Timber! The call for wood-based construction

Light, flexible, easier to use and potentially cheaper, timber-based construction is back on the list of every climate aware developer and real estate investor.

In the Amsterdam Metropolitan Area, for example, developers, investors and local authorities are among those signing the new Timber Green Deal, based on a real commitment to the use of wood. 'Everyone involved in the real estate and development sector is more aware that building with timber on a large scale is essential if we want to meet the terms of the Paris climate agreement,' says Bob van der Zande, programme director Houtbouw MRA. 'And it will also speed up the supply of housing.'

Timber-based construction is environment friendly as well. Experts have calculated that if the one million new homes which the Netherlands will need by 2030 are made primarily from wood rather than concrete, it would save 50 megatons of carbon dioxide emissions.



Homes in BPD's Switi project in Amsterdam are largely built from timber and bamboo

WHAT HOLLAND METROPOLE PARTNERS ARE DOING

In the **Amsterdam** Metropolitan Region, 20% of all new residential property must be timber-based construction by 2025, as a start.

AM uses timber in both ground-bound and stacked single family homes, as well as office buildings.

Syntrus Achmea is calling on all developers and construction firms to use more bio-based materials.

The homes in **VORM**'s LOF Erasmusveld residential development in The Hague have timber frames and form part of a ribbon eco zone.

Rotterdam is home to the Global Centre on Adaptation, an international broker for climate change and housed in the world's biggest floating office, which has been largely constructed from timber.



(Cover image) No less than 96% of Ballast Nedam Development's Horizons Amsterdam project will be made from reusable material, including wood



Rotterdam is home to the revolutionary SAWA building, the first timber-based construction project in the Netherlands to reach a height of 50 metres



KCAP's B-Right Campus in Eindhoven is a largely wooden construction Illustration: Play-Time



VORM'S Roots Utrecht residential development uses timber for maximum flexibility

HERE IS WHAT HOLLAND METROPOLE PARTNERS SAY

'By building with wood, we are making a positive contribution to combating the climate crisis and to a healthier city.'
Bas Kurvers, Rotterdam alderman

'The built environment accounts for 40% of global carbon emissions. By using more natural construction materials instead of concrete and steel, and focusing more on circularity, the CO2 emissions driven by new construction by 2025 as a first step can be minimised.'
Ingrid Hulshoff, portfolio manager real estate, Syntrus Achmea

'Industrialisation allows the construction sector to offer a fast way of making sure the housing supply meets demand. Wood is light and easy to work with, making it extremely suitable for such processes.'
Wouter Disseldorp, concept developer VORM

'Climate change is the biggest challenge of our generation. We believe we must take responsibility and using wood, which is a sustainable construction material, helps us do this.'
MVSA Architects

'We try to persuade our clients to go for wood, and while lots of people talk about it, they have to actually take the plunge, rather than say it is all too difficult. Of course a building is never 100% wood, but it would be an enormous step forward if we got most of the concrete out of a building,'
Edward Schuurmans, partner KCAP

'A commitment to using wood brings challenges with it, such as finding suitable locations and making timber one of the requirements in tenders for building land. And we are continuing to stimulate and facilitate the use of wood in the market, so that it becomes more attractive.'
Marieke van Doornick, Amsterdam alderman

Why timber?

- Better for the environment: CO_2 reduction
- Better for the industry: NOx reduction
- Better for the housing crisis: speed and cost control
- Better for the building site: quieter construction
- Better for the planet: using renewable materials

Holland Metropole
Europe's best connected region
FIVE CLIMATE AWARE CITIES JOIN FORCES
TIMBER! A SHOUT OUT FOR WOOD
FUTURE-PROOF URBAN DEVELOPMENT

Adapting to stay dry in the Holland Metropole





1. Investment in greenery on the street, walls and roofs has been central to the Eindhoven International Knoop XL development

2. MVSA's Crossroads project in Amsterdam includes water storage to irrigate the roof garden as well as solar panels

The recent floods in the Netherlands, Germany and Belgium brought home just how important it is to tackle climate change, adapt to it and to deal with excess water caused by increasingly heavy rainfall.

'The climate crisis is one of the biggest challenges facing our and future generations and there is considerable public support for coming up with solutions,' says Jaime de Bourbon de Parme, the Dutch government's new international climate envoy. 'The relationship between humans and nature are at the heart of the matter, and this has only been strengthened by the pandemic.' Across the Dutch real estate sector, climate change targets are becoming increasingly important and the themes of circular construction, carbon emission reduction, heat stress and water management are at the forefront of the Holland Metropole approach.

HERE IS WHAT HOLLAND METROPOLE PARTNERS SAY

'We integrate climate adaptation into the area, not at the level of individual buildings. Water, for example, is not a threat but an opportunity to devise and realise distinctive environments with the ability to capture and buffer water.'
Ronald Huikeshoven, CEO AM

'We include climate adaptation programmes in our portfolios and are adding roof terraces to our real estate. They both store water and help to moderate temperatures in and around the buildings.'
Bouwinvest

'We are working to create areas which are resistant to excess water, drought and heat. These areas encourage biodiversity because they are water-rich environments. Climate adaptive developments require tailor made approaches and particular attention for management and maintenance.'
Sladjana Mijatovic, sustainability manager BPD

'We are creating a city in which heavy rainfall does not damage our homes and roads, in which you can find a cool place to sit on hot days and in which greenery survives drought. Climate adaptation is not just about technical solutions, but about making Eindhoven a better place to live and work.'
Rik Thijs, Eindhoven alderman

'Our bus shelters with green roofs are now world famous. They are bee-friendly, and contribute to water storage and climate adaptation.'
Klaas Verschuure, Utrecht deputy mayor

'Vesteda explicitly integrates the sustainability performance of potential new acquisitions and large renovations into our investment decision process. EU regulations also require institutional residential investment funds like us to make our sustainability policy transparent, tangible and measurable.'
Pieter Knauff, CIO Vesteda

'Our own company building code is tougher than current regulations in the Netherlands. We use infiltration systems to keep water at the location and maintain ground water levels. We are using fewer tiles and more greenery in gardens and putting climate neutral roof gardens on apartment complexes.'
Onno Dwars, CEO Ballast Nedam Development





WHAT HOLLAND METROPOLE PARTNERS ARE DOING

Syntrus Achmea has cut the CO2 emissions of its residential portfolio by 34% compared with 1990.

The city of **Eindhoven** is developing a new park and bringing an underground river, the Gender, back to the surface to absorb rain water.

The 10,000 trees, shrubs and flowering plants covering MVSA's Wonderwoods development in **Utrecht** breathe in carbon dioxide and breath out oxygen, as well as absorbing air pollutants and providing shade in summer.

Vesteda has developed a tool to analyse the six most important climate change risks in the Netherland.

Bouwinvest has improved the energy label of the World Trade Centre in Rotterdam from E to A in three years.

Improving mobility is key in **The Hague** and the city is concentrating its development efforts on the three main railway stations and brownfield sites with good transport links.

Amsterdam has introduced 'rainproof' standards for new buildings, which includes agreements on water storage and irrigation for roof garden.

Rotterdam has set up a programme to make 18 square kilometres of the city's roofs multifunctional, ranging from planting and water storage to developing play areas and energy generation.

3. AM's Bajeskwartier project, which involves converting a former prison complex, uses heat from a nearby data centre and collects and buffers rainwater

4. Park20|20 is a completely circular office complex in Haarlemermeer. Photo: Michel Campfens

Climate change, the targets

- **49%** Cut greenhouse gas emissions by 49% in **2030** compared with 1990 (Amsterdam has set a target of 55%)
- **95%** Cut greenhouse gas emissions by 95% by **2050**
- **0%** Phase out all use of natural gas in homes by **2050**
- **0%** Phase out the sale of diesel and petrol cars by **2030**

Holland Metropole: one European region primed for the future

Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven are thriving cities in their own right. As an alliance, they form one of the most competitive regions in the world.

By working together, the five cities of the Holland Metropole are ensuring a stable, innovative and inclusive future for all their inhabitants

Climate change, the circular economy and sustainability are central to the Holland Metropole's strategy for the future. At the same time, each city has its own specialisms

Key facts

Holland Metropole has advantages in three key areas: **connectivity**, **innovation** and **liveability**

One of the 10 most important regional economies in the world

A public transport system which is among the fastest and most reliable in the world

Super-connected to other European metropolitan areas, thanks to its central location and excellent air and road links

Excellent digital connectivity with high internet speeds and broadband penetration

A strong DNA of tolerance and a good work-life balance

A high standard of public services

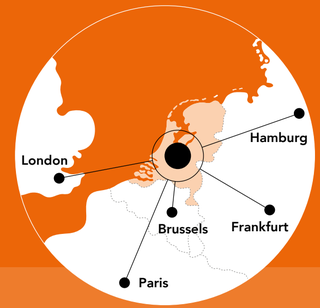
Amsterdam: finance, the creative sector, IT

Utrecht: Health, IT, education

Rotterdam: transport, clean-tech

The Hague: diplomacy, cyber security

Eindhoven: advanced IT, materials science



'Despite their close proximity and connectivity, the Holland Metropole's five largest cities are usually observed and measured in isolation. But they should be seen as part of one integrated, interdependent region'

Greg Clark, chairman The Business of Cities