their nutrients and flavour**, which are not ruined by long transportation or cold," explains Korzilius.

From the food retail store to the consumer's plate

In the retail store, the greens are displayed on their trays in **special refrigerated cabinets** from Viessmann. The cabinets continue to maintain the ideal conditions, temperature, lighting and humidity, so the **salads continue to grow** for another 3-4 days. During the whole process, the salads' roots remain intact keeping them alive and growing.

Dr. Henner Schwarz, CEO of &ever GmbH, summarizes the advantages: "**Harvesting is done at the retail store**. The shoppers pick their greens from the Viessmann cabinet, with the roots still intact, and take them home. Even at home, the salad still continues to grow before being cut for use. There is no waste or drop in nutrients. Consumers enjoy high-quality greens, rich with flavour and freshness".

Bundling the competencies of &ever and Viessmann

Cooperation between Viessmann Refrigeration Solutions and &ever GmbH started in 2018, as &ever was looking for a partner to build the climatized rooms for the vertical farms. "We are able to support each other with different expertise. In Viessmann, we have know-how in climate-controlled rooms and refrigerated cabinets while &ever team is specialised in the vertical farming process. Together we have already delivered a project to Kuwait, where Indoor Garden is in use and growing salads literally in the middle of the desert," says **Frank Winters**, CEO of Viessmann Refrigeration Solutions.

The companies presented their innovation at the EuroShop 2020 exhibition, where a Viessmann Tecto SV3 refrigerated cabinet was equipped with vertical farming technology and salads. Both companies are enthusiastic about this development as it is a clear step towards ensuring that our planet remains a place to live for generations to come.

About &ever:

&ever GmbH was founded in 2015 (under the name Farmers Cut). The company has 24 employees including Mark Korzilius as founder and CSO and Dr. Henner Schwarz as CEO. The headquarters are in Hamburg, Germany, where the company's first pilot farm was located. The first large farm is in Kuwait and additional farms at other locations are planned.

About Viessmann:

The Viessmann Group is one of the leading international manufacturers of heating, industrial, and refrigeration solutions. This family enterprise was founded in 1917, has 12,000 employees, and the group's turnover amounts to €2.5 billion.

Viessmann Refrigeration Solutions is one of the leading European manufacturers of commercial refrigeration and clean room solutions, renowned for their energy efficiency, sustainability, ease of use and maintenance. Viessmann's refrigeration product and service portfolio includes refrigerated cabinets, refrigeration systems, cold and clean room solutions, accessories and related services. Viessmann refrigeration solutions employs nearly 1,500 refrigeration professionals in Europe. The products are manufactured at Viessmann factories in Germany and Finland and are represented by local sales offices in 18 countries, backed up by an extensive network of partner companies.

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