

EUREF Campus Düsseldorf

EUREF-Campus
Düsseldorf meets
the German Federal
Government's CO₂
climate protection targets
for the year 2045 – right
from the start.

A place of the future

IN THE CENTRE OF THE RHINE-RUHR METROPOLITAN REGION

EUREF-Campus Düsseldorf is an international showcase for the transformation of the energy and mobility sectors, set up by EUREF AG. It is the second innovation campus of its kind in Germany. EUREF AG draws on over twelve years of experience from Berlin. These insights, especially the science and research around issues for the future like sustainability, energy and mobility, will be taken to Düsseldorf to be further developed.

This sustainability and innovation campus will be constructed in North Rhine-Westphalia (NRW), the largest German state and the leading energy region in Europe. The location right next to the Düsseldorf International Airport also offers optimum prerequisites for mobility development projects – including Urban Air Mobility, public transportation hubs and last-mile mobility. Established companies and start-ups from the innovation community in the Rhine-Ruhr metropolitan region as well as science and research are based in NRW and are thus invited to use the inspiring environment of EUREF-Campus Düsseldorf for working and shaping a climate-neutral future.

WE WORK AND DO RESEARCH ON:

- ◆ Transformation of the energy sector
- ◆ Mobility of the future
- ◆ Smart building
- ◆ Energy efficiency
- ◆ Climate protection



Innovation campus and real-life laboratory

SHOWCASE FOR THE TRANSFORMATION OF THE ENERGY AND MOBILITY SECTORS

Designed as an innovation campus, EUREF-Campus Düsseldorf will take on a significant position in the centre of the Rhine-Ruhr metropolitan region. It promotes close exchange between companies for development and research purposes. Some 3,500 people will be working in this inspiring setting as of 2023.

EUREF-Campus Düsseldorf will be a place where ideas are conceived, implemented and tested for their success. The use of intelligent architecture, regenerative energy sources, new forms of energy storage and systematic networking of state-of-the-art technology, will create a highly visible place of the future and an example for many metropolitan areas around the world. The campus will also meet the German Federal Government's CO2 climate protection targets for the year 2045 – right from the start.



Düsseldorf is the ideal location for our second EUREF-Campus because of its outstanding accessibility in western Germany and Europe, its pole position as a successful FDI destination and the vibrant start-up scene in the region. We look forward to contributing to both the local and regional innovation community.

Our aim is to show that the transition of the energy sector to a climate-neutral system is not only possible but affordable, too."



REINHARD MÜLLER
CEO
EUREF AG
.....

© Andreas Schwarz

65,000
sqm
rental space

300 - 20,000
sqm
variable office space units

3,500
employees
on campus



EUREF Campus
Berlin

Since 2008 – EUREF-Campus in Berlin

5,000 EMPLOYEES WORKING ON FUTURE SUBJECTS

Some twelve years ago, Reinhard Müller, architect and CEO of EUREF AG, had the idea of a European energy forum for mobility and the transformation of the energy sector. Since 2008, the EUREF stars have been shining on the Gasometer of the former gas plant in Berlin-Schöneberg.

The EUREF-Campus Berlin site covers 5.5 hectares. Many heritage buildings were modernised, and energy-efficient, intelligent buildings were newly constructed. Today, they are home to 150 companies from the commercial sector as well as science and research. Experiences with autonomous shuttle busses and cleaning vehicles have already been made here. And a highly technologized energy hub generates environment-friendly heat, cooling and power.

The EUREF-Campus Berlin works on issues that effect the future, such as energy management, mobility and climate protection. It is a reference site for the Smart City Strategy of the State of Berlin.

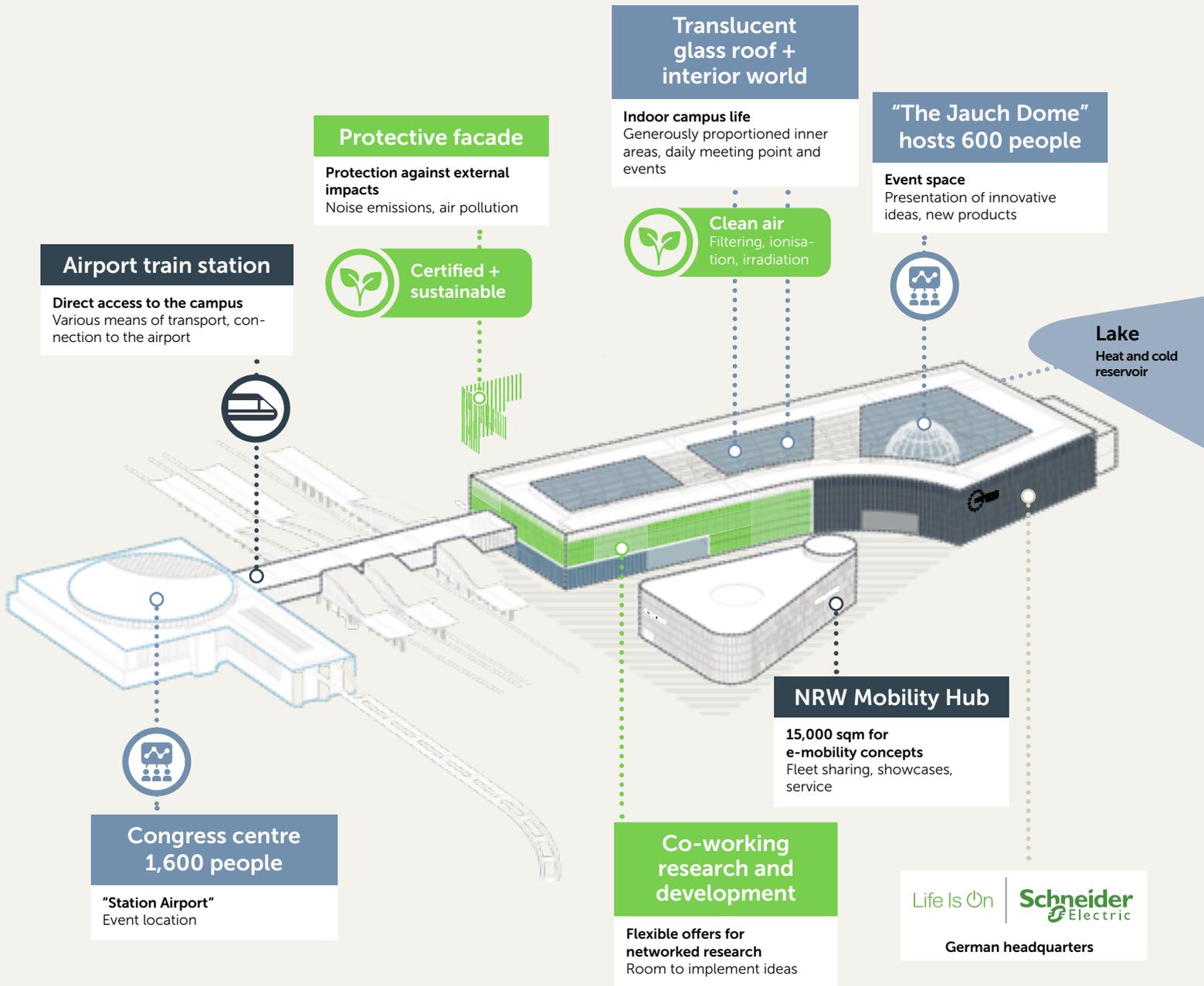
With the relocation of the Berlin gas supplier Gasag (which moved its headquarters to the EUREF-Campus in 2020, returning to their historical grounds), as well as the German Renewable Energy Federation (BEE) and part of the federally owned German Energy Agency (DENA), the campus has grown to 5,000 employees.

Since **2014**
meets CO2 targets
for 2045

5.5
hectare
urban district

150
companies
start-ups and research

5,000
employees
on campus



Space for innovation

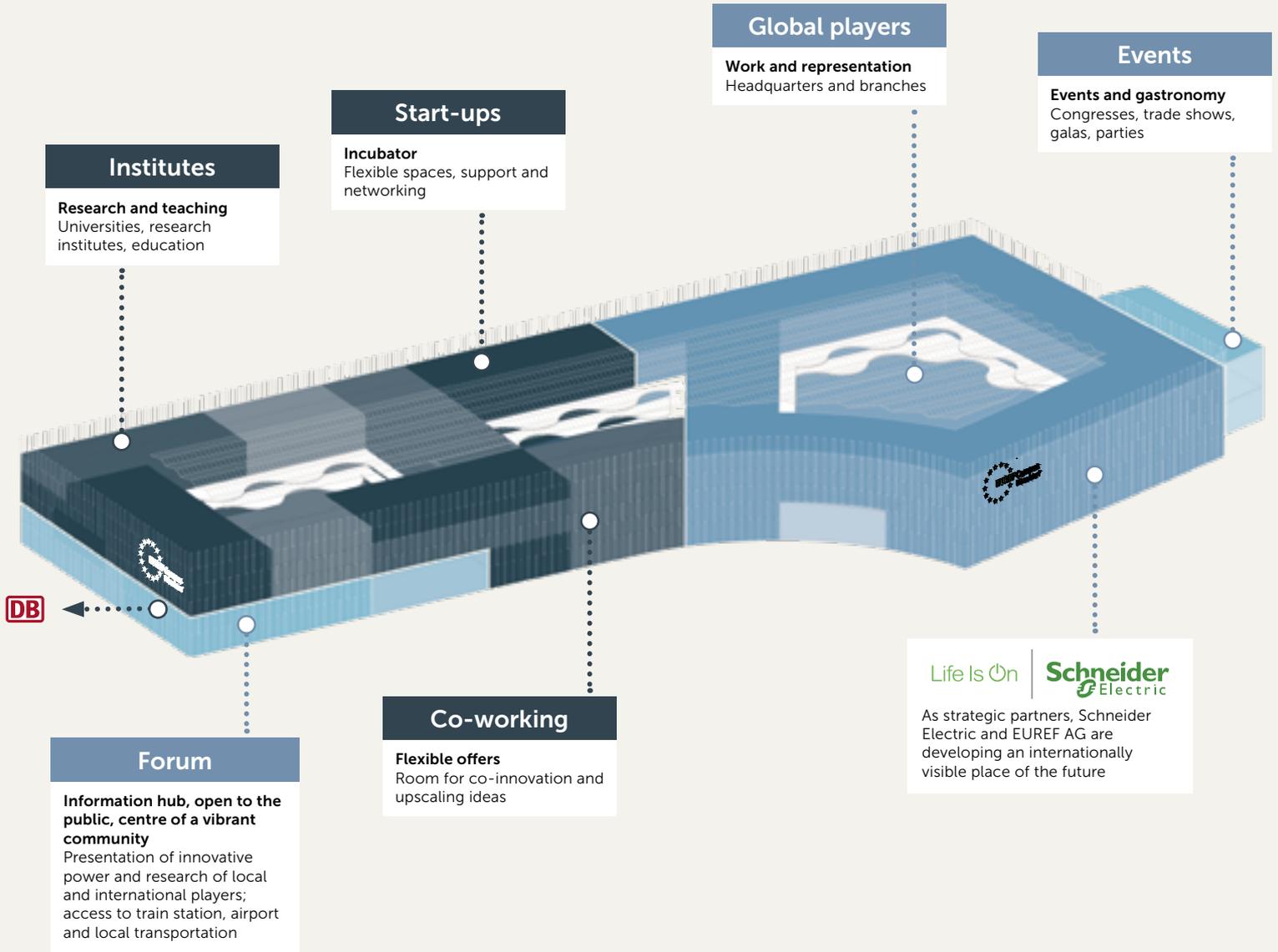
ARCHITECTURE AND MOBILITY OF THE FUTURE

The two buildings offer approx. 80,000 sqm of rental space. The proximity to the airport, railway and motorway requires a special kind of architecture that provides optimum emission protection. At the same time, the architectonic design promotes creativity and offers a high level of amenity value and workplace quality.

Three large, spacious patios under a translucent glass roof with trees and plants are planned for the main building. Plants help create a good climate, together with the roof construction and special ventilation technologies. The air for the building is ionised using a novel process that does not generate ozone – clean air for a pleasant working climate. By using UV-C irradiation, 99.9 per cent of all viruses in the air are filtered – this technique is already in use on the Berlin campus.

As a second unit, the NRW Mobility Hub will be a start-up platform and maker space for the mobility of the future: e-mobility, sharing models for e-cars, e-bikes, e-scooters and autonomous vehicles, can be developed and tested.

EUREF-Campus Düsseldorf provides room for ideas. In addition to our anchor tenant Schneider Electric, who has its German headquarters on campus, start-ups, as well as regional and international businesses in the fields of energy and mobility, and environmental and climate protection technologies will also find a home here.



Multi-purpose concept

SPACE FOR INNOVATION

In addition to Schneider Electric's German headquarters, the innovation campus will also include start-ups and regional and international companies.

Most importantly, it will also be an inspiring and enjoyable place to work, with its open spaces, food and dining options, artwork on the walls, pathways and squares. Furthermore, the campus will provide space for concentrated working, as well as exchanging and presenting ideas. The potential for cooperation opportunities will be enormous. All tenants of EUREF-Campus Düsseldorf will benefit from the thematic focus, the proximity to other companies, plus the opportunity to meet at one of the many occasions and events on campus.





“The Jauch Dome”

EVENT LOCATION FOR 600 GUESTS

The glass dome was designed for the 2006 Football World Cup in Berlin and its shape was inspired by the German parliament building the ‘Reichstag’. It was used as an event location inside the ‘Gasometer’ (former gas plant) on the EUREF-Campus in Berlin.

It became famous as the location of one of Germany’s most influential political talk shows, hosted by Günther Jauch. It has also been a stage for movie premieres, tv shows, political congresses, UN conferences and dinner events. Now, the glass dome will be reconstructed on the EUREF-Campus Düsseldorf and form the communicational heart of the campus.



GÜNTHER JAUCH was a late-night show broadcast from the heart of the capital. From 2011 to 2015, we went out live from the Gasometer at the EUREF-Campus in Berlin. That was the perfect match for us – an inspiring and innovative surrounding for the TV format.”



GÜNTHER JAUCH
TV presenter, journalist
and producer



© Stefan Gregorowius



Campus life

ENJOYING AN INDOOR GARDEN

EUREF-Campus Düsseldorf, with its areas of interest, represents a unique platform of the future. It will offer its tenants and guests from political, commercial and scientific arenas as well as the general public a lively space for discourse, exchanges of information and events.

On the ground floor, restaurants and bistros offer regional cuisine. For even larger events, the neighbouring former check-in hall of Düsseldorf Airport offers a convention and congress centre for up to 1,600 participants. Life on campus will essentially take place in the indoor garden with big and bright courtyards suffused with daylight, and generous portions of greenery, which will provide an inspiring and healthy environment.

According to a study conducted by Cardiff University, plants can boost employee



EUREF-Campus Düsseldorf offers spaces for large-scale events and conventions

productivity by up to 15 per cent. The greenery in the atria, plus the translucent glass roof and special ventilation technology, will result in clean and healthy air. Thus, a pleasant and productive working environment is ensured.

In the green hall, guests and employees can relax and re-energise, or also find inspiring places for a meeting with co-workers, for teamworking and creativity.



Regional products
and specialities are part
of the gastronomy concept

Gastronomy

REGIONAL, DELICIOUS, AND COMMUNICATIVE

EUREF-Campus Düsseldorf offers an extraordinary level of cuisine. There will be several restaurants, an organic bakery and a snack bar on campus – led by top chef Cornelia Poletto. Whether for breakfast, lunch or fine-dining – variety is guaranteed. The healthy, regional and sustainable catering concept is being developed together with Cornelia Poletto to offer the 3,500 employees and numerous guests a varied culinary selection. Moreover, a wide range of events can be hosted and catered for – from buffet style to grand dinner events.

For healthy nutrition and local supply, an organic supermarket will also be opening, as well as a coffee bar of a local roastery. Together with all the tenants, EUREF offers a 'Campus-Card' to help companies support their staff with a voucher system, thus offering premium cuisine at reasonable prices. The culinary experience will also be a treat for the eye, with a beautiful view over the lake.



The EUREF-Campus Düsseldorf gives us a glimpse of the future. A new space is being built in my old home in NRW, where innovation and sustainability are lived out. To combine both of these values also on a gastronomical level, is my aspiration. And I look forward to contributing to this important development with some of my ideas.”



CORNELIA POLETTO
Top chef, entrepreneur



Individual office design



Co-working spaces



Flexible and multifunctional

EUREF-CAMPUS THINK TANK

Intelligent, climate-friendly and highly efficient: EUREF-Campus Düsseldorf will meet the requirements for a sustainable workplace of the future – with individual office design and flexible options, such as co-working spaces.

The office rental spaces can vary in size from 300 to 20,000 sqm – big corporates as well as smaller companies and start-ups will find their perfect working environment. Flexible spaces will be available for them, and of course, the open spaces in the three atria. They can also book conference facilities, presentation areas and sections within restaurants.

From ideas to production: start-up spaces and testing facilities can be set up on campus. The NRW Mobility Hub, in particular, will offer options for 'hands-on' work in 'real-life laboratories'.



Flexible offices and event spaces provide an inspiring work environment



Schneider
Electric

Schneider Electric

ANCHOR TENANT ON EUREF-CAMPUS DÜSSELDORF

Schneider Electric is a global specialist in the energy sector, primarily in energy management and automation. With its German headquarters, they will be the anchor tenant on EUREF-Campus Düsseldorf.

Seven hundred and fifty employees will be working here initially, with more than 1,000 expected in the future. Together with other companies, Schneider Electric will demonstrate how a smart grid works in actual operation on campus.

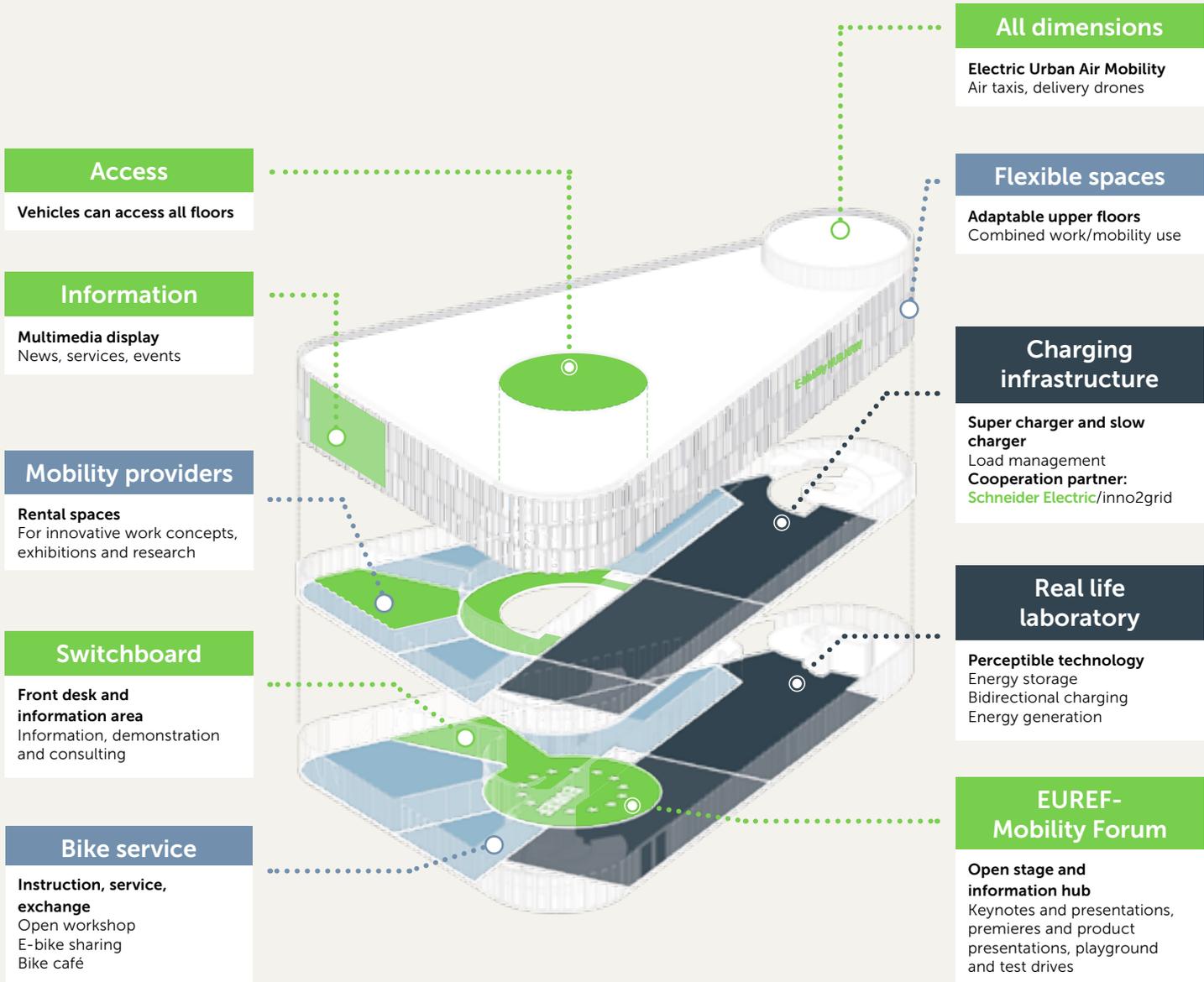


In my opinion, access to safe and sustainable energy is a basic human right. At the same time, we all know that the way we use energy today is not sustainable. EUREF-Campus proves that a solution to the energy paradox is possible today.”



JEAN-PASCAL TRICOIRE
Chairman and Chief Executive Officer
Schneider Electric





Mobility

LIGHTHOUSE OF E-MOBILITY

The NRW Mobility Hub is designed as a research campus for intelligent mobility concepts and a showcase for electric mobility. Other drive systems, e.g. hybrid and hydrogen, as well as inductive charging options are being further developed and put to use.

The NRW Mobility Hub is being developed together with regional and international companies and institutions working on Urban Air Mobility and Mobility-as-a-Service. Future concepts of mobility, such as the hyperloop train by NEVOMO, will be part of the innovative community. The hub can serve as a transit zone for commuters and airline passengers. E-bikes and small e-scooters will be provided using sharing models for getting to and from work or for the 'last mile'.

E-car batteries will serve an additional purpose – the charging stations will be operated bi-directionally in the future. The charged cars will help stabilise the entire power grid of the campus.



Germany's largest solar charging station is on EUREF-Campus Berlin

© Inno2grid Vipul Toprani



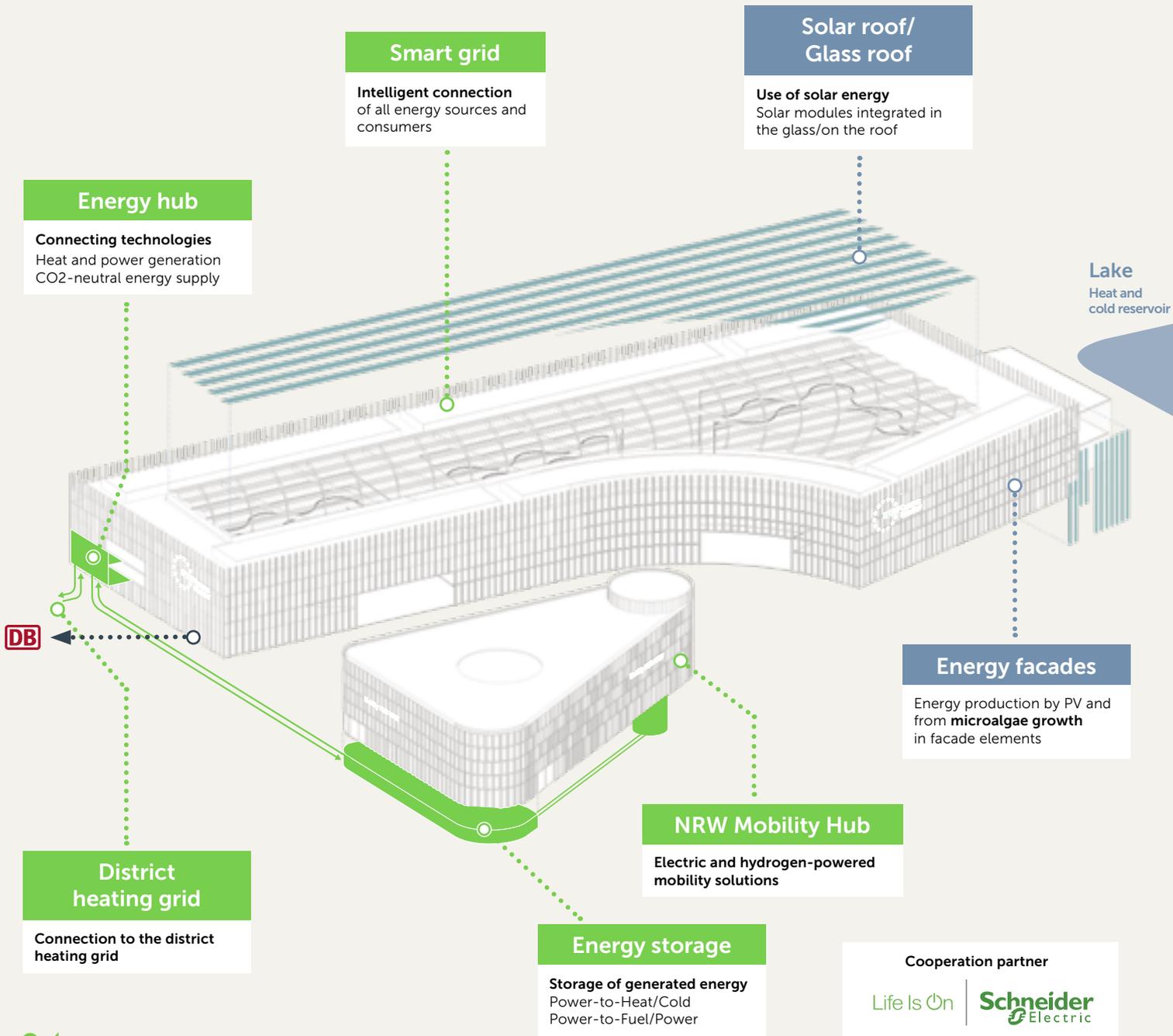
The objectives of the EUREF-Campus are a perfect match for NRW: Climate-friendly and resource-saving management, new mobility concepts and autonomous driving, the digitalization of products and processes, energy storage and efficient building control are issues to which the state government's economic policy is also committed."



Prof. Dr. Andreas Pinkwart
State Minister for Economic Affairs,
Innovation, Digitalization and Energy
of North Rhine-Westphalia



© MWIDE NRW/F. Wiedemeier



Intelligent energy concept

SMART CAMPUS GRID

The transformation of the energy sector is tangible, with power and heat generated in an environment-friendly way. The aim is a CO₂-neutral supply of the campus. Thanks to a highly technologized energy hub and the use of renewable energy, the CO₂ climate protection targets of the German Government for 2045 are achieved even before opening – and at the same price as conventionally generated energy.

This achievement is made possible, for instance, through the lake water utilisation concept and a solar facade. Bioreactors with algae growing inside are installed on the facades for energy production. Algae consume CO₂ and produce oxygen and heat. Renewable energies are stored using Power-to-Heat and Power-to-Cold.

EUREF-Campus Düsseldorf is smart in terms of energy: it will be part of a network of environmentally friendly energy generators and storage providers in the region.



Bioreactors on the facades, high-tech solutions for the energy hub





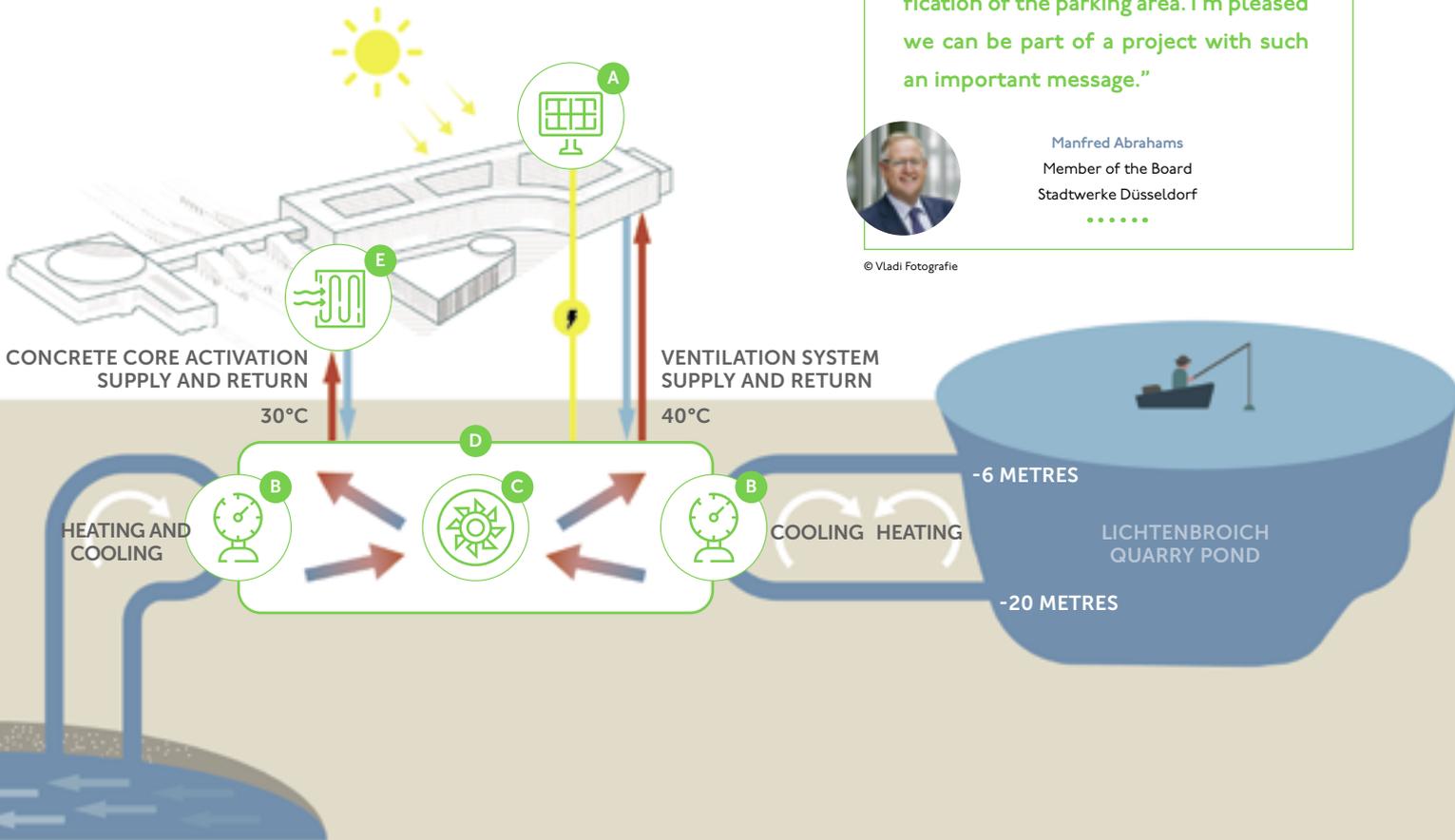
As a progressive company with a history dating back more than 150 years, Stadtwerke Düsseldorf (Düsseldorf's public utilities) is an advocate of innovation as well as tradition. The energy concept which the Stadtwerke Düsseldorf developed for and together with EUREF-Campus Düsseldorf is also innovative. Moreover, we are the expert partner for the planned electrification of the parking area. I'm pleased we can be part of a project with such an important message."



Manfred Abrahams
Member of the Board
Stadtwerke Düsseldorf



© Vladi Fotografie



Lake water utilisation concept

INTELLIGENT MANAGEMENT OF HEAT AND COLD

The combined use of regenerative energy sources is at the core of the innovative energy concept developed by EUREF-Campus Düsseldorf. The immediate proximity to the Lichtenbroich quarry pond and local groundwater supply enable lake water and groundwater usage.

It is also possible to integrate solar and wind energy into the concept. All of these natural energy sources are collected separately and, depending on the season and temperature, used directly or heated/cooled to the appropriate temperature with the help of the connected heat pump technology in the ENERGY HUB **D**. The power required for the HIGH-EFFICIENCY PUMPS **B** and the energy hub is generated by SOLAR PANELS **A** on the roof and the facade – intelligently controlled via a system developed by Schneider Electric, which forecasts weather and user requirements three days in advance.

SUPPLYING HEAT IN WINTER

In winter, the groundwater, which always has a constant temperature, is warmed using warmer water from the upper layers of the lake and heated to the required temperature

in the energy hub using a specially developed HEAT PUMP **C**. This heat is circulated in the building using an energy-storing underfloor heating system installed in the concrete core (CONCRETE CORE ACTIVATION) **E**. Almost all of the building's waste heat is also used for effective preheating of the fresh room air.

COOLING IN SUMMER

In summer, the building is cooled using concrete core activation by releasing excess heat into the groundwater and cooling it using water from the deep, cooler layers of the lake without machine assistance. In summer and winter, the intelligent system controller utilises stored power, as well as heat and cold in the building to avoid the groundwater from becoming too warm or the lake from freezing unnaturally.

COOPERATION PARTNER



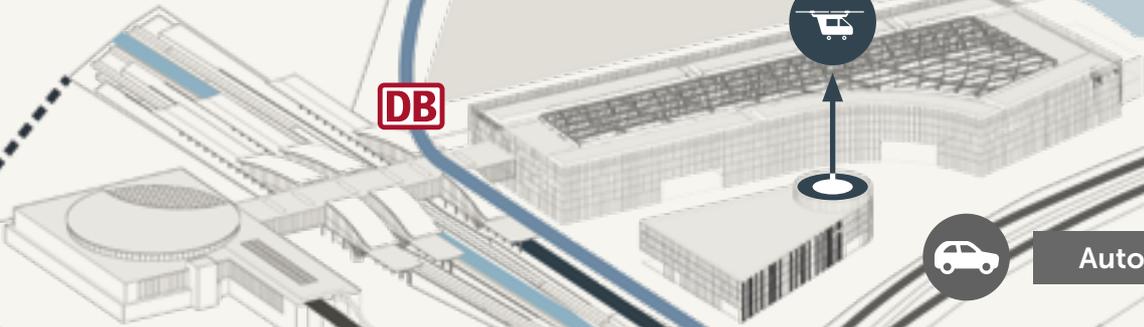


Airport

Forest

Quarry pond

Air taxi
in planning stage



Autobahn A44

SkyTrain



Under-
ground U81
in planning
stage



Suburban/Regional transport

ICE/Intercity transit



Express bike lane
in planning stage

Connected innovation

CONVENIENTLY LOCATED NEXT TO THE AIRPORT

EUREF-Campus Düsseldorf is perfectly located in terms of transit: right next to Düsseldorf International Airport, the Autobahn and the airport train station with connections to local, regional and international destinations. There is direct access from the campus to the train station, and to the airport terminal via the SkyTrain.

The intermodal transportation will be further enhanced in the years to come. For example, an extension of the regional underground line U81 is planned. Also, a new intercity express bike lane is planned to run next to the campus site. The EUREF-Campus also offers perfect surroundings for developing vertical mobility – a landing pad for air taxis is planned in the future.



Mobility of the future:
Urban Air Mobility will be tested
and put into use in Düsseldorf

5
minutes
to the
airport terminal

5
minutes
to Düsseldorf
main station by train

25
minutes
to the city
by bike

10
minutes
to the city
by car



EUREF-Community

TENANTS AND PARTNERS – ACHIEVING MORE TOGETHER

How do we manage the transformation of the energy and mobility sectors? How can we make sustainable use of the digital and technological opportunities? In response to these questions, we want to create a strong network, which works across company and industry boundaries and integrates external partners nationally and internationally. Large and small enterprises, as well as international and regional companies from sectors such as energy, mobility, digitalization and services are given the opportunity to intensively research and work together here. Thus, we will create a productive, efficient network based on communication, exchanging experiences and cooperation.

EUREF-Campus Düsseldorf unifies the clever minds and ideas of small and mid-sized companies, start-ups and scientific institutions. They are actively supported individually by campus and community management, as well as digitally via the campus app. The spectrum of the multilingual service team extends from tours for visitors all the way to support for innovation workshops and expert congresses. This one-of-a-kind symbiosis of all those involved generates added value and synergies in a real cluster.

And we are building our community now, even though the campus won't be finished until 2023. Together, we are working towards shaping the future through sustainable, smart, climate-neutral and generationally equitable initiatives.

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Subject to change without notice

