Real Estate Research

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The Sustainable Next Generation Office

Definition & Drivers for change

IN A NUTSHELL

- Ongoing polarisation in the office market and a push towards sustainability increases the risk of economic obsolescence of old and lower-quality office assets.
- —Resilient and future-proof assets not only have fewer risks but also create additional value and have an extended lifecycle. The resilience of a Sustainable Next Generation Office is based on the key metrics of micro-location, ESG credentials (particularly net zero alignment), and asset specifications that should improve the customer experience.
- Main drivers for increasing occupier and investor demand for such products are tightening regulation and increasing transition
 risks, corporate sustainability strategies and changing occupier requirements as well as cost benefits.

Disruptive megatrends are shaping the world of tomorrow and thus challenging the global office sector. Climate change and the much-needed decarbonisation of the economy are leading to increasing net-zero commitments. The spread of hybrid and flexible working – which has soared since the pandemic – is changing occupier demand. Millions of square meters of office stock are at risk of becoming obsolete, not only from EU energy regulations, building specifications and reporting but also from changing net-zero goals for tenants. For example, almost three-quarters of the UK office market falls below the required minimum energy efficiency standards which are implemented by 2030.¹

Characteristics of a Sustainable Next-Generation Office Building

Resilient by satisfying the customer experience

Avoiding obsolescence in the office sector will require a shift to Sustainable Next Generation Office (SNGO) building. There are many buzzwords around the term like "smart offices", "desk sharing" or "biophilic design", but so far there has been no universally agreed upon definition. In our view, the most important and determining factor of an SNGO is resilience, and to assess this we have created a rating system based on four broad criteria:

- -Micro-location
- -ESG and net zero alignment
- Alignment with the occupier's branding
- -Asset specifications

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¹ Savills, European Office Obsolescence December 2022

The scoring measures both the SNGO potential and viability, which is important when deciding whether an asset can be refurbished. Moreover, the scoring can be used to identify the risk of price corrections in the current portfolio and the acquisition due diligence by checking whether an asset can be considered "future-proof".

Characteristics of a Next-Generation Office Building



Source: DWS, February 2023

Micro location

Location remains a key feature for any office. An attractive micro-location is increasingly important in the war for talent and should support a sustainable property value in the long term. To achieve a high NGO score, the property should be in a sought-after micro-location with a mix of live, work and play to attract employees and bring people back to the office. A mix of residential, and green or open water spaces rounded up by restaurants and retail in the vicinity, supporting employee wellness, helps an asset to achieve a good location rating. Connectivity to major public transport lines should also be within a short walking distance, while locations with fast-growing business clusters, provide opportunities for collaboration and client engagement.

ESG and Net-Zero alignment

Energy efficiency is a key factor of Next Generation Office buildings as it minimises the risk of obsolescence, driven by tightening EU regulations of energy efficiency and greenhouse gas emissions. Further transition risks like rising carbon prices and increasing reporting requirements can be forestalled, while lower operating costs are gaining importance given the recent energy crisis and associated cost pressures.

Branding, tenant health and productivity

Image and brand effects are also increasingly important as reputational risks and employee well-being continue to rise on the corporate agenda, particularly as many announce net-zero decarbonisation commitments. Thus, the property should be sustainable and achieve a high energy standard regarding waste, electricity, water and heat consumption. Wellness standards and comfort, including effective ergonomics and biophilic design, improve the customer experience and engage employees. Corporate brand and image should be

considered at the same time. Biodiversity-integrated design and green areas like rooftops can provide additional urban habitats for flora and fauna (such as beehives). This can play an important role in climate action, improving air quality, and improving tenant wellness.

Asset specification

Working closely with our asset management specialists, we have produced a detailed list of asset specifications for SNGO. We have grouped these into three broad categories: *floor plate functionality, building structure and smart technologies*, shown in the chart below.

We use detailed specifications to rank the floor plate functionality to reach convertibility and flexibility of the building, reducing the risk of vacancy. A key metric is the space efficiency as a percentage of net lettable area to gross floor area (NFsqm/ GFsqm) targeting ≥ 0,75 (=very good) as occupiers demand a high utilisation rate. Space efficiency is an important indicator for the extension of the service life and the reduction of life-cycle costs.

In addition, indicators regarding building structure measure flexibility in the context of changing occupier needs. The number of vertical/horizontal access routes increases the variability of fit-outs, while the year of construction typically indicates building efficiency and variable uses.

Smart Technology and digitalisation are increasingly important to implement technical solutions in the new world of work to reach effective collaborative working strategies and to improve organisation and job quality. The occupier should be able to operate and manage the building in an easy way, while also ensuring the adaptation to changing conditions or technical innovation with as little effort as possible. Technology should include full sensors throughout the building to allow an efficient operation of the building, making sure that the building systems are operated in line with the actual occupancy.

SNGO buildings should also include full digital connectivity, including a tenant app that enables a holistic experience from touchless access to desk booking and communication with the front desk or property management. The certification level should include WiredScore, Smart Score or WELL and there is also a need for cybersecurity to ensure employee data protection and privacy policy.

Overview Scoring Asset Specifications

Building Structure

Smart
Technologies

TOTAL SCORE
ASSET SPECS

- Space efficiency NFm²/ GFm²
- Number of possible office concepts
- Number of possible rental units
- Number of floors to be merged
- Possible number of rental units Max
- Possible number of rental units Min
- Variability of extension
- Office building type
- Year of construction
- Existing building structures protected
- Investment backlog in years
- Stand space depth in meter
- Ceiling height raw concrete in meter
- Number of access points per story
- Number of terraces/green spaces
- Number of technical shafts
- Size of the shafts (cm x cm)
- WLAN in common areas
- Wired Score, Smart Score, WELL
- Double bottom / raised floor
- Air exchange rates per hour
- Ventilation available

Total score to measure the resilience and flexibility of the building

Source: DWS, February 2023

Demand Driver

Tightening regulation, ESG strategies, the new World of Work and cost benefits

Demand Driver of Sustainable Next Generation Office: Quality than Quantity

After years of talking about polarisation in the office market, the divergence is becoming increasingly visible in the underlying data. The divergence between grade A and secondary assets in Europe is widening in terms of capital values, rental growth and vacancy rates. We have identified the following main drivers which are shaping future demand for NGOs, strengthening the mega trend for less but better-quality office space in the long term.

Regulation **ESG** and Net Zero National vs. EU level **Net-zero commitments** Carbon pricing, building renovation Asset Obsolecense Reporting requirements, Employer wellbeing/health **Energy Performance Certificate SNGO Occupier Needs Cost Benefits** Hybrid work Rental & price premium Digitalisation Lower operatinge expenses War for talents Less risks and higher value

Source: DWS, February 2023

ESG and net zero demand from corporate occupiers

Corporate sustainability strategies are driving demand for future-proof office buildings. Sustainable buildings are a key factor to meet net-zero commitments as lowering building emissions is one of a few possibilities to reduce net greenhouse gas emissions, especially by corporates from the service sector without large production facilities and supply chains. Survey evidence² and a steadily increasing number of net-zero commitments show that corporates intensified their focus on ESG priorities and strategies. Moreover, the social aspect of increasing employer well-being and health through wellness amenities is becoming increasingly important.

Regulation

While many companies established sustainability targets to meet self-imposed standards in the first place, external pressure from regulation is rising. This in turn is making carbon reduction strategies mandatory. Among European countries, there are several different laws and proposals like EPC (Energy Performance Certificate) requirements and renewable energy laws. Different conversion of the European requirements into national law and thus also a non-uniform classification between the European member states led to confusion

² CBRE Global ESG Survey 2022

within the real estate industry. With the European Green Deal, the EU increased its climate ambition to reduce greenhouse gas emissions by at least 55% by 2030 compared to 1990 and to become climate-neutral by 2050. To achieve the 55% reduction target, the EU should reduce buildings' greenhouse gas emissions by 60%, the final energy consumption by 14% and energy consumption for heating and cooling by 18%.³ The EU released several proposals and directives for the building sector to align carbon emissions with the EU climate and energy

Perhaps most important are the Revised Energy Efficiency Directive (EED) aims to make buildings more energy efficient and the Revised Energy Performance of Buildings Directive (EPBD) ensures the EU's building stock reaches net-zero emissions by 2050. While the finalisation of the EPBD is still in progress as of the writing of this report, the European Parliament and European Council have both agreed that Minimum Energy Performance Standards should be created, requiring most buildings to meet certain energy efficiency standards.

Occupier needs

Changing occupier requirements are another important demand driver. The rise of hybrid work and the global shortage of skilled labour resulted in a "war for talent". Office location and fit-out play an important role in attracting new employees, but talent retention by providing an appealing work environment.

Covid-19 already led to changes in occupancy rates and office reconfiguration. After government-imposed restrictions were lifted, occupancy rates started to recover, but remain below pre-covid levels. Research indicates that productivity increases when working from home for 1-2 days a week, but strongly decreases thereafter, making the case for hybrid working models with different layouts, including more collaborative spaces and meeting rooms.⁴

Overall, the new world of work, in addition to stiff competition to attract talent has led to increasing demand for high-quality office stock while total demand for office space is declining. This polarisation is leading to a flight to high-quality office space in well-connected areas, and rising vacancies in peripheral locations.

Cost benefits

Finally, there are financial benefits from energy efficiency and certified buildings for both tenants and investors. Sustainable buildings have lower operational costs which are increasingly important given the surge in energy costs and rising taxes on carbon emissions. From an investor perspective, green buildings deliver additional returns through higher rental income, thus supporting cash flows and property values. Moreover, energy efficiency and certified buildings tend to have lower vacancy risks.⁵

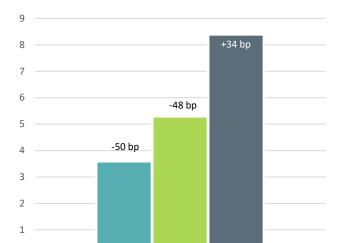
³ EU, A Renovation Wave for Europe, 2020

⁴ Behrens, Kichko & Thisse; Working From Home: Too Much of a Good Thing? Cesifo working paper, January 2021

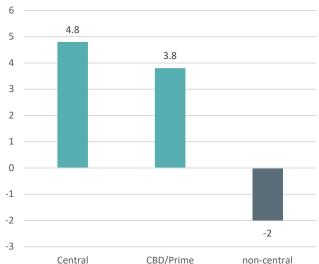
⁵ Leskinen, Vimpari, Junnila, 2020.

Polarisation in the European Office Market Q3 2022

Average vacancy rate by area (Q3'22-Q3'21)



Average rental growth by area in % (Q3'22-Q3'21)



Source: JLL. EMEA Office Market October 2022.

CBD

Outlook

Polarisation is likely to continue and more refurbishments are needed to meet targets

Central
 Non-central

Going forward, we expect the diverging trend in the office market to strengthen, with green premiums widening for best-in-class offices while aged assets in peripheral locations could see large falls in capital values. A trend that is already becoming visible is a shift in tenant demand from Grade B towards Grade A stock. While almost 60% of office take-up between 2010-2019 was attributable to Grade B office space, this ratio changed during the pandemic. Between 2020-H1/2022 take-up of Grade A stock amounted to almost 66%, while inferior stock lost ground. This trend is confirmed by findings from brokers. While vacancy declined in central locations, it went up in non-central submarkets, showing weaker rent growth at the same time. A more detailed view of differences in markets and cities as well as return considerations will be part of other editions of our office report series to be released later this year. In addition, the impact of buildings on Europe's net zero ambitions is also considered in the report "A Framework for European Transformation".

Given the changing occupier requirements and limited construction activity, best-in-class office properties are forecasted to see strong rental growth whereas peripheral locations will face increasing vacancy and lower rents. It is very important to have a detailed understanding of what makes an SNGO as the polarisation trend increases the risk of economic obsolescence. With many offices in need of refurbishment to meet carbon emission and energy efficiency targets, our scoring methodology helps to guide investment decisions and successful refurbishment strategies. We strongly believe that assets that meet the criteria of micro-location, ESG and asset specifications listed in our model, provide occupiers with a best-in-class experience.

⁶ Greenstreet, 2022

DWS, December 2022: https://www.dws.com/insights/global-research-institute/a-framework-for-european-transformation

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