

W

When we were asked, along with architectural firms Boeri and MVSA, to design the Vertical Forest Wonderwoods, we were naturally honoured and proud. At the same time, it led to discussion. Was this something for the happy few? Was this really where we needed to go: building everything over topped with a green sauce? Was this really sustainable? In other words: does the Future Green City consist of roof and facade greenery? Our answer was a resounding 'yes'. With a subtle distinction: the Future Green City also consists of roof and facade greenery.

That short word, also, gets to the heart of the matter. Roof and facade greenery should never replace greenery in the 'open ground'; it is a welcome addition to it. In cities, sufficient space should be maintained and created for (avenue) trees, parks, and other public greenery. Densification should go hand in hand with making cities greener.

Applying roof and facade greenery has all kinds of advantages. Not only does it bring more people into direct contact with greenery, but it also helps make our cities more nature-inclusive, for example. Wonderwoods, for instance, is conceived as an offshoot of the Utrechtse Heuvelrug. Of course, species like the wolf will not be quick to add the green tower to their habitat; insects and birds certainly will.

# Roof and facade greenery? Yes, do it!

That roof and facade greenery is a thing reserved for rich people only is certainly not true. Facade greenery is in fact visible and to be experienced by everyone. And in the specific case of Wonderwoods, there will be a roof park on the sixth floor that will be open to everyone during the day.

In terms of sustainability, the discussion is more complicated. A structure that can support roof and facade greenery requires more CO<sub>2</sub> than a conventional building. More, in fact, than the roof and facade greenery on these buildings will ever be able to convert through photosynthesis. At the same time, with a green building, the structure lasts longer, the greenery helps keep the building cool, water is retained and there are demonstrable health benefits. So, it is really a matter of how you define sustainability.

What is important is that projects involving the greening of roofs and facades are carried out with great care. This starts as early as the design phase. There must literally be enough space for the greenery to grow, sufficient water and food must be available and good coordination between architect and landscape architect is essen-

tial. Management is also important; this must be done properly and safely. At Wonderwoods, we built one 'digital twin' (a computer simulation of the building) in which the architects and landscape architects worked together. The contractor was involved from the start to contribute his knowledge and, after construction, remains involved for years during the management phase.

Roof and facade greenery will not happen by itself. It requires leadership from administrators, investors, clients as well as designers. Leadership that is worth the effort; it leads to great Future Green Cities!

*This was the seventh contribution in our series 'On the Road to Future Green City' in which we explore the ingredients we need for a green city with a future, in the run-up to the Future Green City World Congress, Utrecht 23-26 September 2024.*



## It is really a matter of how you define sustainability