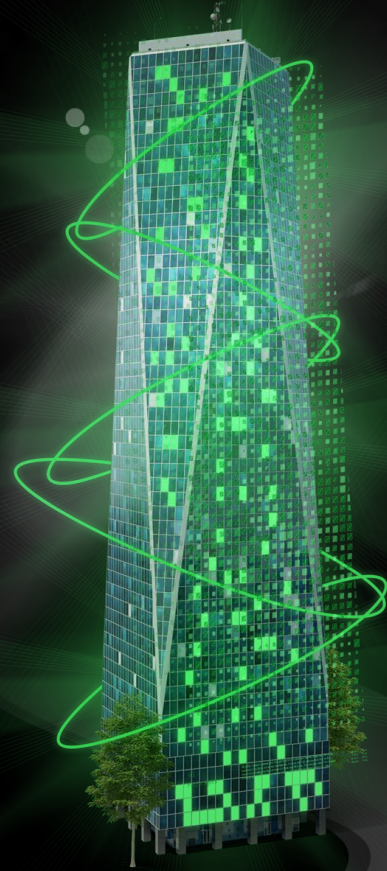
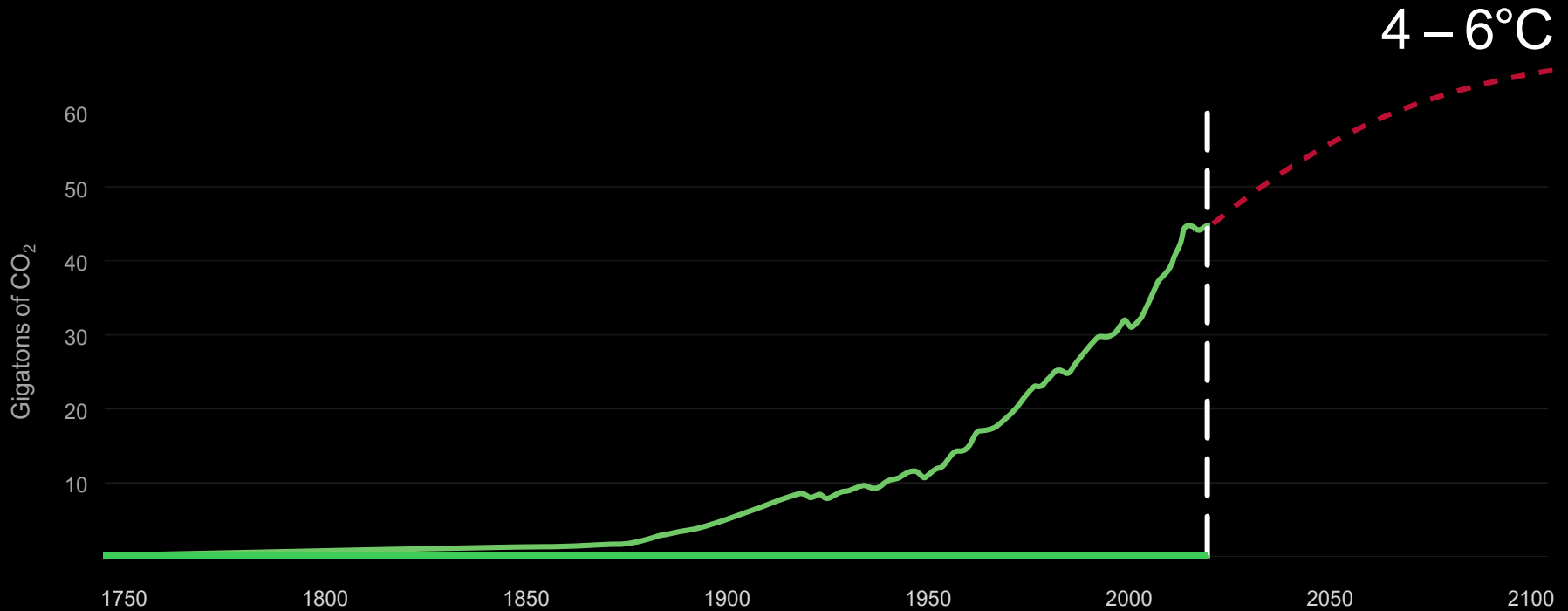


The Path to Net Zero Buildings

A Digital Technology-First Approach

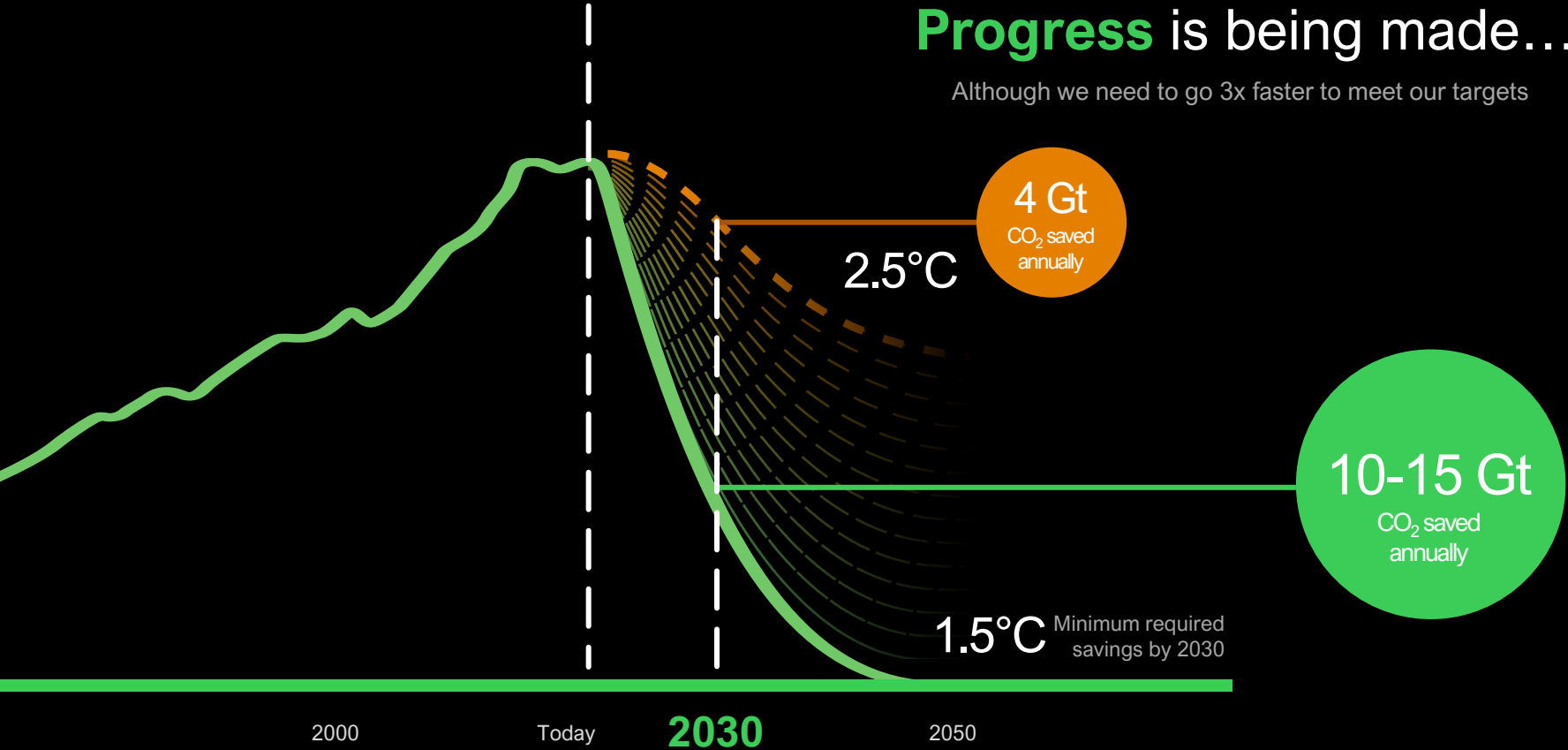


To tackle the climate crisis, we must **decarbonize**



Progress is being made...

Although we need to go 3x faster to meet our targets



We are also facing increasing **energy volatility**

Forcing companies and governments to re-think energy management with more urgency



European gas reached a multiple of almost 25 between Sept '20 and Sept '22



Meaning we are at a **critical juncture**

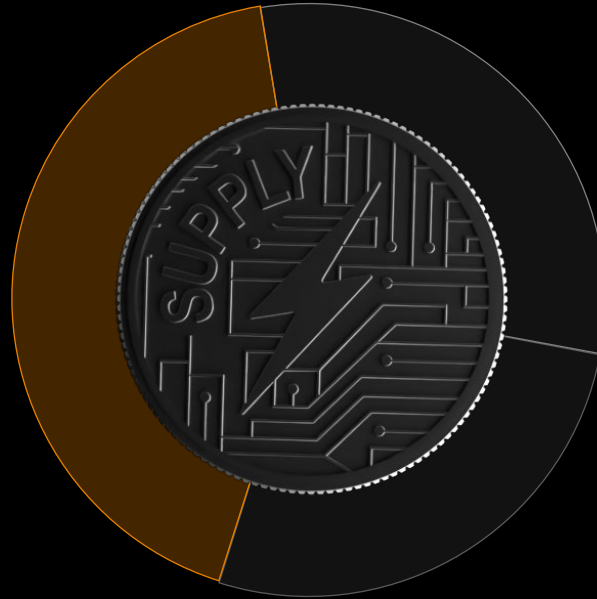
Long term **climate** targets vs
short term **energy** priorities

Decarbonizing supply is just one side of the energy coin...



Offsite renewables purchasing
PPAs

Onsite renewables generation
Solar, microgrid, storage





We need to look at both sides... and tackle **energy demand**



Reduce

for efficiency and
circularity

Design & Build for Low Carbon

3D-6D BIM design to reduce embodied carbon

Measure, Monitor & Save

Connected systems and software for
real-time data, insights and automation

Circularity for sustainability

Choose green by design, with extended life,
efficient usage & clean disposal options

Electricity 4.0

is our **unique** Energy Management **vision** to help our customers achieve their energy and sustainability goals **from strategy to execution**, globally and locally



Digital

For Efficiency

Electricity

4.0

Electric

For
Decarbonization

Digital + **Electric** = **Sustainable**

For Efficiency

For
Decarbonization

Green and Smart Energy



IMPACT

Where are the Belgian companies now?

The turbulent journey towards net-zero

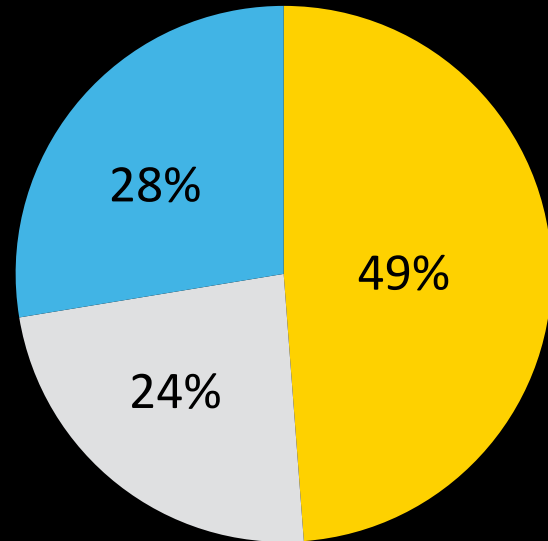
Ipsos report: Sustainability in Belgium

Life Is On

Schneider
Electric

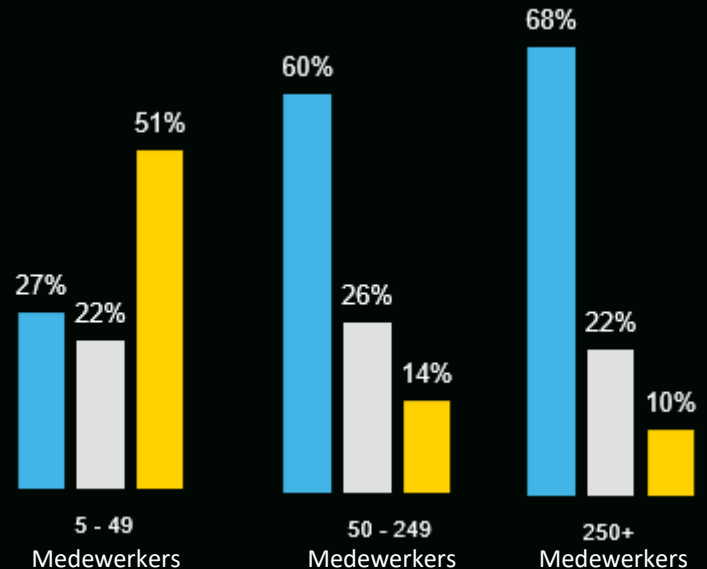
Heeft uw bedrijf meetbare duurzaamheidsdoelen gesteld?

- Ja, deze zijn momenteel aanwezig
- Nee, maar ze worden momenteel opgesteld
- Nee



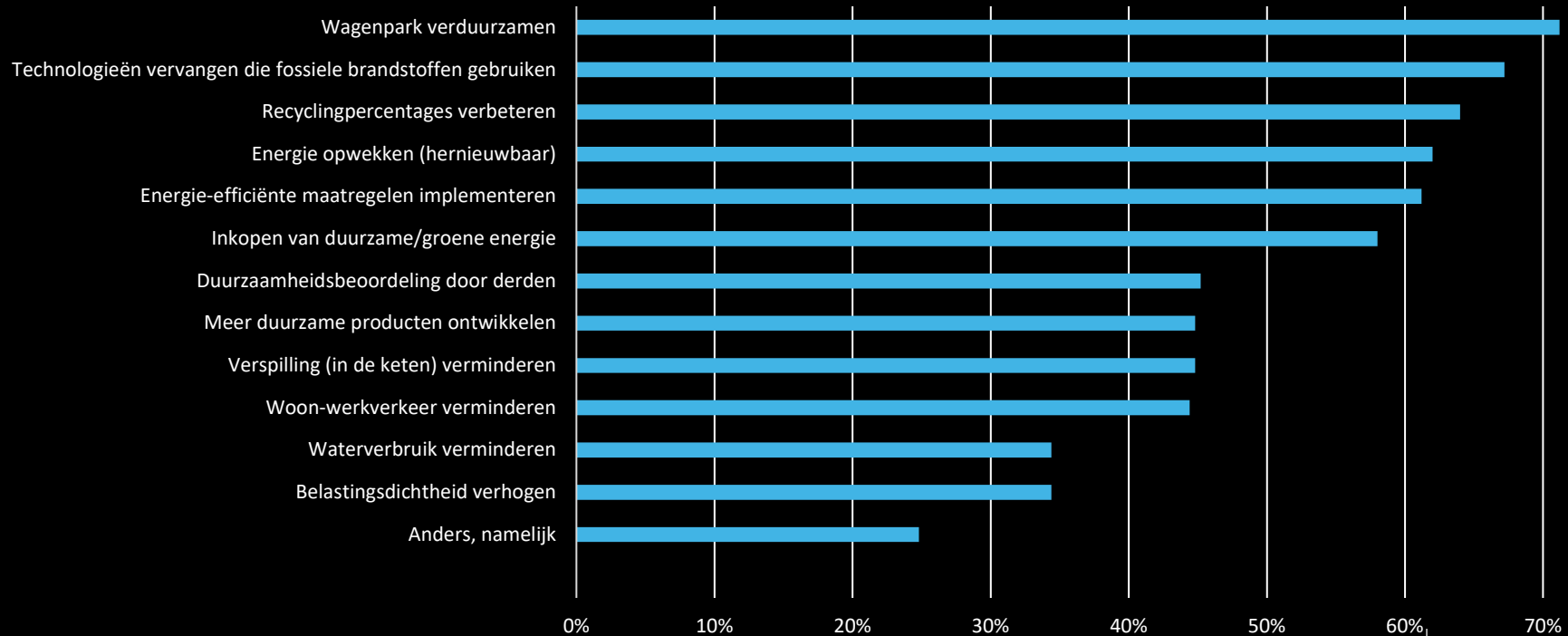
Heeft uw bedrijf meetbare duurzaamheidsdoelen gesteld?

- Ja, deze zijn momenteel aanwezig
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- Nee



**75% of the companies believe
electrification and digitization are key
to reduce energy consumption and carbon
emissions.**

Welke duurzaamheidsinitiatieven staan de komende jaren op de planning?



Net-zero buildings:

We need to
accelerate action



Why act now to address **building decarbonization**?



Climate



Buildings account for

37%

of **global CO₂**
emissions (13.3 Gt)

By 2030

10-15

 Gt CO₂/yr

savings required to meet
the 1.5C° climate trajectory¹

Financial



90%

of existing buildings will
become a **financial risk**
if they fail to **decarbonize**

Up to

30%

asset value discount
for stranded assets

Regulatory



50,000

companies will need to
**disclose energy and
carbon** under CSRD

~90

countries have a net-zero
target, covering **89% of
global emissions**²

Tackling **building decarbonization**

~ **30%**

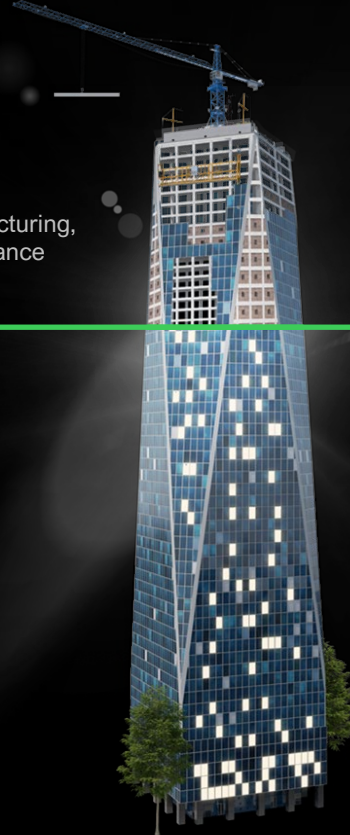
Design & Build

Embodied carbon emissions

relate to building materials, manufacturing, transport, installation, use, maintenance and replacement / disposal.

We need to focus on reducing **operational carbon emissions...**

...without increasing **embodied carbon emissions.**



Carbon Emissions in Buildings

~ **70%**

Operate and Maintain

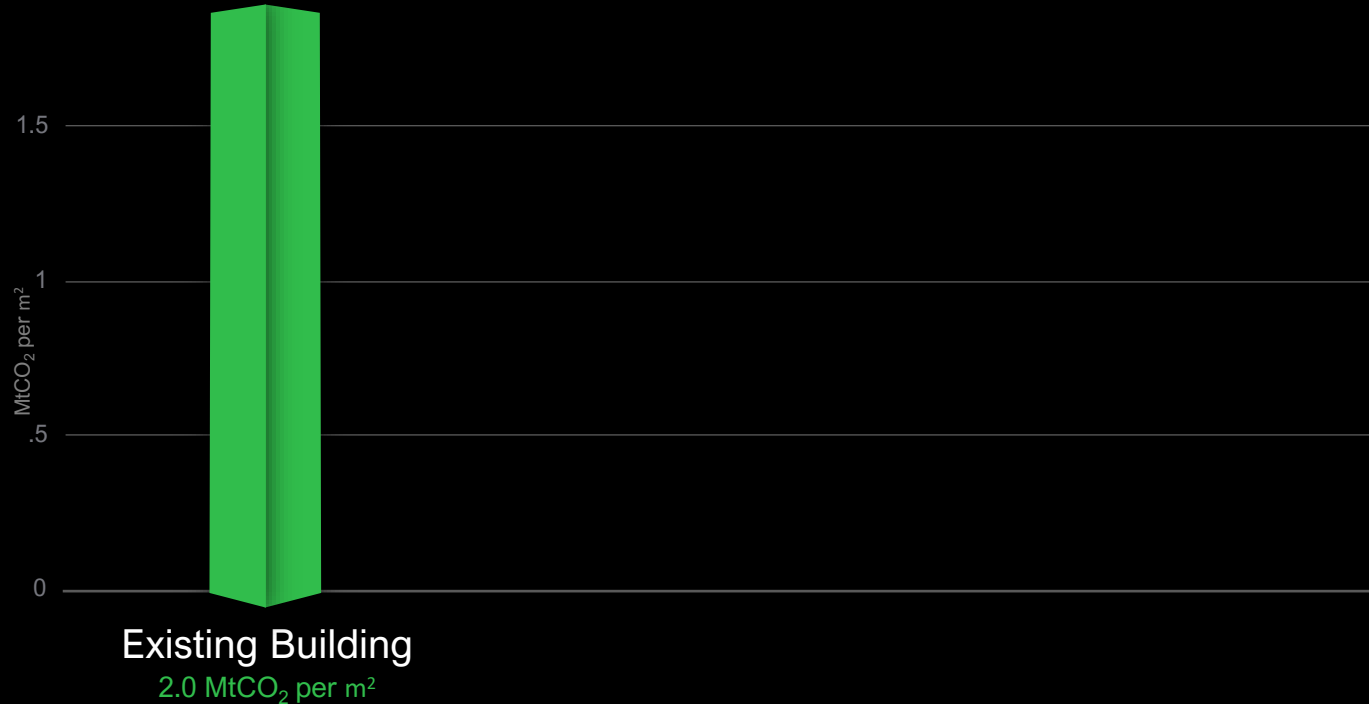
Operational carbon emissions

relate to the energy consumed during the use phase of the building

To accelerate climate action, the industry needs to focus on **retrofitting existing buildings**

50%

of buildings that will exist in **2050** already exist today





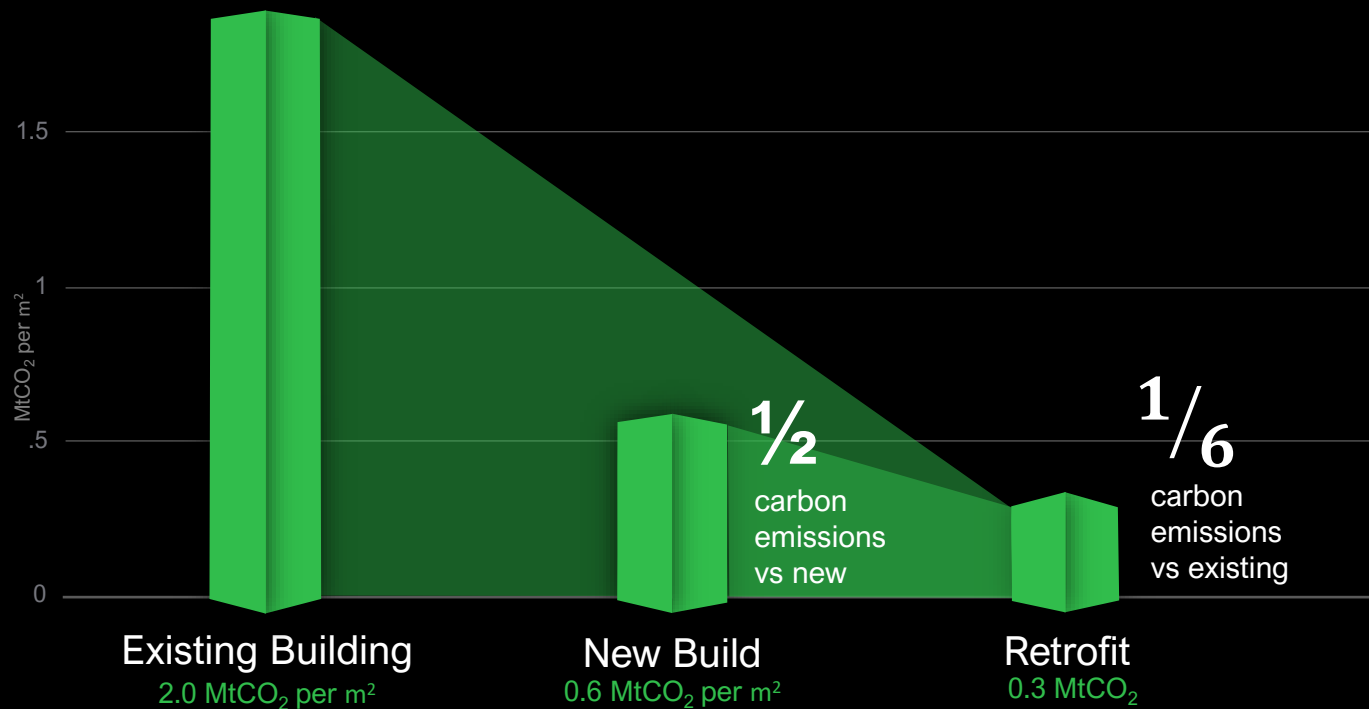
*At standard temperature and pressure,
one metric ton of carbon dioxide (CO₂)
would fill a sphere about 10 meters in
diameter.*



To accelerate climate action, the industry needs to focus on **retrofitting existing buildings**

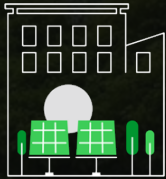
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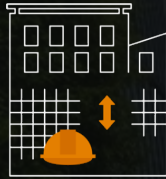
Buildings of the future start with **sustainability**

Building renovations not only address **decarbonization**,
but provide **significant co-benefits**:



Sustainable

On the path to net-zero,
digital and electric for
decarbonization



Resilient

Stay competitive
with minimal business
disruptions



Hyper-efficient

Flexible energy assets
seamlessly controlled by
end-to-end digital platform

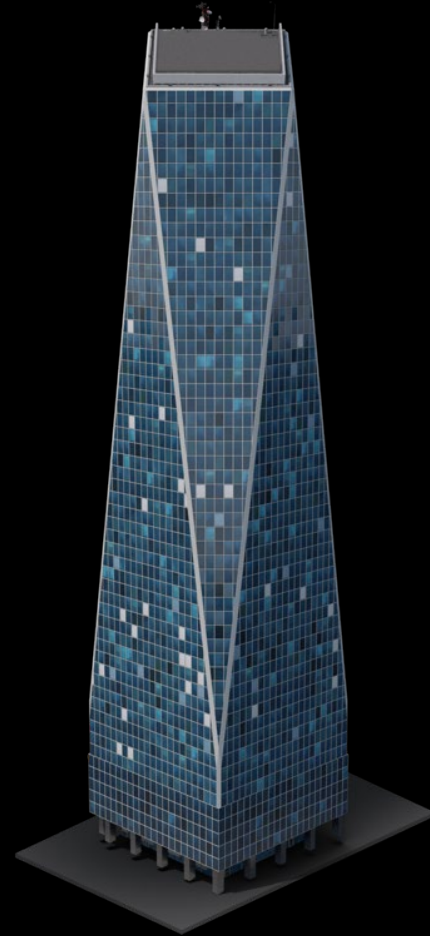


People-centric

Designed to delight
people and optimize
experience

Defining your

**Building
Decarbonization
Journey**



A technology first approach provides the best ROI with the least impact to building operations

Light Interventions for compliance and efficiency

- Minimal disruption
- Low embodied carbon impact
- High ROI, low upfront investment
- Limited asset value impact
- Up to 45% energy and operational carbon reduction*

Medium Retrofits to compete in the market

- Some disruption
- Some embodied carbon impact
- Medium ROI and upfront investment
- Some asset value impact
- Up to 85% energy and operational carbon reduction*

Deep Renovations to lead the market

- Significant disruption
- High embodied carbon impact
- Medium-low ROI, high upfront investment
- High asset value impact
- 85+% energy and operational carbon reduction

** Purchase offsite renewables across a portfolio through PPAs to compensate for buildings where onsite generation is not feasible or sufficient to cover electric load

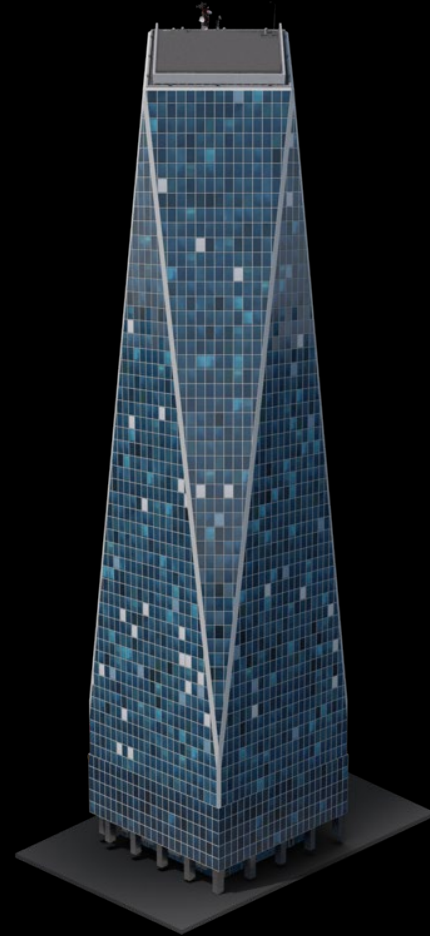
* Carbon reduction before EACs/offsets

“Retrofit strategies should consider lifecycle carbon impact, ROI, and ease of implementation.”

wsp
Brookfield



Net-zero Buildings of the Future:
Where do you start?



Top priorities for **Net-Zero Buildings**

Strategize

- 1 **Create** decarbonization roadmap

Digitize

- 2 **Track** embodied carbon
- 3 **Measure** and monitor energy and carbon

Decarbonize

- 4 **Reduce** energy and carbon through automation
- 5 **Purchase** offsite renewables
- 6 **Electrify** transportation
- 7 **Upgrade** building systems and electrical infrastructure
- 8 **Install** onsite renewables
- 9 **Limit** embodied carbon
- 10 **Offset** residual carbon emissions



Retrofit strategies should address all 10 priorities

Light

Deploy metering, monitoring and active building management for efficiency

Cost 20-35 €/m2
ROI 1 – 3 years

- 3 Measure and monitor energy and carbon
- 4 Reduce energy and carbon through automation

Medium

Electrify transport and maximize use of renewables

Cost 140 – 175 €/m2
ROI 8 – 10 years

- 5 Purchase offsite renewables (PPAs and EACs)
- 6 Electrify transportation
- 7 Upgrade building systems and electrical infrastructure
- 8 Install onsite renewables and microgrids
- 9 Limit embodied carbon

Deep

Retrofit the building envelope and other systems to achieve net-zero with limited reliance on offsets

Cost 500 – 1.300 €/m2
ROI 25+ years

- Envelope retrofit, electrify heating, and other interventions (out of SE scope)
- 10 **Offset** residual emissions

Transversal levers across Light, Medium and Deep:

1 Create decarbonization roadmap

2 Track embodied carbon

- Strategize
- Digitize
- Decarbonize

Top priorities for **Net-Zero Buildings**

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1

Create decarbonization roadmap

at a single site or across your portfolio

Determine carbon emission baseline

- GHG inventory and baseline data gap assessment

Assess digital technology to fill gaps and inform roadmap

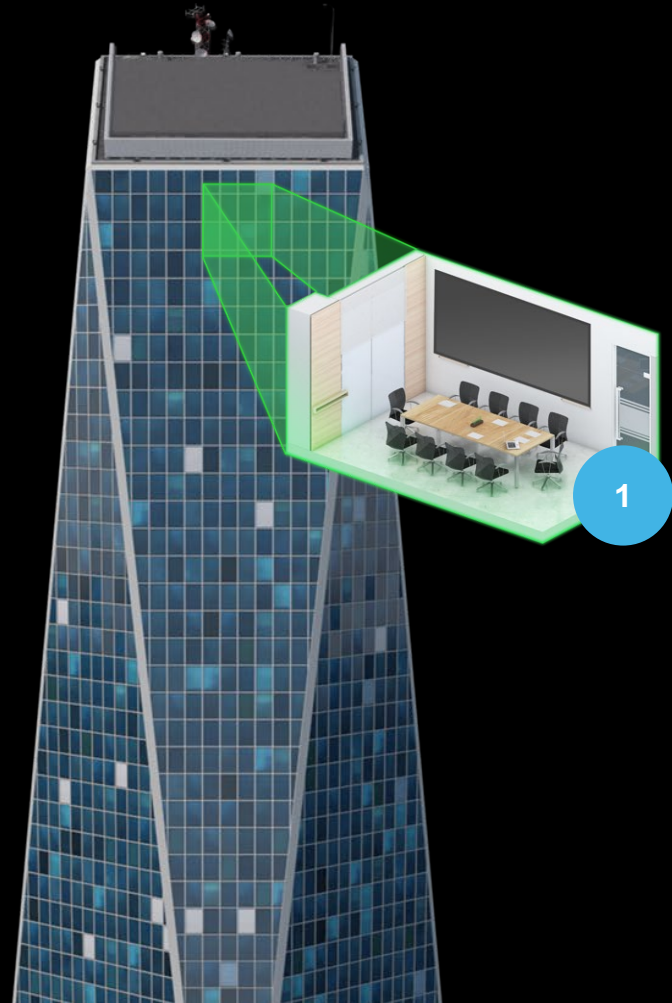
- Digital energy sensor audit
- Metering gap analysis
- Site connectivity plan

Assess technical and economic feasibility to prioritize actions

- Efficiency, electrification, renewables assessments

Model building retrofit scenarios to develop roadmap and timeline

- Site decarbonization assessments (including whole building lifecycle carbon assessment)



Top priorities for **Net-Zero Buildings**

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3

Measure and monitor energy and carbon

Centralize energy supply and utility data

- Analyze & report on energy and carbon

Gain visibility of major energy usage

- Understand equipment usage patterns & anomalies

Implement cloud-based analytics

- Equipment-level energy & carbon savings insights



Top priorities for **Net-Zero Buildings**

Strategize

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4

Reduce energy and carbon through automation

Utilize modern building & power management systems

- Control equipment and systems efficiently

Access space utilization data

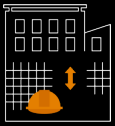
- Achieve operational savings through occupancy-based lighting & HVAC system control

Optimize equipment performance through predictive maintenance

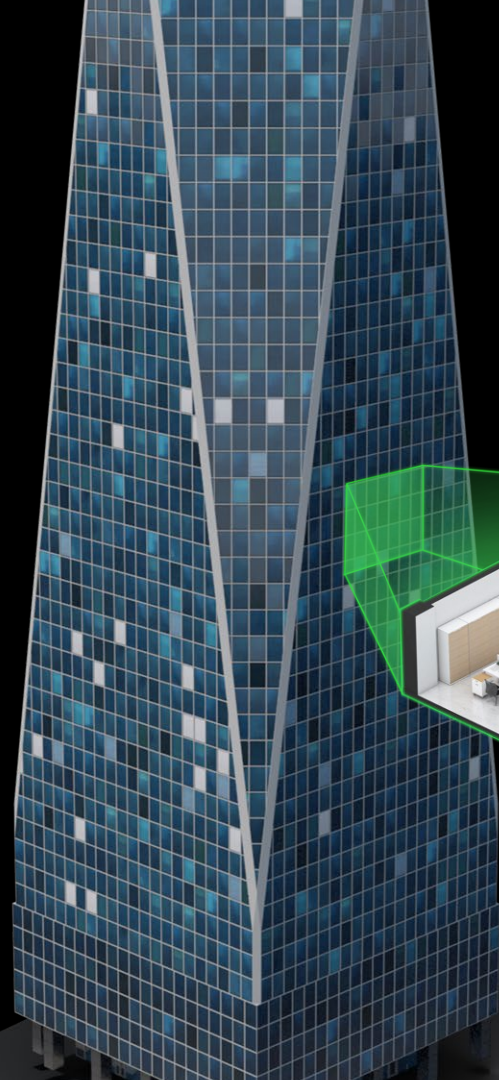
- Prevent performance degradation

Leverage AI for real-time optimization

- Reduce HVAC energy and scope 1 and 2 carbon emissions



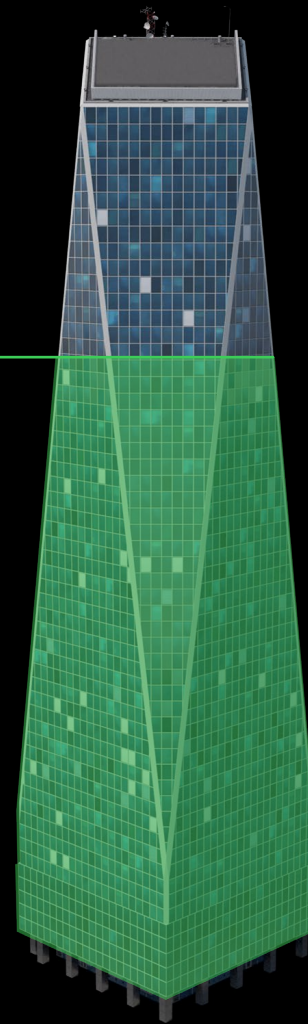
4



Up to

77%

of **CO₂ reductions** can be attributed directly to specific **Schneider Electric** solutions.



5.3%

Measure and **monitor** energy and carbon



PME



PowerLogic



Smart Panel

7.5%

Upgrade building systems and **infrastructure**



AccuSine

10.2%

Install onsite **renewables** and **microgrids**



Microgrid Flex

21.4%

Purchase offsite **renewables** and **offsets**

CleanTech Advisory™

77%

39.6%

Reduce energy and carbon with **automation**



EBO



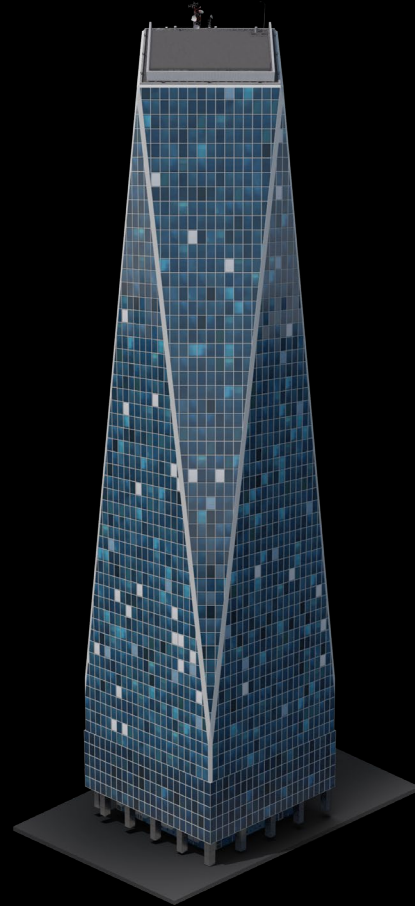
EcoCare



Connected rooms

Net-zero buildings:

**The right partner
for your journey**



Committed to sustainability for **over 20 years**

in our own ecosystem

2025 Carbon neutral
in our operations¹

2030 Net-Zero ready
in our operations

2040 Carbon neutral
entire value chain¹

2050 Net-Zero
entire value chain



and helping others

50M
People access to
green energy by 2025

>14 GW
PPAs advised
with our clients³

800 MtCO₂e
Saved / avoided
for our customers by 2025²

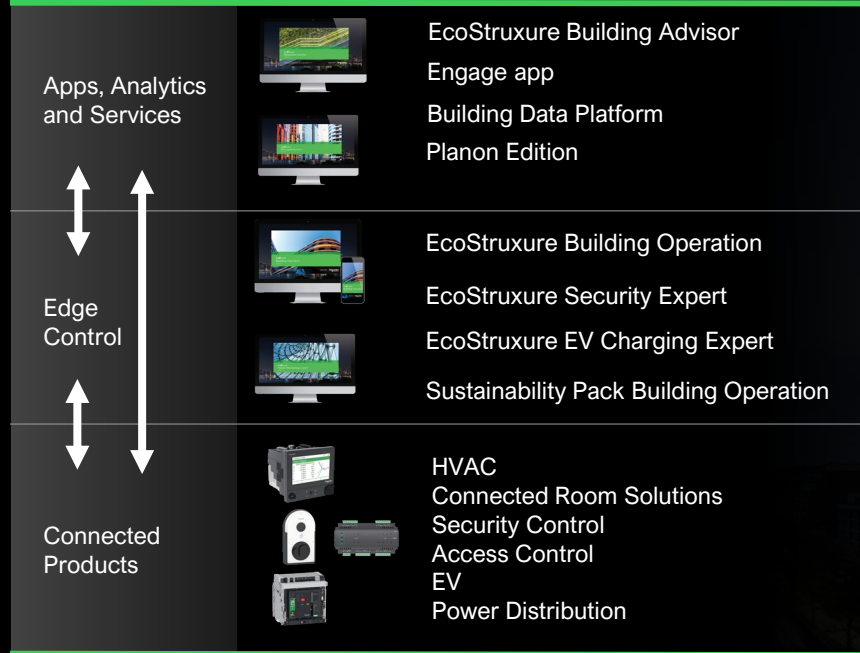


The moment is now



Life Is On

Schneider
Electric



The Louise, Belgium

24 floor - 31,000 sqm office building in Brussels, Belgium.

Customer Challenge

Deep renovation of an existing iconic building to become one of the reference in Smart Building with superior sustainability and comfort credentials for future tenants.

Solution

- Full software suite integration, including parking management, access control, and third-party platforms.
- Implementation of Smart Building Management System to ensure efficient and effective facility management with flexibility for future tenants needs.

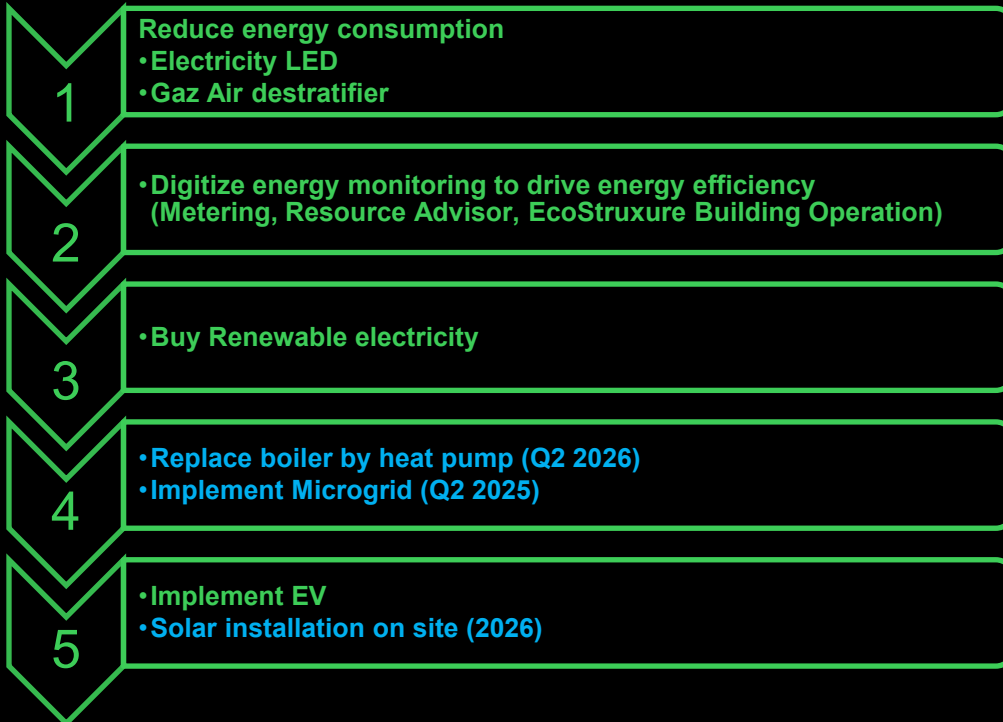
Customer Benefits

- Smart & Sustainable
- Enhanced Tenant Experience
- Cost saving / ROI



Building renovation journey Helmond DC

How to reach net-zero?



Life Is On

Schneider
Electric