

## ebm-papst Energy Scouts develop their own vertical farm

Mulfingen, 01/22/2023

Vertical farming is a mega trend in agriculture and is set to revolutionize it in the future. The global market for fruit and vegetables from these special little greenhouses has grown steadily in recent years and, according to forecasts, will continue to rise. This is because, on the one hand, global climate change is causing problems for agriculture and, on the other, living in cities is becoming increasingly popular.

Scientists predict that population growth alone will mean that by 2050 an additional area of land the size of Brazil will be needed to feed everyone in the world.

As part of their annual topic for 2022, the ebm-papst Energy Scouts took up this challenge and planned and built a vertical greenhouse. The Energy Scouts are five trainees who carry out sustainability and environmental protection projects at ebm-papst for a year, before handing over to their successors. They are the twelfth team of trainees to take part in the program, which was invented by the company in 2010 and has not only gained recognition beyond Germany's borders, but is now offered as a training program by nearly all chambers of industry and commerce.

"The aim of the Energy Scouts is to save energy and develop new concepts for efficient, environmentally friendly and sustainable operations," says Johanna Oberhardt, Group Manager of Technical Training at ebm-papst and the person responsible for the Energy Scouts project. "The basic idea behind vertical farming is to make the cultivation of fruit and vegetables calculable. In other words, to achieve a predictable yield and gain new cultivation areas."

The Energy Scouts began implementing their small farm by building a housing unit and then planning all the necessary components. They achieved an optimum supply of air by using the company's own axial fans and used LEDs from Würth Elektronik for the lighting. The plants' feed was regulated via a nutrient substrate. For this purpose, a pump valve ensured that liquid fertilizer from a water tank reached the individual plants in perfectly dosed quantities via a distribution block.

The coordinated components of the small farm provide an optimal climate and are precisely matched to the needs of the individual plants.

To enable processes to be automated in future, the Energy Scouts have installed an energy meter to monitor and analyze the crop cycle. This transmits data that the trainees can use to program optimum processes in order to achieve the best harvest results.

"Besides being easy to use and regulating the climate, our small vertical farm takes up very little space," says Alexandru Dragusin, an Energy Scout in his 3rd year of training. "By using food-safe materials, it meets all the

Hauke Hannig  
Press spokesperson  
ebm-papst Group

Phone: +49 7938 81-7105  
Mobile: +49 171 36 24 067

[Hauke.Hannig@de.ebmpapst.com](mailto:Hauke.Hannig@de.ebmpapst.com)  
[www.ebmpapst.com](http://www.ebmpapst.com)

[Twitter](#) / [Facebook](#) / [YouTube](#) /  
[Instagram](#) / [LinkedIn](#)

# PRESS RELEASE

**ebmpapst**

engineering a better life

necessary conditions so that it can soon be used in the Mulfingen canteen for growing herbs, for example".

The trainees have already successfully put their vertical farm into operation in the ebm-papst canteen in St. Georgen.

## **Captions (Photo: ebm-papst)**

Fig. 1: Food-safe materials were used in the vertical farm.

Fig. 2: The Energy Scouts use the vertical farm to analyze an entire crop cycle.

Hauke Hannig  
Press spokesperson  
ebm-papst Group

Phone: +49 7938 81-7105  
Mobile: +49 171 36 24 067

[Hauke.Hannig@de.ebmpapst.com](mailto:Hauke.Hannig@de.ebmpapst.com)  
[www.ebmpapst.com](http://www.ebmpapst.com)

[Twitter](#) / [Facebook](#) / [YouTube](#) /  
[Instagram](#) / [LinkedIn](#)

## **About the Energy Scouts**

The trainee project, which is now known throughout Germany, was founded by ebm-papst in 2010 and has since represented the company's efforts to raise awareness of sustainability and environmental protection among young people and young adults. In 2014, the German Chamber of Commerce and Industry (DIHK) became aware of the project and adopted it as a training program for its chambers of industry and commerce. As a result, more than 10,000 young people in well over 1,000 companies in Germany alone have since been trained as Energy Scouts, taking care of climate protection and energy efficiency in the workplace. The project has also been successfully rolled out in parts of Europe.

## **About ebm-papst**

The ebm-papst Group, a family-owned company headquartered in Mulfingen, Baden-Württemberg, Germany, is a globally leading manufacturer of fans and drives. Since it was founded in 1963, the technology leader has set international industry standards with its core expertise in motor technology, electronics, digitalization, and aerodynamics. With over 20,000 products, ebm-papst offers customized, energy-efficient and intelligent solutions for virtually any ventilation and drive technology requirement.

In the 2021/22 financial year, this hidden champion generated turnover of EUR 2.288 billion. It employs just under 15,000 people at 29 production sites (including in Germany, China and the U.S.) and in 51 sales offices worldwide. ebm-papst sets the benchmark for fan and drive solutions in virtually all sectors, including ventilation, air conditioning, refrigeration, heating, automotive, information technology, machine building and household appliances, intralogistics, and medical technology.