

the greenest, most eyecatching in the city The Trudo Vertical Forest - a superbly designed building, with affordable housing and trees and

Trudo Vertical Forest:

shrubs reaching up to a height of 70 metres. Inspiration for innovation In the Italian city of Lucca (Tuscany) there is a tower with seven

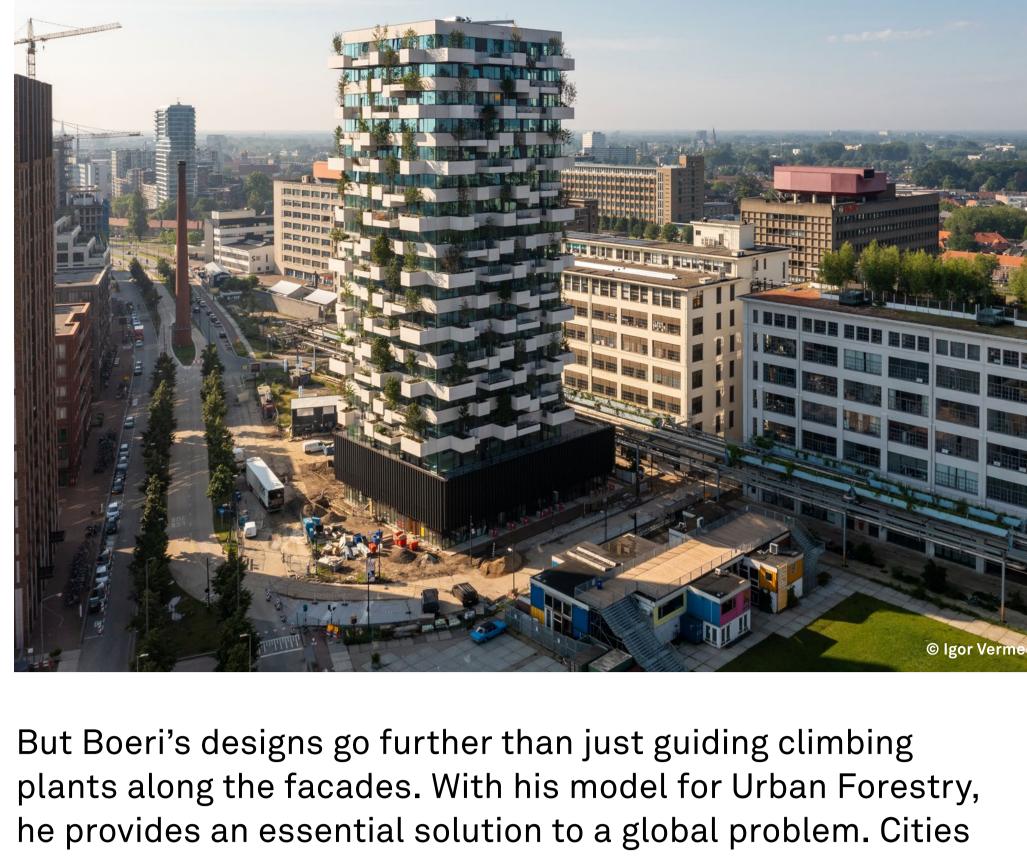
evergreen oaks as a symbol of renewal or rebirth. The 14th

century building, named after the prominent Guinigi family, was the inspiration for architect Stefano Boeri's innovation in urban greening: the Vertical Forest. After Boeri first applied his idea to two towers in Milan in 2014, orders Vertical Forests and buildings based on the same green

concept followed from all over the world. Towering green ambitions Boeri's idea is as simple as it is ingenious. He grows perennials, shrubs and trees on the facades of his high-rise buildings. In

this way he creates imposing, eye-catching buildings that also contribute to urban greening, with all the necessary biodiversity

that entails.



To inspire and motivate more people, Boeri has set out his ambitions in his manifesto: Urban Forestry. A world first Among other things, the Trudo housing corporation faces a

are bursting at the seams and nature is becoming increasingly

oppressed - with adverse consequences for air quality and

the climate. By increasing the height of the urban area with

greenery, cities can grow and densify in a healthier, more

similar challenge with the development of Strijp-S. How can the positive development that started in 2006 continue with a

focus on more affordable housing and greening? Here Boeri's

ideas offer a solution for more biodiversity and a healthier

living environment. But can they also contribute to more affordable housing for ordinary people? In that case, such

sustainable way.

a green tower would not be out of place at Strijp-S. Trudo decided to investigate this concept and so visited Milan in 2014, immediately after the delivery of his Bosco Verticale. Master plan At the beginning of this century, Trudo, together with architect and urban planner Jo Coenen, drew up a master plan for the Strijp-S triangle. In it, together with supervisor Adriaan Geuze,

they formulated a clear vision of the (re) development of 'The

Forbidden City' into a new and diverse living and working area.

The foundation was laid with the preservation and approach

of iconic industrial heritage such as the Klokgebouw (Clock

Building), De Hoge Rug (Anton and Gerard Philip's equipment

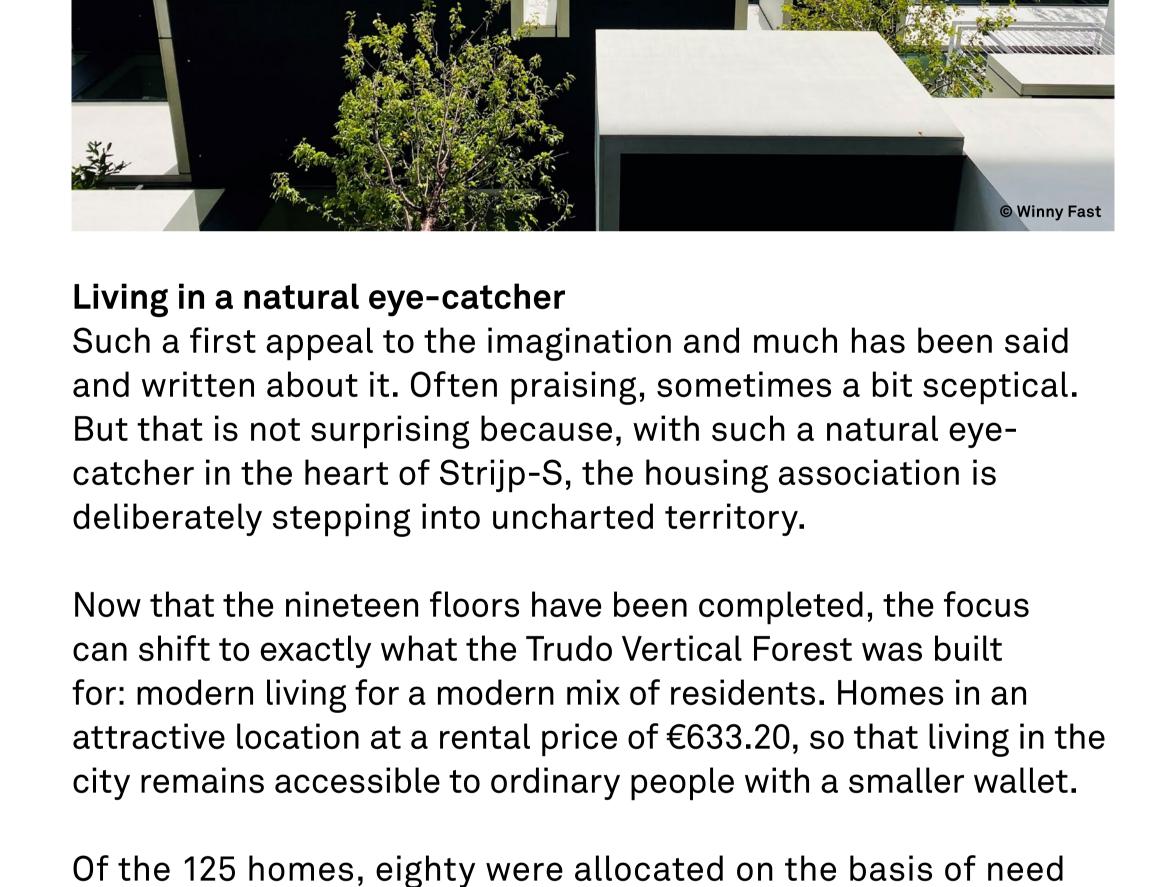
factory) and the Leidingstraat. Subsequently, there was plenty of space for new construction, with special attention being given to nature and urban greening. Based on Milan The challenge of reinterpreting his concept to deliver one that was affordable for its purpose in Eindhoven was formidable for Boeri.

recent years: as anti-architecture, as a new symbol of Milan, as a

manifesto for Urban Forestry. In reality, it was first and foremost an experiment, a prototype of a house for trees, also inhabited by humans (as well as by many species of birds) created to test new

"Milan's Vertical Forest has been described in various ways in

ways of relating to each other and other forms of life to promote coexistence. It is an experiment with a new type of architecture that is able to adapt through time and to social needs, that continues to amaze us, that changes its appearance and finds space in different forms, around the world today". Realizing that Trudo Vertical Forest was destined to be a success, Boeri worked on a new version of the tower together with project leader Jack Hock and Trudo. The lessons learned in Milan were deployed to avoid unforeseen costs. This gave Eindhoven a world premier: the very first Vertical Forest designed especially for social housing.



and fifteen after drawing lots. Thirty homes are reserved for

those needing housing in an emergency, special customers and

tal homes for one or two-person households, spread over 19 floors (8 per floor). On the third floor there are 5 lofts and a large common area with an outdoor terrace. All houses are approximately 50 m² and each has a height of at least 4 meters. The space can be freely divided each has their own balcony with mature trees, shrubs and plants.

The tower itself has been constructed very efficiently using

prefab columns and walls so that every floor (with the excep-

tion of the third) is identical. Naturally, all the houses are well

insulated and furthermore the trees provide extra cooling in

The Trudo Vertical Forest offers space for 125 social ren-

Dynamic place, special character Strijp-S is a district in development. It is a dynamic place with a special character and a distinct face. The tower residents

the summer.

status holders.

Ins and outs

liveliness that this entails. They should be happy to share their special place with all the others who come and go, work and relax, shop and play sports, go out, and otherwise experience it every day. The residents, selected through a matching process, are open to the special nature of the neighbourhood and want to make Strijp-S a friendly community together with Trudo. To achieve a greater diversity, a number of homes have been reserved for more urgent residents, status holders and flex residents. This creates a mix of residents that does justice to

both the assignment of the housing association and the special

A lot of care and attention has been paid to the green

appearance. Because each loft has a balcony with two large

green boxes, the building offers space for no fewer than 135

shrubs and 8,500 perennials grow both in and on the building.

Together they form a green oasis that leads to around 50,000

kilos of CO₂ absorption and 13,750 kilos of oxygen on an annual

foot of the tower is a 350 m² communal garden where residents

basis. But the vertical forest doesn't just extend upwards. At the

trees, some up to 6.5 meters high. In addition, some 1,500

character of the building and area.

Tall trees catch a lot of wind

show' all year round.

are located in the middle of this metropolitan area and all the

can meet and receive guests. The planting of the tower is a collaboration between landscape architect Laura Gatti, tree nursery Van den Berk, and green contractor DuPré. Together they have expertly implemented Boeri's vision. Green has also been given a common denominator as the blossoms and leaves all have a red or silver look or glow. In addition, the four seasons have been taken into account: due

to alternating growth and flowering phases, the forest will be 'on

Tree whisperers

Tree nursery company Van den Berk 'trained' the roots of 135 trees for two years so that they could eventually flourish in small containers and at great heights. Brenda Swinkels (Head of Sales): "By running a trial for two growing seasons, any teething problems have been eliminated.

This project must obviously go well straight away because

All the trees, shrubs and plants have been selected with great

care to take into account their sensitivity to wind, tolerance to

growth properties, as well as that they have a connection with

pruning, the required soil conditions, root ball development and

replacing a tree at a height of 50 meters is not easy."

the aesthetic vision of the architect. Before that, Van den Berk worked closely with Boeri's landscape architect Laura Gatti. Anyone who talks about flora, also thinks fauna. And according to Swinkels, more biodiversity is also a plus of this forest tower: "The expectation is that the tower will attract many birds and insects in the long-term. Butterflies, sparrows, great tits, ladybugs: everything that makes a real forest so nice and

In 2021, the Trudo Vertical Forest will start its first four seasons

cycle. The building will be completed and taken into use in

September 2021. With the Trudo Tower as a green eye-catcher in the centre of Strijp-S, the area not only sparkles, but also breathes. For, with, and around a special group of residents.

Onwards to the next step

THE TRUDO TOWER IN FIGURES 70 meters high

attractive."

- 19 floors 8 apartments per floor • 125 lofts/social housing
- 1 communal area
- 135 trees • 1,500 shrubs • 8,500 plants
- 4 collection tanks for 20.000 litres of rainwater each
- spaces varying in size • First floor: 1 office space Ground floor: bicycle shed for residents

• Clear floor height of 3.5m

Ground floor: 5 commercial

- 1st and 2nd floors: 125 storage rooms, one per loft

TRUDO

The Trudo Vertical Forest, made possible by: Stefano Boeri Architetti, Laura Gatti, Inbo, Stam en De Koning, Unica, Westo Prefab Betonsystemen, Adviesbureau Tielemans, Ten Hove techniek, Du Pré Groenprojecten, Van den Berk Boomkwekerijen, HB Watertechnologie, CeletctRon, Ergolift, Eurosafe

Solutions, Ennatuurlijk, Wijmoco Geveltechniek, Trahecon, Peter Lubbers, Peutz, EG Projecten, the city of Eindhoven, Strijp-S and all residents. More information?

Go to trudo.nl/trudo-toren