

# ONE GIANT LEAP TO “PARIS PROOF” BUILT ENVIRONMENT IN THE NETHERLANDS



The reinvention of the modern workplace, is a silver lining of the pandemic with a greater spotlight on health, wellbeing, sustainability, and innovation. Additionally, international climate accords have sent real estate developers and occupiers scurrying to conform to the new regulatory norms. An environment trailblazer, the Netherlands introduced the “Paris Proof” standard of reducing energy consumption in the built environment by two-thirds compared to the current average by 2050. Mayada Shaaban, Director Projects, EDGE and André Leeuwis, Managing Director, Drees & Sommer Netherlands share the blueprint of the “biggest and coolest” redevelopment project by ABN AMRO.

*The interview was conducted by Jagori Dhar*

Since its inception in the 1990s, Netherlands based real estate developer, EDGE has taken a 360° approach based on wellbeing, sustainability, design, and technology. So when ABN AMRO pledged to slash its energy consumption in a matter of a decade to meet the Paris climate targets by 2030, EDGE approached the international banking group to support their real estate strategy and the ambitious renovation of their Foppingadreef office in Amsterdam. They appointed Drees & Sommer Netherlands to manage the design and deliverable processes.

## **What hurdles did you encounter at the Foppingadreef campus?**

**Mayada Shaaban (M.S.):** *By definition, an existing building is more challenging as you have to work with the existing structure. In an existing building, you never know what to expect! We often see that the drawings don't exactly match the conditions on-site. We have to perform analyses to fully understand the existing structure. And even after that, in our experience with redevelopments, it's not until the demolishing phase that you really find out how the building is constructed.*



**How do EDGE and ABN AMRO approach sustainability in redevelopments?**

**M.S.:** ABN AMRO and EDGE are both strong advocates of sustainability and circularity, not only in their real estate portfolios but also in their company strategies. ABN AMRO created Circl in Amsterdam as the ultimate example of a circular building. They decided to piggyback on the scheduled maintenance of their bank office in Foppingadreef to redevelop it as a model of circularity and sustainability, striving for at least a BREEAM “Excellent” rating. We will incorporate many existing elements of the office building in the new extension. For example, the current concrete facades will be removed to create open facades towards the foyers that will be completely integrated into the new office floors. The existing facade elements will be reused elsewhere throughout the building.

**Why did you partner with Drees & Sommer to work on this project?**

**M.S.:** We felt that Drees & Sommer could identify with the elements that are important for this redevelopment and bring an added value as there is so much expertise within the company.

**The emission goals have been brought forward by 20 years for this project.**

**What were the initial challenges when you were brought on board?**

**André Leeuwis (A.L.):** Where sustainability is concerned, we are on the same page with EDGE, currently project managing their Valley project also in Amsterdam, another landmark in modern ecological buildings. When we were assigned in April 2021, we were faced with the challenge of delivering a preliminary design in line with the agreements with ABN AMRO. However, we truly understand their vision and are familiar with their practices.

**Energy efficiency and reduction are at the heart of this project. What measures have you undertaken to bring down energy consumption by 75%?**

**M.S.:** We are focusing on improving the internal climate by renewing the installations with a more energy-efficient set-up, replacing the glass facades with insulated glass, adding heat cold storage and solar

panels on the roof and facades. We would be installing energy-efficient smart ceilings with LED lighting, the sensors in the ceiling also make it possible to control the heating and cooling of individual workspaces. The new building will generate energy through its solar panels and heat-cold storage. We’ve also paid special attention to the green cover both inside and outside by reusing existing plants and trees as far as possible. The greenery in the atrium will also improve the air quality.

**A.L.:** Around 10,000m<sup>2</sup> of solar panels (comparable to two football fields) will be added to the complex’s rooftop and facades. The combination of high-end technology and the commitment to invest in a healthy, sustainable, flexible and cost-efficient office building will make this property future-ready. Thanks to our Cradle to Cradle expertise, we would add value by bringing an informed perspective on all circularity related issues. The most remarkable aspect of such developments is that we will maximize the Floor Space Index (FSI), thus creating new square meters without taking up more land.



**What role does digitization play in redevelopment projects?**

***M.S.:** Creating a smart, innovative building is one of the drivers for EDGE. We have modelled the entire building on BIM. It means that each discipline in the design team integrates its design into a 3D model. This allows for clash controls in an early stage of the process. When completed it will be a smart building, an office ready for tomorrow. It's like putting the existing building in a time machine and fast-forwarding it from the 1980s to the 21st century. We do not envisage an office to be just a place where users plug in a laptop and get on with work but an ecosystem facilitating smart interfaces and interaction.*

**What is the most exciting element of this project?**

***A.L.:** Often referred to as the coolest redevelopment in the Netherlands, what is most satisfying is that we can contribute through our international wealth of experience and the know-how of managing complex redevelopment projects in the Dutch market. When completed in 2025, the building will not only be a smart and sustainable structure but also an inspiring avenue for its users to come together and enjoy the unbeatable combination of modern technology and sustainable principles.*

**Did you know? Digitization: Smart buildings are efficient**

*By Klaus Dederichs, Partner and Head of ICT, Drees & Sommer SE*

Digitization holds great potential on the road toward an ecologically sustainable real estate stock. Smart buildings, due to their networking, help lower energy consumption and reduce CO2 emissions because they make it possible to coordinate processes and sub-systems within the building and regulate them when necessary. This means rooms are only heated or cooled if they are actually being used, and the lights turn off automatically when no one is in the room. This helps drastically reduce energy consumption and, from the investors' perspective, is an important step toward fulfilling the ESG criteria. The necessary software and hardware (IoT) can also be retrofitted in existing buildings. Smart grids also make it possible to increase energy efficiency. With this, smart buildings can be interconnected with a smart power grid to replace energy easily and efficiently with the surrounding urban infrastructure when necessary.

However, digitization also helps ensure more efficiency when building and renovating buildings. Building information modeling (BIM) creates a digital clone of a building in a virtual space. This makes it possible to calculate the comfort criteria at different times of the day or year on the basis of weather data, lighting, insulation, heating and cooling, and ventilation. The necessary parameters for the lowest possible energy consumption with simultaneously high comfort for the users are the chief focus in the planning phase.



**“Redevelopment is by definition the highest form of sustainability and circularity in the built environment.”**







“Unlike the impression that in the Netherlands, everyone is a circularity champion, we do still have skeptics. But with reliable business cases, a lot of owners are willing to take chances.”



**Mayada Shaaban,**  
Director Projects, EDGE

Mayada brings 11 years of experience in real estate (re)development. As one of the project directors at EDGE, she is responsible for the complex redevelopments with a key focus on sustainability and energy efficiency. She is passionate about developing sustainable buildings, that adds value to the built environment in terms of quality and architecture. She holds a master’s degree in Real Estate and Housing from the Technical University in Delft. Apart from this, she is currently working on the Edge Amsterdam West project, scheduled to be delivered later in 2021.



**André Leeuwis,**  
Managing Director, Drees & Sommer Netherlands

As one of the Managing Directors at Drees & Sommer Netherlands, André is responsible for managing the quality of the Dutch office’s services along with building performance and project management assignments. As a senior team leader, he brings almost 40 years of experience in engineering, consulting and project management. He studied Building Techniques in graduate school. André has extensive expertise in dealing with complex project environments from design to execution stages

