

CREATING SPACE WITH SUSTAINABLE VALUE



INTERVIEW WITH JOSÉ MARTÍNEZ,

Managing Partner at Groß & Partner

Each year, around 40% of greenhouse gas emissions are attributable to the construction and operation of buildings both in Germany and worldwide. How can the building sector reduce its current negative impact on the environment and instead contribute to sustainable development?

As project developers, we're involved in every stage of the building lifecycle. This includes construction, utilization, and demolition. To align our project work towards sustainability, we focus on the issues with the highest potential for emission savings. In construction, these include the choice of materials – most notably, procuring the most sustainably produced concrete and steel available on the market – and the way we deal with existing buildings. We also expect support from policymakers in this regard. Government subsidy programs must be geared towards improving resource efficiency to bolster their impact on sustainability.

Also, we believe our industry should network much more closely. Individual companies have so much expertise to share on sustainability-related topics – drawing on their experience in the resource-efficient construction and operation of buildings. We just need to work together and make that knowledge more widely available. We also see a role for tenants to play, as they can do their part to protect the climate by adopting more resource-friendly lifestyles. However, more progress is needed in that area.

To foster the sustainable development of our industry, we maintain a close dialogue with all our stakeholders: policymakers, commercial investors as well as private buyers and tenants.

Groß & Partner also revitalizes existing buildings. In what respects can sustainability benefit from investments in inventory?

The construction of new buildings always generates CO₂-emissions. Through revitalization, we can cut these emissions considerably – by binding large quantities of CO₂ in the form of so-called "gray energy". Consider the example of our Tower Y project: In sustainably refurbishing the former Union Investment high-rise, we will avoid 12,000 metric tons of CO₂ emissions that otherwise would have been released into the atmosphere by its demolition and the construction of a new building altogether. That number is roughly equivalent to the amount of CO₂ that 20 hectares of forest can sequester within a period of 100 years.

"At Groß & Partner, sustainability and ESG concerns have been a core dimension of our business for many years."

José Martínez is responsible for project and staff acquisition as well as all ESG-related topics.



However, the revitalization of existing buildings is a long way from being a 'one size fits all' solution. Apart from good access to infrastructure and transport, buildings also need to fulfill certain basic parameters, such as sufficient ceiling height and a durable building structure. If these conditions are met, the revitalization process can restore buildings to functionality for another 70-100 years.

For many years, sustainability has been part of Groß & Partner's corporate philosophy. Where is your focus in living up to this commitment?

At Groß & Partner, we made it our business early on to lead the way in tackling the challenge of aligning real estate project development with sustainability concepts. Our Deutsche Börse building in Eschborn, for instance, was the very first building in Germany to have been awarded a LEED Platinum certification. In implementing our sustainability vision, we place special emphasis on the pooling of expertise and the early involvement of our various stakeholders.

We work together with the manufacturing industry from the very outset of construction planning to ensure that we take into account the durability and recyclability of all materials that are going to be used. Our goal is to close the loop. For example, the raised floor panels we use are made of 100% recyclable material that can be fully reused after a building's demolition. In the realm of building services engineering, our cooperation with a lighting manufacturer is quite literally a shining example: After the first life cycle has come to an end, the lighting fixtures installed in our buildings are collected and dismantled into their individual pieces to ensure that they will be reused in production later on.

We also include the people who work and live in our buildings. After all, to operate highly efficient buildings in a truly sustainable fashion, accurate steering is crucial. Thus, it is of utmost importance for us to train qualified building technicians who can ensure the highly efficient use of smart real estate.

What role does sustainability play today for private and commercial tenants?

First, we need to acknowledge one significant legal distinction between the two. Companies, as opposed to private tenants, are required by law to transparently report their emissions and not exceed the permissible level of CO₂ output. The larger the company, the stricter the requirements, which means that there are more investors who have a real interest in the CO₂ balance disclosure. Thus, for companies, sustainability is no longer a "nice to have" strategy but a "must."

On the other hand, private tenants are following suit. People are becoming increasingly aware of the positive contribution that each and every one of us can bring to the sustainable transformation of our homes, simply by tweaking our individual behaviors. Likewise, private residents more and more come to understand that simple changes, such as modern windows and water-saving fixtures, can help protect the climate and the environment. Financial savings associated with energy-efficient living practices provide an additional incentive, especially with soaring energy prices.



As a real estate project developer, what challenges and limitations do you face in the sustainable transformation of construction?

If sustainable alternatives do not immediately pay off financially, we may encounter obstacles in the transition to more eco-friendly construction practices. Our biggest challenge, therefore, is to bring all our stakeholders together and find common ground in our commitments towards achieving sustainable transformation.

In terms of technical limitations, the production of steel and concrete remains the central issue. It is clear that wood can't provide the only answer. This is why it is essential to focus our collective effort on making the production of steel and concrete more sustainable. What fuels and what kind of raw materials are being used in the production processes? Players all across the industry are already developing innovative and sustainable solutions to tackle these issues. Hence, we benefit tremendously from having the manufacturing and processing industries by our side as sparring partners in the sustainable transformation of our projects.

Continuous change is necessary to get ahead of future challenges. What can be expected from GroB & Partner in the area of sustainability in the near future?

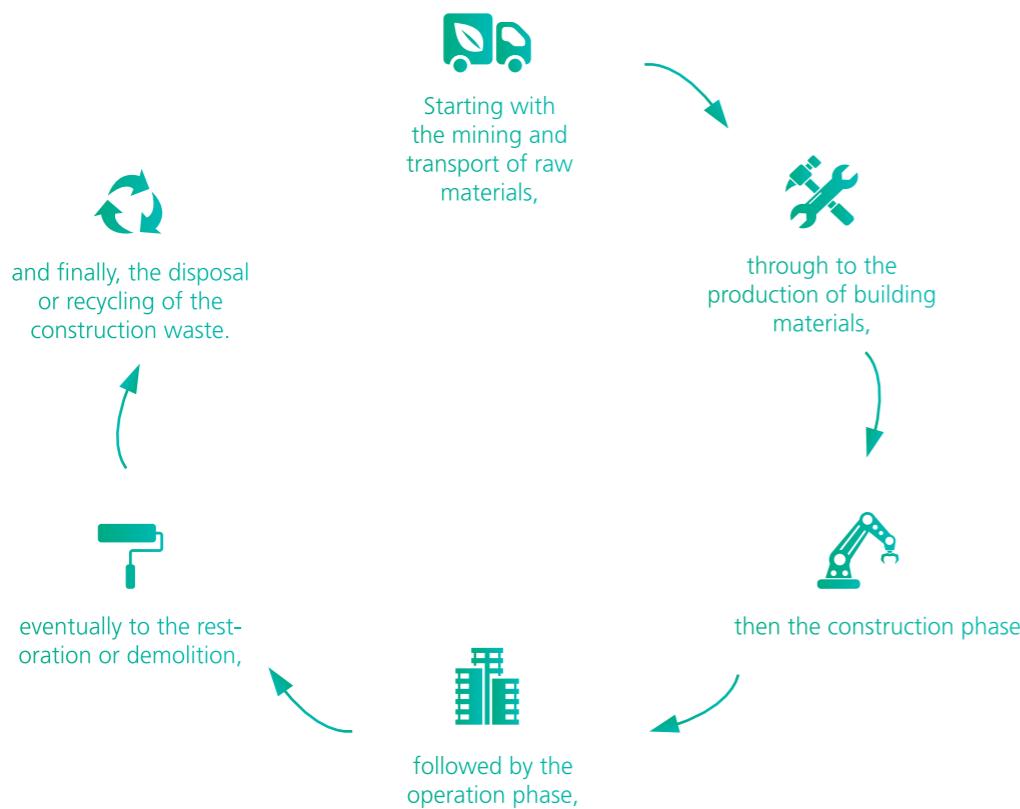
We want to channel our vast experience in project development into the sustainable transformation of our societies at large. This includes passing on our expertise to the construction and real-estate industries, as well as intensifying our communication and dialogue with developers and the scientific community. In the near future, our 'Thinking Beyond Space' ideas lab will provide a platform for all relevant stakeholders to get in touch and exchange pioneering ideas, allowing us to learn from one another. We believe that initiatives like these will be necessary in the pursuit of sustainability across the value chain.

In the same spirit, we would also like to cooperate more closely with universities and research institutions in the drafting processes of certificates and standards. Further, we believe in the importance of advancing training and education in the field of sustainable real estate development and would like to engage more in the processes of scientific innovation.

OUR IMPACT

Why what we do today will matter tomorrow

40% of global CO₂ emissions each year are attributable to the activities that occur through the various stages within our **buildings' lifecycles**.



Therefore, to achieve the 2015 Paris Agreement climate targets of carbon-neutrality by 2050, the sustainable transformation of the building and construction sector is a top priority.

As real estate developers, we bear a great deal of **responsibility** in redefining the entire lifecycle of buildings. We have been working at the **cutting edge of innovation** to make our efforts towards the **Paris climate targets** truly count. Towards this end, we follow a three-pronged strategy in line with the recommendations of the **Global Alliance for Buildings and Construction** (GlobalABC):

- ▶ Cutting the **primary energy demand** of buildings
- ▶ **Decarbonizing** energy supplies
- ▶ Reducing **embodied carbon**, otherwise known as "gray energy"

In streamlining the entire **lifecycle** of our construction projects towards sustainability, we convert the major **climate impact** of our industry into a key leverage point for **sustainable change**, laying the groundwork for a bright tomorrow.

CREATING SPACE WITH SUSTAINABLE VALUE

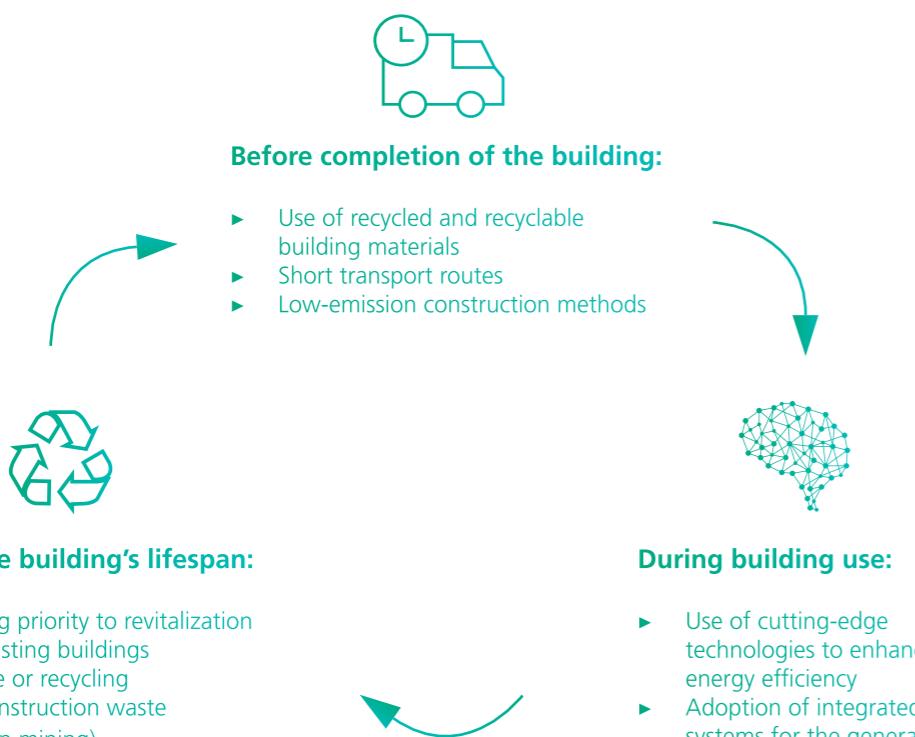
How we live up to our responsibility

To systematically align our project work with **sustainability criteria**, we have drawn up a set of guidelines based on the **UN Sustainable Development Goals** (SDGs). Out of the 17 goals, we have identified 10 that we can contribute significantly to. Six fields of action are associated with three thematic focal points:



1. CLIMATE AND ENVIRONMENTAL PROTECTION

We achieve **CO₂ emissions reduction** throughout a building's lifecycle primarily through **energy efficiency** and **closed-loop recycling**:



In this way, we counteract not only **climate change**, but also avert pollution of our soil and water through industrial waste. In addition, as an urban district developer, we also contribute to revolutionizing mobility behaviors of city dwellers. All our buildings provide or will soon provide **e-charging stations** with **green electricity** and connections to local public transport.



2. PEOPLE IN FOCUS

In all our endeavors, we are guided by a **holistic understanding of sustainability** that encompasses both **ecological** and **social dimensions**. As service providers in the real estate industry, we fulfill basic needs by providing safe and inspiring spaces for people to live and work in. Therefore, we set ourselves the highest standards for every single building we create. In addition to **appealing apartments and offices**, we also integrate **open and inviting spaces** into all our projects, designed to accommodate spontaneous encounters and vivid interactions. By **maximizing green spaces**, our construction projects also help improve air quality and preserve biodiversity in urban areas, thus making the urban environment more vibrant and livable overall.

In our building projects, we also promote social integration by incorporating **subsidized housing** into every building's design and layout. In addition to our project work, we also undertake initiatives to champion cultural institutions such as **art galleries and museums**, support local communities by providing financial support to **sports clubs**, and make annual donations to **children's charities**. In the context of the current military conflict in Eastern Europe, we have committed to making unused residential spaces available to people seeking shelter free of charge.

Finally, we also measure our sustainability commitment by the way we treat our **employees**. To eliminate discrimination of all kinds from our offices, creating an atmosphere of **respect** and **appreciation** is a top priority for us.



3. INTEGRITY & TRANSPARENCY

Through close cooperation with renowned institutions for sustainable building certification, including the **German Sustainable Building Council** (DGNB), we ensure **transparency** and **accountability** in the implementation of our sustainability vision. We also pay careful attention to the requirements of the **EU taxonomy** in our project work and the design of our investment fund products.



THINKING BEYOND SPACE

How we contribute to the sustainable transformation of the building sector

To merge our **expertise** as construction project developers with **new ideas** from research and start-ups, we decided to establish an in-house ideas lab: "**Thinking Beyond Space**".

Working in close cooperation with external experts and under the guidance of an **innovation leader**, employees from our specialist departments will devise solutions on how we can implement our **sustainability goals**.

The core focal points of the Ideas Lab will be:



CO₂-reduction in construction and operation



Closed-loop recycling

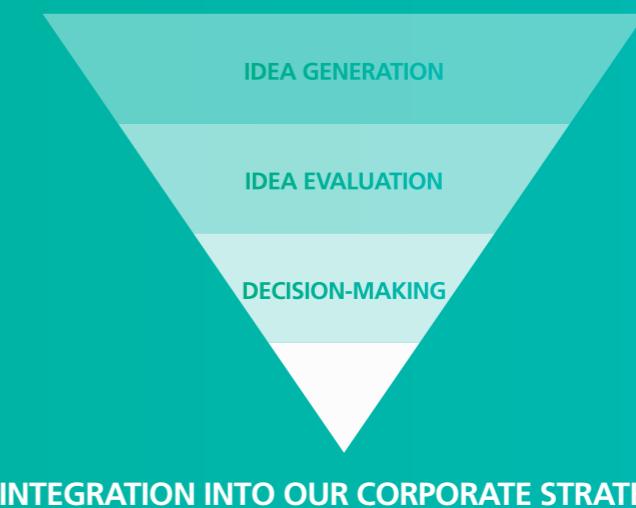


Gearing up our **project management design** to address identified sustainability issues

Following a structured process designed to bolster the generation and evaluation of ideas, we will make sure to incorporate the most **promising concepts** with a strong sustainability impact into our **corporate strategy**.

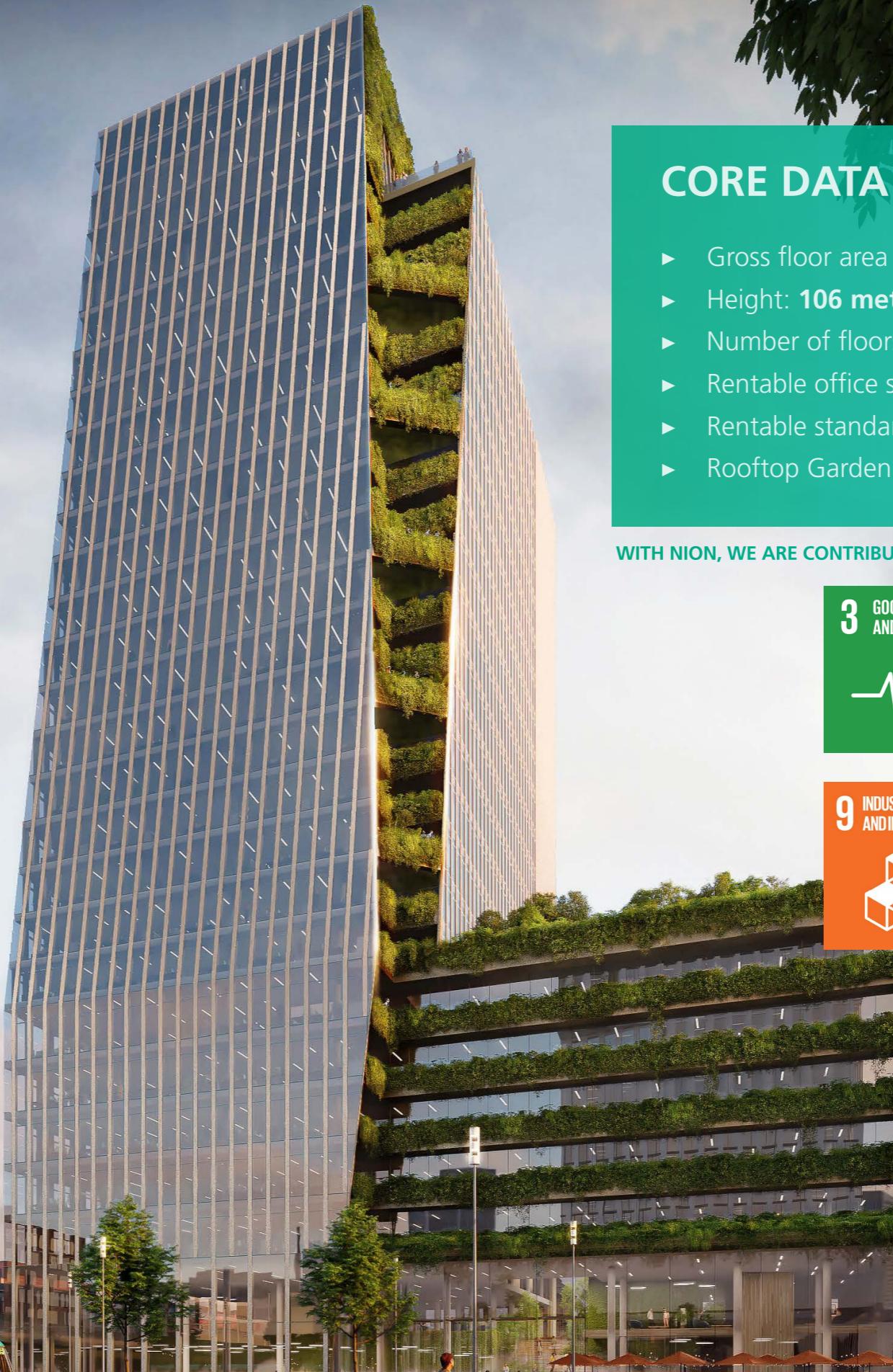
In this interdisciplinary exchange, not only will we **learn** from others – we will also be able to **share** our wealth of experience from decades of project development with other players in the field.

In this way, we will bring our single most **valuable** contribution – that is, our carefully assembled **knowledge** – to the table, making it available for the benefit of a sustainable pan-industry transformation. At the same time, we will prepare for a future in which **continuous innovation** processes, combined with a **hands-on mentality**, will make a decisive difference more than ever.



NION

New visions for a green future



CORE DATA OF NION:

- Gross floor area (GFA): **45,000 m²** (above ground)
- Height: **106 meters**
- Number of floors: **30**
- Rentable office space: **38,000 m²**
- Rentable standard floor space: **1,390 m²**
- Rooftop Garden space: **1,500 m²**

WITH NION, WE ARE CONTRIBUTING TO THE ACHIEVEMENT OF THE FOLLOWING SDGS:

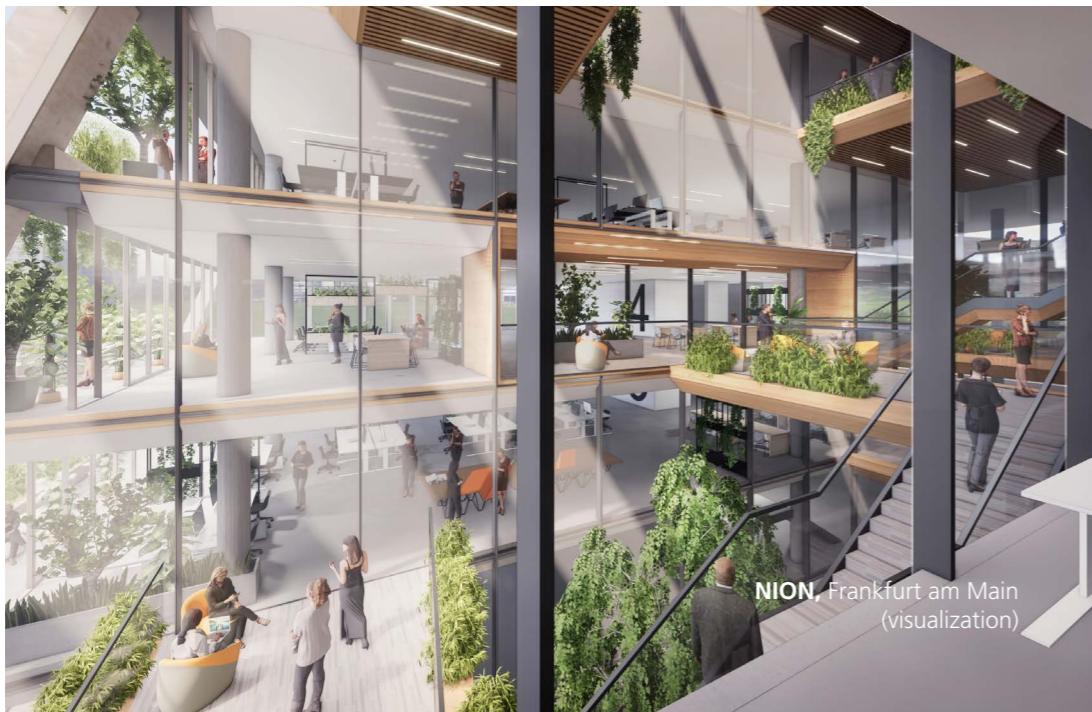


NION

With **NION**, Groß & Partner is setting **new benchmarks** in the realm of sustainable construction. Not only are we designing the office building in Frankfurt's *Europaviertel* ("European District") in line with the **latest sustainability standards**. What is more, we will be giving life to our understanding of a **truly holistic sustainability concept**.

The building's eco-friendliness is apparent at first glance: The expansive exterior greenery turns the building into a **lush green oasis**, radiating even from afar. The abundant plants and trees indoors ensure a **natural climate** in the offices and other shared spaces. In constructing the 106-meter-high, 30-story building, we emphasize the use of **sustainable and regional building** materials. Additionally, by establishing a **reforestation program**, we will completely offset the CO₂ emissions generated before and during construction over a period of 30 years.

Once the building is in full operation, we will significantly reduce its energy consumption drawing on **integrated smart building technology**. However, our climate protection efforts do not stop there. In addition, we will supply part of the remaining energy demand ourselves through **photovoltaic façades** and **geothermal energy**. In the building interiors, air sensors with corresponding filters will ensure high air quality. Along with the extensive exterior and interior greenery, the rooftop gardens will provide additional animal habitats (e.g., nesting boxes and a butterfly farm).



CERTIFIED SUSTAINABILITY:

The NION high-rise will be built according to the highest standards for sustainable buildings – **DGNB Platinum** – fulfilling the KfW requirements for Energy Efficient Houses in the **40 EE Class**. (*SDGs 7, 12, 13, 17*)



CO₂ NEUTRAL CONSTRUCTION:

A reforestation program with approximately **5,000 trees** will fully offset the CO₂ emissions generated during construction. (*SDGs 12, 13*)



SMART BUILDING TECHNOLOGY:

Day- and season-dependent lighting, intuitive air conditioning and central load management will ensure **efficient use of energy**. (*SDGs 7, 13*)



CAREFUL STEWARDSHIP OF NATURAL RESOURCES:

The use of wood from mainly **regional and sustainable forestry** guarantees the most environmentally friendly construction possible. (*SDGs 12, 13*)



PLANET-FRIENDLY ENERGY PRODUCTION:

The use of **geothermal energy** will cover up to 70% of heating and up to 40% of cooling loads, offering a savings potential of **180,000 kWh** per year. In addition, the **large-scale photovoltaic façade** will contribute to sustainable energy production. (*SDGs 7, 13*)



INTENSIVE GREENING:

A **1,500-square-meter rooftop garden** will provide ample green space. Inside the building itself, a wide variety of plants and trees, especially in the entrance area, will contribute to improved air quality. (*SDGs 3, 6, 11*)



LOW-EMISSION MOBILITY:

The building's central location in Frankfurt's *Europaviertel* offers excellent public transport connections. In addition, **e-charging stations** will be provided, and **bicycle traffic** will be encouraged with parking spaces and changing rooms. (*SDGs 11, 13*)

FOUR FRANKFURT

Live the city

CORE DATA OF FOUR:

- Floor area (FA): **213,000 m²**
- Rentable office space: **115,200 m²**
- Rentable residential space: **63,700 m²**
- Hotel space: **20,500 m²**
- Hospitality/retail: **6,600 m²**

WITH FOUR, WE ARE CONTRIBUTING TO THE ACHIEVEMENT OF THE FOLLOWING SDGS:



FOUR FRANKFURT

SUSTAINABLE DISMANTLING:

Conserving resources right from the start.

(SDGs 9, 12, 13, 17)



SUSTAINABLE USE OF EXISTING BUILDINGS:

When the existing buildings on the **former Deutsche Bank** site were demolished under our supervision in 2018, we paid special attention to the **separation, recycling, and disposal** of the resulting materials.



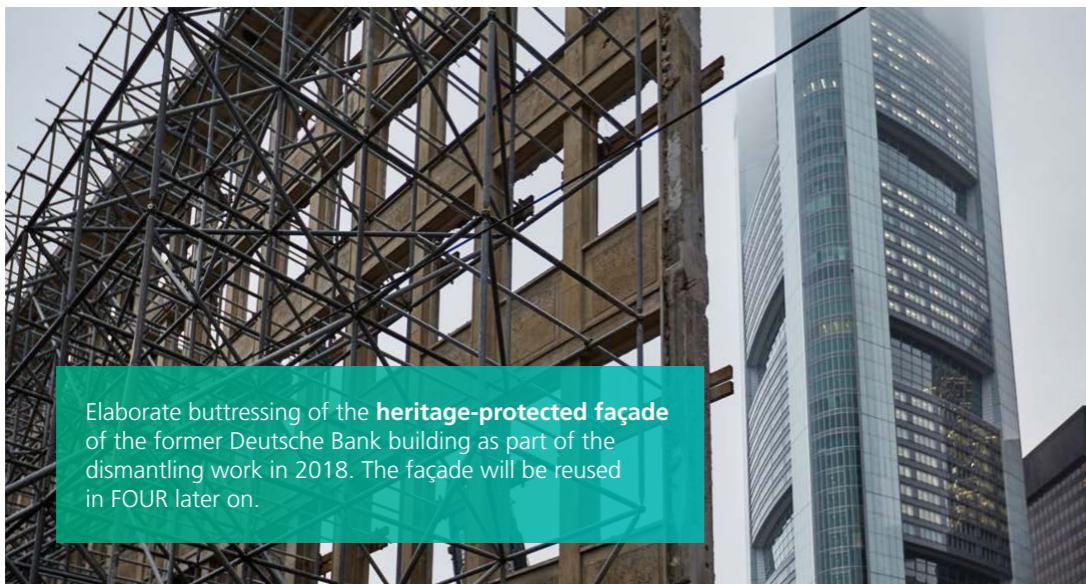
OPTIMIZED RECYCLING RATE:

90% of the recovered materials were recycled.



CERTIFIED RECYCLING MANAGEMENT:

In the construction of FOUR, material flows were meticulously logged and optimized. A strong focus was placed on **transparent communication** and the original building's **heritage-protected façade** was reused in FOUR. All this was reason enough for DGNB to award FOUR its highest distinction in 2020: Platinum. Groß & Partner, thus, received the **first certification** awarded by the DGNB for **sustainable building dismantling**.



Elaborate buttressing of the **heritage-protected façade** of the former Deutsche Bank building as part of the dismantling work in 2018. The façade will be reused in FOUR later on.

DGNB PILOT PROJECT "VERTICAL CITIES":

Contributing to sustainable neighborhoods.

(SGDs 3, 9, 11, 13, 17)



CERTIFIED SUSTAINABILITY:

The **DGNB** is accompanying our construction works as a pilot project within its recently introduced usage profile "**Vertical Cities**". This involves auditing both the overall project from a neighborhood development perspective and the individual buildings from a sustainability perspective, as well as certifying them after completion of the construction.



TRANSPARENCY AND PARTICIPATION:

To ensure that the extensive construction work on the four high-rise towers is **as respectful as possible of the interests of residents**, we have ensured that our **communication network** informs residents early on about the nature and scope of planned construction measures. In addition, we offer **guided tours** of the construction site at regular intervals to allow neighbors to directly approach us with their questions and comments.



LANDSCAPES:

With a **publicly accessible rooftop garden**, we place **1,000 m²** of **sweeping nature** at the heart of the city for the entire neighborhood to explore and enjoy.



SOCIAL COHESION:

Among FOUR's 600 apartments, **78** will be subsidized. In this way, we are contributing to social integration.

TOWER Y

Building for tomorrow on yesterday's foundations



CORE DATA OF TOWER Y:

- Gross floor area (GFA): approx. **28,000 m²**
- Number of floors: **23**
- Height: **102 meters**

WITH TOWER Y, WE ARE CONTRIBUTING TO THE ACHIEVEMENT OF THE FOLLOWING SDGS:



3 GOOD HEALTH
AND WELL-BEING



6 CLEAN WATER
AND SANITATION



7 AFFORDABLE AND
CLEAN ENERGY



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES
AND COMMUNITIES



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE
ACTION



17 PARTNERSHIPS
FOR THE GOALS

TOWER Y

REVITALIZATION:

Reduction of "gray energy" through the conservation of existing buildings.
(SDGs 9, 11, 12, 13)



EXTENSIVE REFURBISHMENT INSTEAD OF COMPLETE DEMOLITION:

Tower Y is being built on the foundation of the former **Union Investment office tower**. Instead of being demolished, the tower will be elaborately refurbished in compliance with the latest standards. The main load-bearing structure will be retained, and the building will be optimized to meet the requirements of **state-of-the-art** working environments.



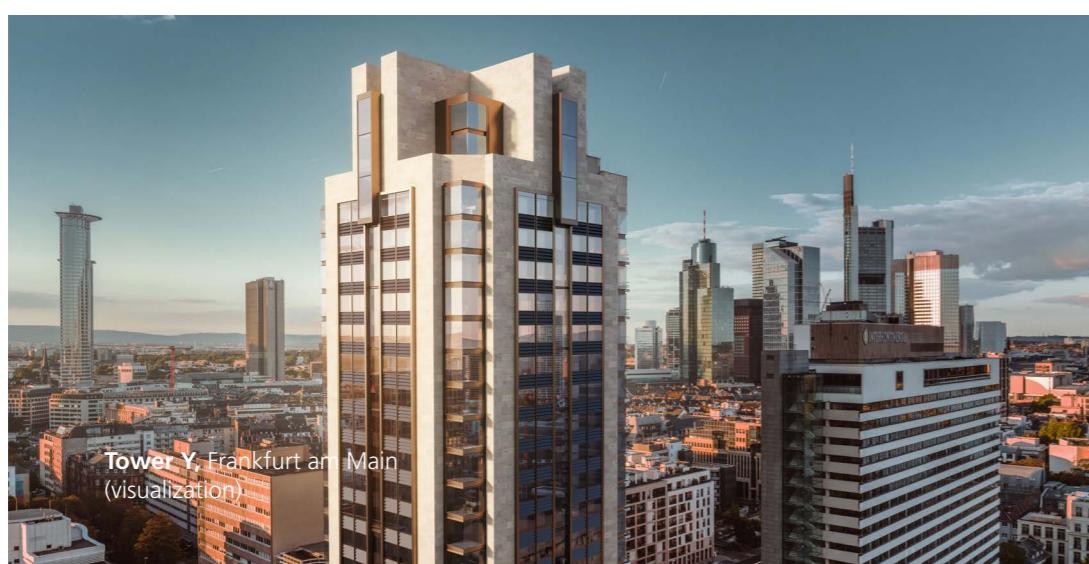
RESOURCE CONSERVATION & REDUCTION OF GRAY ENERGY:

Through revitalization, we are able to **avoid the waste and emissions** that would have resulted from the demolition of the existing building. This saves us approximately **12,000 metric tons of CO₂**.



SUSTAINABLE CONSTRUCTION:

A **hybrid-timber construction** method for the ceilings, in conjunction with the use of **recyclable materials**, leads to 50% in savings in **resource-intensive building materials**, such as concrete and steel. This corresponds to potential gray energy savings amounting to **1,600 metric tons of CO₂**.



Tower Y, Frankfurt am Main
(visualization)

ENERGY EFFICIENT BUILDING OPERATION:

Building sustainably beyond construction.
(SDGs 7, 9, 11, 13)



MEETING THE HIGHEST EFFICIENCY STANDARDS:

Tower Y meets the KfW requirements for Class **40 NH** efficiency buildings. That means Tower Y's primary energy demand will be at least **60% lower** compared to buildings that only meet the minimum legal standards under the German Building Energy Act. Tower Y will also meet the requirements of the "**Sustainable Building**" quality seal.



PLANET-FRIENDLY ENERGY GENERATION:

Geothermal energy use will cover up to **60%** of heating loads and up to **29%** of cooling loads. This amounts to a savings potential of **180,000 kWh** per year. In addition, the **large-scale photovoltaic façade** will contribute to sustainable energy generation.



INTELLIGENT BUILDING TECHNOLOGY:

A **smart building control system** – with demand-driven room conditioning and lighting management using LED-based presence detectors – ensures energy is used only when needed.



INTEGRATIVE FACILITY TECHNOLOGY:

Overridable sun shading, heat recovery, elevators with recuperation, and large-scale latent storage contribute to the building's utmost **efficient use of energy**.

FACTS & FIGURES

Groß & Partner 2021



Share of renewable energy
(headquarters):

100%



Certified projects
(minimum DGNB Gold or comparable):

550.000 m² GFA



Number of employees:

385



Gender distribution:

52% female employees

48% male employees



Percentage of concrete certified by the Concrete Sustainability Council (CSC):

100%



Subsidized housing:

50.000 m²



E-charging stations, either completed or under construction:

432



Donations and sponsoring:

Arts and culture, sports clubs, refugee aid for Ukraine, and SOS Children's Villages

OUR SUSTAINABILITY GOALS

- ▶ Max. 500 kg CO₂ e/m² embodied carbon for new buildings
- ▶ Gradual increase in **emissions compensation** for new buildings
- ▶ Climate protection roadmap for **climate neutrality in building operation** from **2030** onward
- ▶ **100%** energy-efficient houses in class **40, 40 EE, 40 NH or 40 plus** for new buildings
- ▶ **100%** leases with **green lease** clauses from **2024** onward
- ▶ Use of **concretes** that are as sustainable as possible and certified as such (CSC)
- ▶ At least **80% recycling rate** for construction and demolition waste by **2023**
- ▶ Forward-looking integration of the **closed-loop principle** in the planning of new buildings
(goal: 100% material loop in case of later deconstruction)
- ▶ Gradual increase in the proportion of **women at higher management levels**
- ▶ Certifications: By 2024, **95% certified buildings** upon completion
(at least DGNB Gold or comparable)
- ▶ **EU taxonomy compliance** for all new construction projects
(environmental goal: climate protection)
- ▶ **Regular sustainability reporting starting in 2023**



IMPRINT

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