

*M&A Worldwide, Food and Beverage Industry Group
by Nicolas Bonnel, France, March 2021*

The vertical farming knows a vertical growth

Indeed, the global vertical farming market has been steadily growing over the last years as population sizes increase and living in urban cities become more popular. In 2019, the vertical farming market reached some 4.4 billion U.S. dollars, but the market value is expected to increase to 15.7 billion U.S. dollars by 2025. Being able to use vertical space and reducing the need for additional land and construction activity contributes to the appeal of vertical farming in large cities. Demand for vertical farming is expected to increase largely due to the popularity of organic food.

Indoor vertical farming

To grow a plant needs water, nutriments, and sun. For this new kind of agriculture, the use of data is the main X factor, each plant has its needs fulfilled with great precision. **Futura Gaia** has even developed its own hardware and software with a € 2.5 M fundraising. Indeed, they took their independence from the Israeli global operator **Haifa** which has cornered the market with its solution **Haifast**, and they will invest US\$ 350 M in the next two years.



Thanks to cloud-based farming platform the yield of the crops always increases. It allows to use less water than the traditional culture.

The light's power of the LED is managed as well as the dose of nutriments. Each parameter is under control to maximize not only the production's quantity but also its quality.



This agriculture allows to produce all kind of plants all along the year, because there is no impact of climate especially freeze.

The farms can be warehouse, containers, or abandoned urban spaces. Thus, the hydroponic farming can be deployed everywhere using as little floor space as possible. Indeed, the productivity of these farms is way better than traditional culture. This efficiency reduces the impact on the environment, and therefore the farms are localized near the sites of consumption.

Hence, the farm takes place now directly in the supermarkets to avoid the transportation and the issue to store fresh food. The expansion of this solution is allowed by the multiple fundraising of **Infarm**. Indeed, **Infarm** is one of the leaders of the market which has already many partnerships with the leader of French retail at a national scale (Intermarché, Metro, Casino, Auchan...).

Whereas **Agricool** works with Monoprix to target the area in and near Paris. But, the indoor farm of **Agricool** are in Paris' area and not directly in the supermarkets. But its expansion is coming with a recent fundraising of € 25 M. Furthermore, gastronomic restaurants endeavour to democratize this solution to enjoy every day the freshest vegetables, fruits, and aromatics. **Towerfarm** is trying to corner this unique market, thanks to the financial support of many institutions (Bpifrance, INRA, ...)

Outdoor vertical farming

The outdoor vertical farming is one of the ways to accomplish a part of the goals to “Transform Our World”, especially the 11, 12 and 13 goals.

Our cities are on their way to become more sustainable thanks to the development of vertical farms especially on the roofs to make the most of the floor space already used. This agriculture makes the most of permaculture and aeroponic systems. This combination blows the productivity up as fast as the roofs become greener.



Agripolis has created the largest urban in Europe on the roof of the “Parc des expositions” with 14000 meters square of aeroponic farming thanks to their vertical structures. This farm only produces organic food for restaurants, retail and directly to consumer, but the citizens can also rent a space to have their own garden for 320€ each year. **Sodexo** has decided to develop the **Agripolis** solution on the roof of its headquarter. The production will provide vegetables for the restaurant of the company.

There is a real trend to reconnect with the nature for the inhabitants of the cities. They also want to have a positive impact on the environment through their consumption and the coronavirus acts like an accelerator of this trend which becomes a real need for more and more people. Then, a firm like **Peas & Love** lends a space to people who wants to have their own garden in an outdoor vertical farm. This model is successful, and they easily raised € 1 M with the support of Eutopia in December 2020.

To conclude, urban agriculture is not only vertical, the use of hydroponics in a horizontal structure as **Gotham Greens** does is efficient too. So efficient that the US firm has raised € 25,4 M with the support of the Mulliez family office dedicated to the food sector **Creadev**.

DEALBOOK Vertical farming – France

BUYER	ACTIVITY	TARGET	ACTIVITY	DEAL / VALUE	DATE	PRODUCT
CREADEV 	Venture Capital	GOTHAM GREENS 	Urban farms	Fundraising € 25,4 M	June 2018	Urban outdoor vertical farming
DANONE Ventures 	Venture Capital	AGRICOOOL 	Indoor farms in containers for retail in cities	Fundraising € 25 M	December 2018	Indoor vertical farming
Sofimac Innovation 	Venture Capital	FUTURA GAIA 	Indoor farms	Fundraising € 2,5 M	March 2020	Indoor vertical farming
EUTOPIA 	Venture Capital	Peas and Love 	Rental of plots in urban vertical farms	Fundraising € 1M	December 2020	Urban outdoor vertical farming
ASTANOR 	Venture Capital	INFARM 	Urban indoor vertical farms in retail sites	Fundraising Equity raise € 170 M	November 2020	Indoor vertical farming