White Paper #1



THE BIG GREEN **DISCONNECT**



Reconnect employees with office agriculture

By the year 2050, the percentage of citizens living in urban areas is expected to increase to 70%.¹ Meanwhile, urban infrastructure development, nutrient load, salinization and contamination continue to degrade arable land.² According to Dr. Dickson Despommier, an estimated 10 million square kilometers (3.9 million acres) of new land (about 20% more land than is represented by the country of Brazil) will be needed to grow enough food to feed the rising population if traditional farming practices continue.³ Many believe that we need to find new methods to keep production closer to home, therefore permaculture and soilless farming have emerged as possible solutions. In 2013, a UN Report declared small-scale organic farming as the only way to feed the world.⁴



1% of people feeding the other 99% This is an unsustainable balance

In Asian countries like India, the majority of the population is still involved in growing their own food while they may also be working as a merchant or shopkeeper. In Europe, most sources cite that only around 10 million people are employed in agriculture, which represents 5% of total employment.⁵ While in the US around 1% of the population work in agriculture.⁶ A dramatic cultural and spatial gap thus exists between the "growers" and the "eaters". As part of this phenomenon, food may travel between 2400 to 4000 km (1500 - 2500 miles) before reaching your plate.⁷ We must ask, how long can a society survive with such a large disconnect?

What if urban agriculture and food relocalisation happened directly in the office?

Unoccupied urban zones or buildings, rooftops, offices, etc. are now turning into growing spaces thanks to new urban agricultural growing techniques.⁸ We may never meet the demand capacity, but the gap is beeing reduced and we are bringing citizens closer to nature.

What if urban agriculture and food relocalisation occurred directly in the office?9

Social benefits with increased emotional well-being

Researchers have observed many benefits of Urban Agriculture, such as improved overall social and emotional well-being, health, nutrition, income, employment, food security within the household, and social life within a community. Urban agriculture can have a large impact on the social and emotional well-being of individuals." ¹⁰ Other literature notes that, "individuals report to have decreased levels of stress and better overall mental health when they have opportunities to interact with nature through a garden." ¹¹ Additionally, "urban gardens are thought to be relaxing and calming, and offer a space of retreat in densely populated urban areas." ¹² ¹³



"10% of absenteeism can be attributed to the fact that employees are not at all connected to nature..."

THERRAPIN BRIGHT GREEN STUDY

Both ecological and social, the inauguration of a green space in an office can greatly uplift a company. According to a study conducted by Therrapin Bright Green ¹⁴, 10% of absenteeism can be attributed to the fact that employees are disconnected from nature. With an urban garden in the workplace, less stressed and more joyful employees come to work, possibly resulting in improved productivity in the workplace.

Depression and burnout, far from green

Based on hundreds of calls and physical interviews, an hypothesis from recent investigation of myfood, an independent startup in urban agriculture, has emerged: this "big green disconnect" could partly explain depression and burnout in offices. myfood has met and discussed with employees who have experienced severe stress at work. They were all in the process of quitting their jobs. Guess what their next destination was? Back to farming.

"I have been working at a big IT company in London for more than 10 years. I have been through very stressful times in the office, working with colleagues that were not happy to do their jobs and upper management that had absolutely no interest in our activities, apart from looking at the figures. I grew up on French vineyards, and I think this is what saved me." Marc L., Sales Director in a major IT firm.

"I grew up on French vineyards, and I think this is what saved me"

MARC L., SALES DIRECTOR IN A MAJOR IT FIRM.

There is evidence that working in an office farm or garden while interacting with nature relieves stress and increases skill building and coping mechanisms. ¹⁵



HORTICULTURAL THERAPY

Horticultural therapy is a process in which plants and gardening activities are used to improve the body, mind and spirit of those people of all ages, backgrounds and abilities. Horticultural therapy is currently being used in hospital, rehabilitation centers, disability services, skilled nursing facilities and a range of community settings, including people's homes and community gardens. Horticulture therapy dates back to Socrates, but it didn't become a scientific pursuit until the 18th century. The first modern documentation of horticulture being used as a treatment for mental health purposes was in the 1800s. Dr. Benjamin Rush discovered that field labor in a farm setting helped attain positive outcomes for clients with mental illness.¹⁶ Rush's discovery led many hospitals in the Western world to implement horticulture therapy programs as a treatment for mental health and developmental disabilities.¹⁷ "Much of the science behind just how gardening affects the mind and brain still remains a mystery."

KRISTOFOR HUSTED, NPR NEWS



Toronto Botanical Garden, Certificated in Horticultural Therapy

CSR: companies can educate and grow their own food for their employees

Disruptive initiatives toward urban agriculture in the office are surprisingly not emerging from small green startups, but actually from big giant firms like Google, Microsoft, and Ebay/Paypal.



Such big IT firms are illuminating the path as to the best methods to bridge urban agriculture with Corporate Social Responsibility.

MICROSOFT

During the annual Association for the Vertical Farming (AVF) summit in Amsterdam, myfood researchers recently met with Jessica Schilke, the Director of Urban Farming at the Compass Group, a firm, which Microsoft contracts out to manage it's farming projects. There's a quiet, green revolution growing in the middle of Microsoft's Café 34. Under plasma lights, lettuce thrives in hydroponic towers. Meanwhile, microgreens are cultivated in a cooler behind the "Forage" organic salad bar. In Microsoft's urban farming experiment, microgreens are used as a topping on pizzas and other dishes served at the café. They're also often the finishing touch on entrees served in the adjacent restaurant called "Ingredients". The greens, available in the café's "Gather" salad bar, are often the first to go, says Jessica Schilke, "We get lots of great feedback about how they taste," she adds. In fact, the plants are quickly approaching celebrity status in the remodeled café, which reopened six months ago. ¹⁸

Microsoft's Café 34 Redmond, WA, USA





GOOGLE

At Google, they noticed that the majority of citizens are completely disconnected from agriculture and have sometimes little knowledge about how to grow food. Their campus has many gardens, and their Farm to Table program looks for ways to educate people about the food industry. One highlight of this program is a shipping container at the Googleplex called the Leafy Green Machine. Feeding a small city of employees is a huge undertaking. Thus, there is an entire "Google Food" team that staffs more than 185 cafes globally and serves over 108,000 meals each day, with about 30 cafes at the Mountain View Googleplex headquarters alone.^{19 20}

EBAY/PAYPAL

At eBay's corporate headquarters in San Jose, CA, Silicon Valley employees can take a break from their computer screens and get their hands dirty by working at the campus vegetable garden. The program started in 2013 as an initiative of the local eBay Green Team, a group of eBay employees committed to making their worldwide operations, campuses, and communities more sustainable. The Green Team partnered with StartOrganic, a Bayarea vegetable garden services company, to install the garden's raised beds and organize educational programming for employees. According to StartOrganic co-founder Troy Smothermon, the program's mission is to make "garden education possible for people with 9-5 jobs." ²¹²²

Retain, Ignore or Recycle

A former HR Manager at a large corporation summarized succinctly the relationship that employers can have with employees: "What I am going to admit is terrible, but there are three states of mind in a company relationship with an employee: Retain, Ignore or Recycle. Basically, as an employee, you spend time, energy and resources trying to retain, motivate and incentivize high performers; or trying



to recycle low performers, in or out of the company. For the rest, well, we basically ignore the good working bees or the puzzling problems."²³

Let's approach the first category; in the course of trying to incentivize with something else than money, stock options or promotion, wouldn't it be great for a company to leverage urban agriculture to offer something more sustainable, more useful, and more responsible than just dollars? Imagine offering our high performers a first class permaculturetraining course so that they could reconnect with food production, learn to grow, and then educate their family members at home as well as their relatives. Even better, if this employee has a garden or a porch, finance an aquaponic greenhouse to turn your golden worker into a motivated social example. Picture the pitch: "At Brother&Brother, we go beyond just paying bonuses, we provide food autonomy to our collaborators".

Now, what about the "recycle" category? Well, chances are high that your demotivated low performers are considering pursuing another career path and perhaps seeking to reconnect with their green thumb. Again, providing the opportunity to exit your company and start a new life in the urban agriculture field could be achieved by providing training courses or even better: business plans. "At Brother & Brother, we go beyond just paying bonuses, we provide food autonomy to our collaborators"

FAKE QUOTE FROM B&B VP GLOBALHR

A connected greenhouse to reconnect employees

We all have read the paper about the phenomenon of bullshit jobs. ²⁴ It is hard to read about this concept without ending up with the same taste in our mouths as when we watched "Matrix" the first time. For sure, this is not a Greek tragedy, there must be a way out of this. If companies with good faith are not producing bullshit workers, they still have to manage full time and part time workers, consultants on reserve, sales seasonality or simply employees with no work to do.



Julian D., consultant at PWC: "I have been waiting for my next mission for 3 months now. I definitely feel I could be more useful to my company than checking my emails thousands of times a day". Maybe Julien could explore a new taste of life by bringing agriculture in the office.

Beginning in 2016, the City of Paris kicked off a major initiative called "ParisCulteurs", with the objective to connect urban agriculture projects with available rooftops.²⁵ Companies and agencies such as RIVP, the public housing agency of the Paris region, soon volunteered to participate in the project. They offered their unused rooftop space to welcome sustainable initiatives, biodiversity and involve their employees in gardening. We should soon see productive greenhouses topping the architecture of the French capital.



myfood© family 22 A 22m² smart aquaponic greenhouse that can produce up to half a ton of veggies and fresh fish with 15mn of daily work.

Amongst all the projects, one product solution has been proposed: an aquaponic Smart greenhouse. This production unit has been developed by myfood and can produce up to half a ton of food nearly all year-round on a surface of only 22m² (237 sq ft).



"We believe that sustainable food production and security can be achieved in every backyard or rooftop," says Mickaël Gandecki, cofounder of the startup. "Imagine how many unused square meters of corporate terraces, rooftops, gardens, and parking spaces exist. By turning these spaces into productive units, you could reconnect with your employees, educate, feed, improve your brand image, all of that for a minimalist investment. An aquaponic greenhouse can be installed in one day for less than 8k€. We are starting this year at a major shopping mall in Luxembourg (Pall Center)²⁶ and we are ready to take more corporate clients on this great adventure".

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