

CASE STUDY



CUSTOMER: PLNT.be
LOCATION: Antwerp (Belgium)
PROJECT: Leaf Carrier for germination phase

PLNT
beyond bio

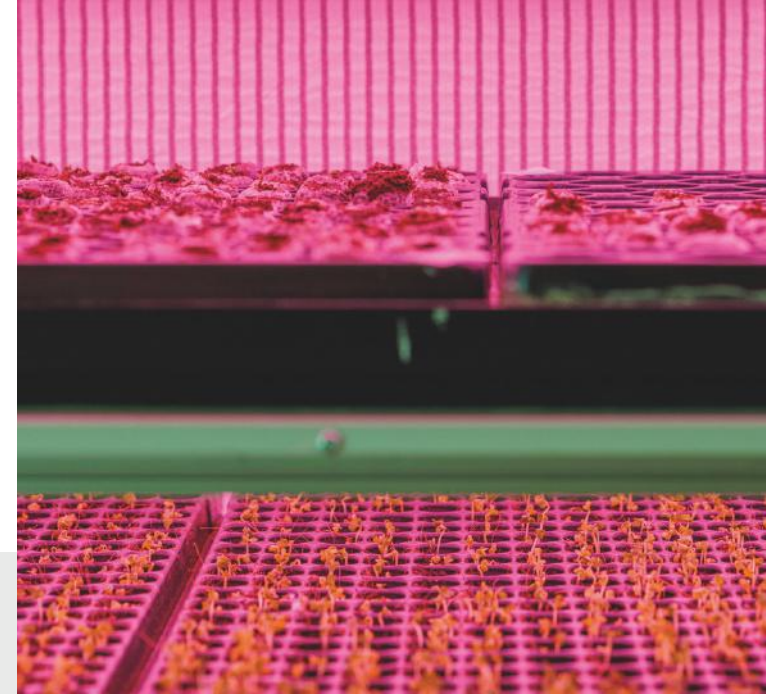
PLNT: *Exceptional quality, and 'beyond bio'*

“PLNT’s business model is based on two pillars: radical sustainability and exceptional quality,” says Hans Snijder, CEO and co-founder of urban vertical farm PLNT. In the port area in Antwerp North, they grow 45 varieties of leafy greens - salads and herbs - in a fully controlled environment. Their motto: Beyond bio. For the germination phase, PLNT uses Leaf Carriers from Bever Innovations. This way, the company expands their cultivation capacity by over 30%.

PLNT offers a wide range of flavours, shapes and colours, with its selection including Korean Shiso, mizuna, sorrel, red sorrel, baby kale, various types of basil and other herbs. With this, PLNT primarily targets chefs who like to work with high-quality sustainable products in their kitchens. In response to the COVID pandemic, PLNT swiftly adapted its business model by introducing a subscription-based service that offers convenient salad box deliveries directly to consumers. This strategic expansion allowed PLNT to overcome the sudden decline in restaurant deliveries, which occurred shortly after its initial launch.

Year-round consistently superior quality

“We want to bring agriculture back to the city,” says Hans Snijder. “I consider myself a techno-optimist and with this concept I want to make my contribution to the climate challenges we face. How it started? The journey began when I became a parent and desired to provide my children with the highest quality food. As I delved deeper into the subject, I discovered certain deficiencies within our existing food system, motivating me to take action. For me, as a technologist, vertical farming is then the only farming solution that allows you to provide customers in the city with consistently superior quality year-round - and for the hospitality industry, that is a must.”



Deliberate choice for niche market

The vertical farming sector is developing rapidly and large-scale adoption is not yet a reality. “It is still being pioneered,” says Snijder. “In this respect, I see two directions: you can focus entirely on the technical solutions and optimise them as much as possible so that you can ultimately produce cost-efficiently. Or you can develop a business model with technology as the basis, in which you focus purely on cultivation and in which you can operate commercially and operationally soundly. We opt for the latter and therefore explicitly choose a niche market, with a distinctive and consistent story. We deliver another product, with year-round consistent superior quality, combined with radical sustainability.”

The assortment is efficiently grown in two reused 40 ft sea containers, which house a high-tech growing environment. With an automated carousel system from an external party, PLNT has 86 m² of cultivation area. “What we produce in our containers is equivalent to the yield of four hundred square metres of full ground,” he says.

“Pure as can be and you can taste that”

“We are not affected by weather conditions, air quality or PFAS. We can emulate any climate. Number of hours of light, temperature, amount of water, wind speed, everything is optimised to obtain the best flavour and taste. Because we produce under fully controlled conditions, we can also minimise water consumption.

The plants grow in sterile coconut substrate with added nutrients, without contact with the outside world. This ensures that there is nothing to combat - no bugs and no diseases. So not a drop of pesticide is used either; neither chemical nor organic. You can pick everything and just eat it. Pure as can be and you can taste that!”

Radical sustainability as a core value

Radical sustainability is a core value in every facet of operations. Reuse and zero-waste are key, including in cultivation. “We recover 95 percent of our water and we only work with green electricity, insofar as we do not generate it ourselves through our own solar panels. The coconut substrate we sow in is a waste product of a waste product. The derivative of coconut husks and coconut milk is made into textiles, and what remains is the raw material for substrate. After cultivation, it is composted and reused as soil conditioner.”

Ultra-short supply chain by cargo bike

PLNT keeps the supply chain ultra-short and also organises logistics entirely in-house. “We harvest twice a week. Ordered today, cut tomorrow and delivered to your home the same day by cargo bike - in deposit containers to minimise waste. The quick delivery also increases shelf life: the cut produce stays fresh for at least a week and a half. We work with ‘order to grow’ to avoid waste. Should there be any leftovers, we offer them via the Too good to go app. Surplus cannot be completely avoided, because purchasing from the hospitality industry is variable. When the sun shines, they handle more than when it rains.”

Hospitality industry opts for superior taste and sustainability

Chefs and consumers both fall for the superior flavour. “We supply a wide range of restaurants. Top restaurants with starred restaurants like Le Pristine and The Jane, who choose top quality. Also restaurants for whom our focus on sustainability is very important, think vegetarian and vegan restaurants like Camion and Camionette. And finally, several chefs are also simply won over by the taste of our



products - for example, we also supply Rush Rush and Nordica31. But also to a pizzeria that is a big fan of our basil and arugula. Nobody offers this quality, we hear often.”

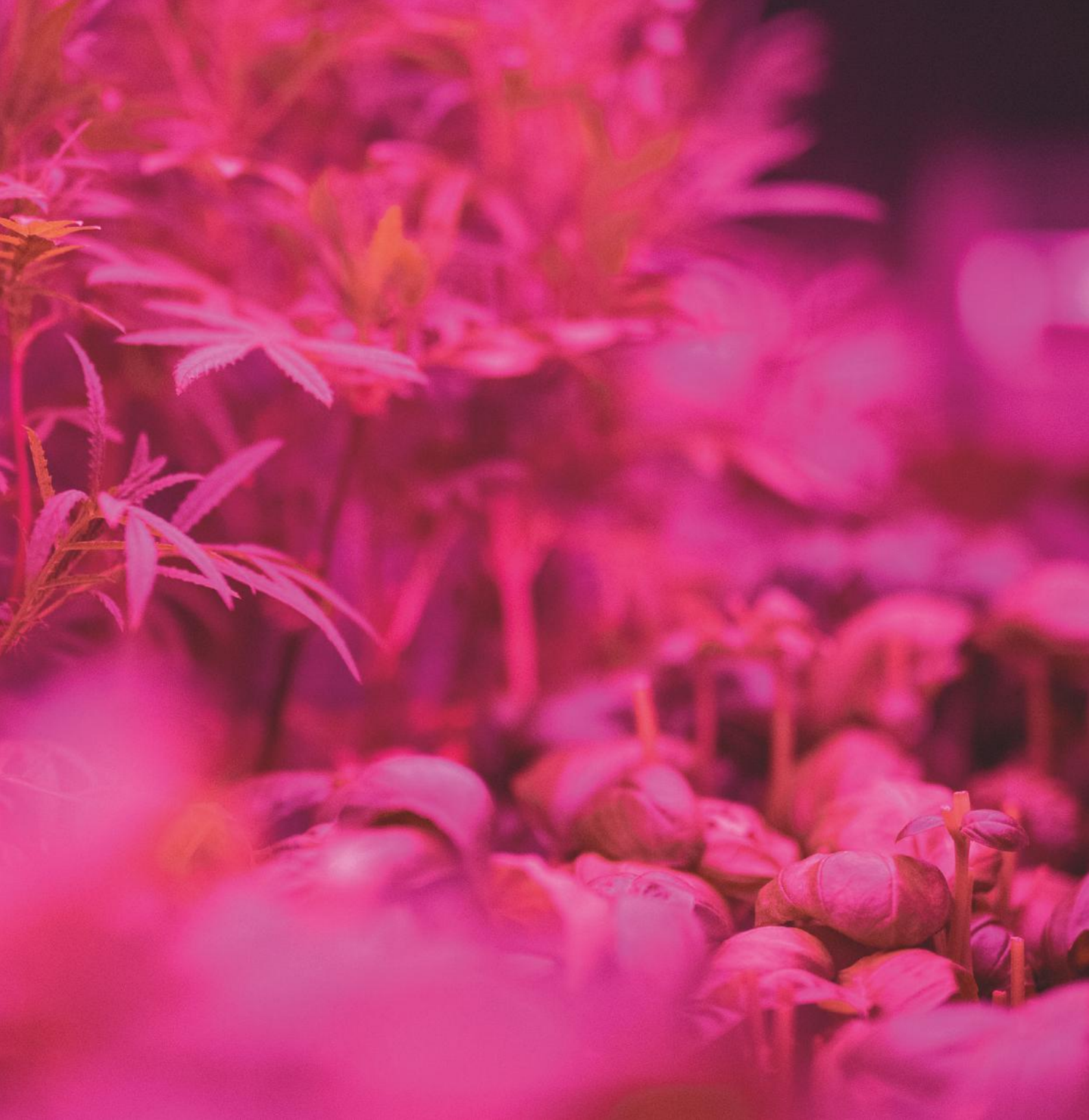
Leaf Carrier: expanding cultivation capacity

PLNT’s concept is catching on. As a first step towards expanding its cultivation capacity, the company chose to purchase several Leaf Carriers from Bever Innovations. The cultivation trolleys are used at the germination stage: the plants germinate in trays and then move to the cultivation environment.

“The multilayer cultivation trolleys greatly expand our cultivation area per square metre, at a considerably lower cost than in the cultivation carousel. We are still developing and this fits well with Bever’s philosophy. Their engineers work with us to see how we can make optimal use of the trolleys, for instance in terms of watering. They look into our specific situation and respond quickly and adequately. That makes the cooperation very pleasant.”

Controlled expansion

Slowly but steadily, PLNT continues to expand. This controlled expansion is a conscious choice: “Growing too fast is vulnerable, there are too many uncertain factors. With vertical farming you are dealing with a significant capex that you have to earn back through very small plants. It is clear that you have to make initial investments, but as a start-up I don’t want to burn operational money for years on personnel, energy or seed costs. Because technically, vertical farming is not yet ready to compete with regular greenhouses. It is when it comes to offering an alternative to fresh lettuce flown in from Israel.”



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