At the Business of Design Week 2016, CITYGREEN met with Patrick Blanc, a French botanist who modernises and popularises the vertical garden, and discussed his ever evolving creative approach. "At first it was mostly a way to have several plant species growing in a limited space - my bedroom in my parents' home," he said of his original foray when he was at the age of 18. Now his projects are on a vastly different scale, and he is far more conscious of the artistic dimension of his craft. His favourite of all his works, however, remains close to home, in his present abode in Ivry-sur-Seine, just outside Paris. Adorned with both indoor and outdoor iterations of the vertical garden, Blanc’s home features a wide range of different plant species as reminders of his travels around the world.

When asked about whether he feels the need to keep developing green technology in his vertical gardens, Blanc opined, “My vertical garden system has been working well so far and there is not much I would like to improve on technically. I do, however, feel that the range of plant species that are used could be made wider, which would mean having many more species available in the nurseries.” Blanc cited a recent observation, “I was in Bogota last year and I saw a number of locally made green walls with a very limited range of plant species. I was both surprised and disappointed to see this because the plant biodiversity in Colombia is one of the highest in the world.”

Though Blanc is well-recognised for façade greening, he has continued to scale new heights in recent years. In 2015, he constructed the highest vine biodiversity on a high-rise building with Kuala Lumpur’s Le Nouvel Towers project, and the longest free hanging structure with Bangkok’s Rainforest Chandelier. For the Rainforest Chandelier, his priority was designing the structure for ease of maintenance while for the Le Nouvel Towers completed in collaboration with architect Jean Nouvel, Blanc focused on plant diversity and selected 243 different species of lianas in order to cover the 200-metre tall towers in Kuala Lumpur. The rich diversity of plant species selected for this project was a departure from others in which usually less than ten species are installed. Blanc considers this a new kind of botanical garden in itself - the first one in the world to be completely dedicated to climbing plants.

Patrick Blanc’s work is closely connected to the setting it is in. “The project location is what makes
all my outdoor projects different from one another. Climate, wind exposure, sun exposure and all other environmental specificities guide my plant species selection,” he said. For instance, for a project in Dubai about five metres away from the creek, Blanc plans to incorporate Ipomea pes-caprae, a common species that grows on tropical beaches.

An apparent continuity of projects has also emerged in countries where Blanc has worked on multiple occasions, as well as in countries located in similar geographical regions. Blanc attributes this to the fact that “the locally available plant species list in a region is similar and not country specific. In the case of Singapore and Thailand, even though there are some differences in the plant species production, it is possible to ship the plants from one country to the other,” he says, talking about his Rainforest Rhapsody project in Singapore and Rainforest Chandelier in Bangkok.

When asked if there is any way to democratise the development of vertical gardens for non-scientists and non-botanists, Blanc suggested that those interested in building their own vertical garden should arm themselves with sound botanical knowledge in order to select the right plant species for easy maintenance.

In response to climate change, Blanc has shifted towards using locally grown plants in his gardens and consciously manages the water consumption of each project. The base of his vertical gardens is a synthetic felt made from polyamides, which takes hundreds of years to break down. The lightweight felt can hold at higher altitudes and cover a greater surface area than conventional materials. In addition to those desirable qualities, the material also only requires a tenth of the amount of nutrients necessary to sustain the soil in traditional horticulture. The material structure of the felt allows water - collected from the rooftop and recycled - to pass through efficiently, allowing plant roots to penetrate it as well as microorganisms to inhabit it.

1. Le Nouvel, Kuala Lampur features the highest vine biodiversity on a high-rise building, with about 200 different climbing plant species installed on the eight façades.
2-4. The Rainforest Rhapsody, a 2000-square-foot vertical green wall at Six Battery Road uses 120 species of plants native to Singapore and the surrounding region.
My vertical gardens go well with modern digital features. This contemporary mingling can subconsciously remind human beings of their lost connection with nature.