

The sustainability of buildings is becoming increasingly important

Installers‘ Summit

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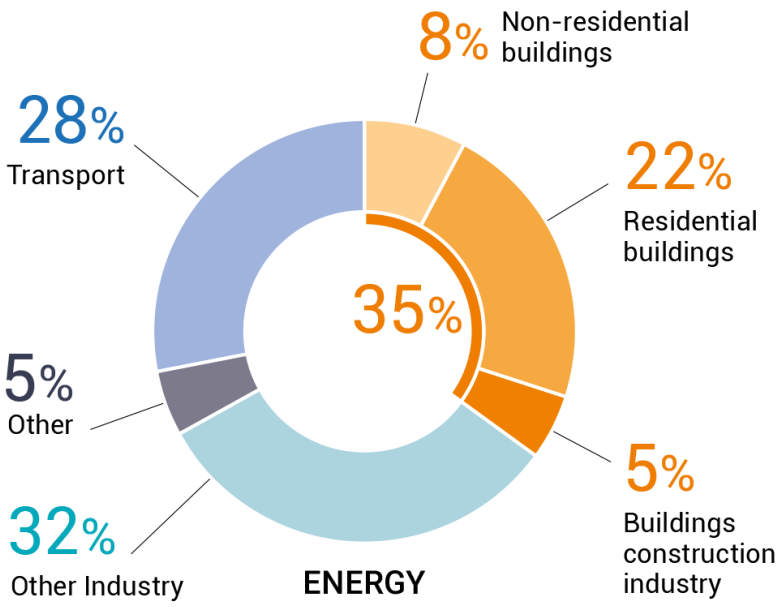
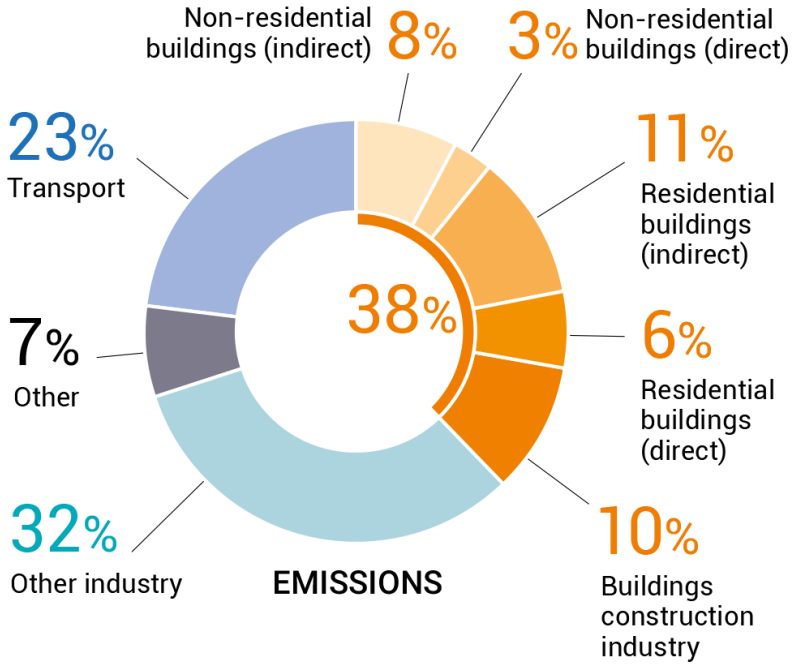
Global share of buildings and construction final energy and emissions 2019





- The building and construction sector makes up a large proportion of global energy consumption and carbon emissions.

Notes: Buildings construction industry is the portion (estimated) of overall industry devoted to manufacturing building construction materials such as steel, cement and glass. Indirect emissions are emissions from power generation for electricity and commercial heat.

Sources: (IEA 2020d; IEA 2020b). All rights reserved. Adapted from “IEA World Energy Statistics and Balances” and “Energy Technology Perspectives".

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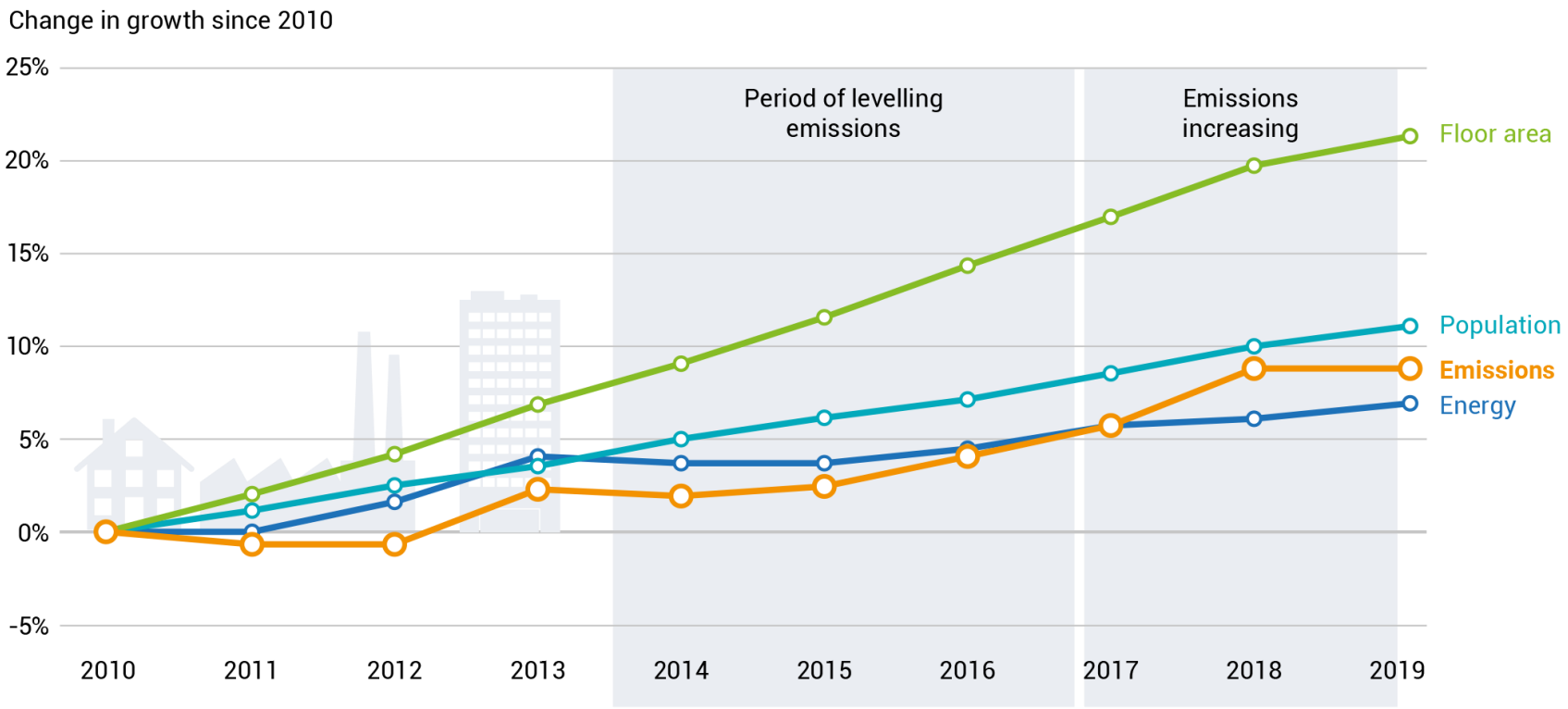
Change in global trend drivers within buildings energy and emissions 2010-2019



Source: IEA (2020b). All rights reserved. Adapted from "Energy Technology Perspectives 2020"

- The increasing trend in emissions has stopped, however the increase in energy consumption continues
- European Green Deal: Goal is to create a net-zero carbon balance by 2050 in the building and construction sector
- An aggressive reduction of energy demand and carbon emissions is necessary

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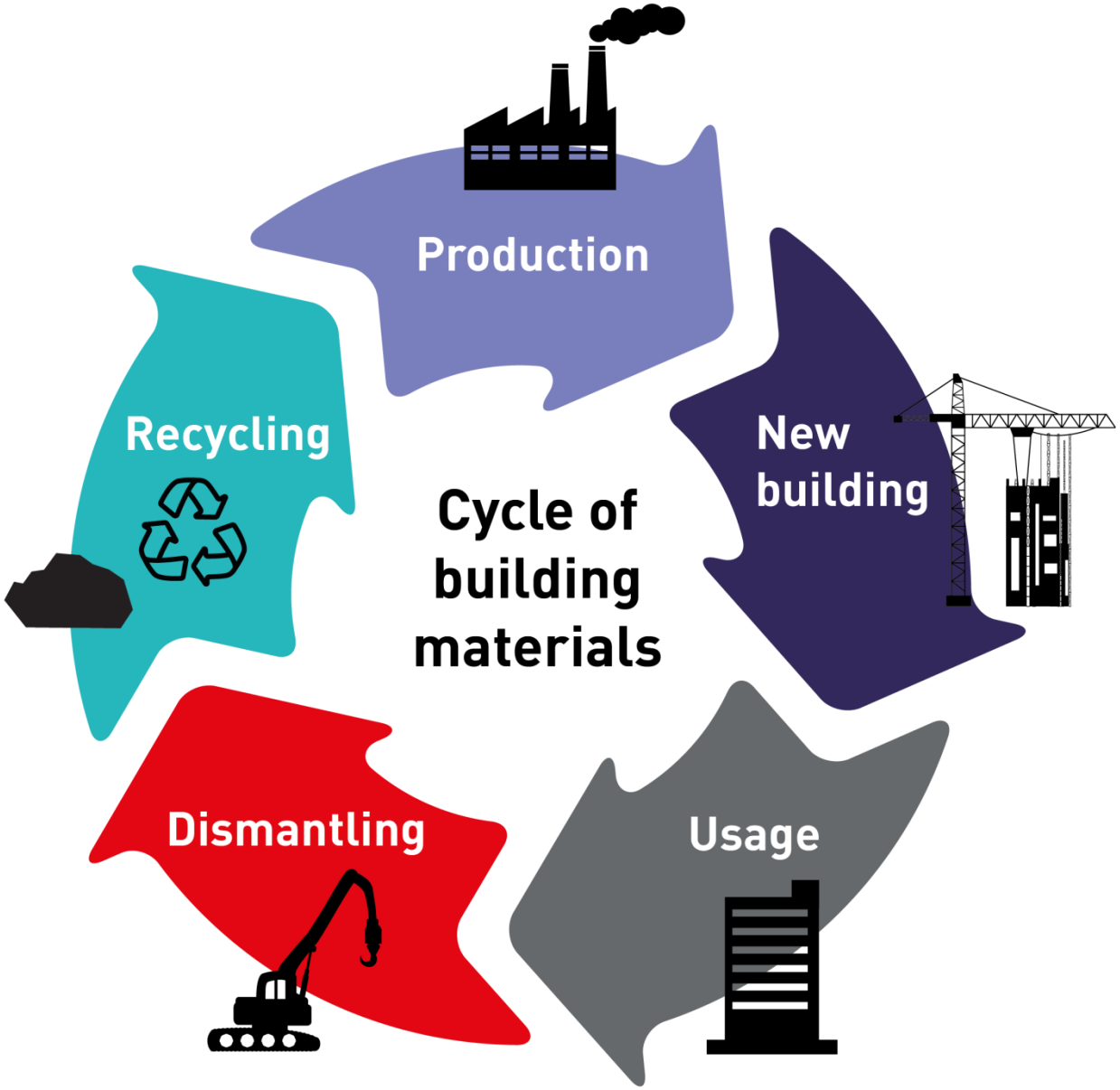
- The European Green Deal is a project for the future and is intend to lead to a climate-neutral Europe in the long-term.
- This is a big challenge and at the same time an opportunity for our construction, installers and facility management industries.
- The contributions to the sustainability of individual industries introduced in the following serve as examples for this.

Example:
Existing buildings

- Urban mining – recovery of building materials
- Secondary raw materials can be reused like primary raw materials



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Example:
New buildings

- Planning and execution in such a way that they can be reused or used two or three times if possible.
- Region Brussels
  A classic demolition is only allowed if there is an urban mining concept and a large part of the materials is reused. In this way, there is a transition to recyclable property.



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Example:
Technical building engineering/ installations

- Reuse of components and materials, use of recycled materials
- Planning and installation in such a way that they can be reused or used two or three times if possible
- Energy saving with all available technical possibilities during planning as well as execution, and later during operation



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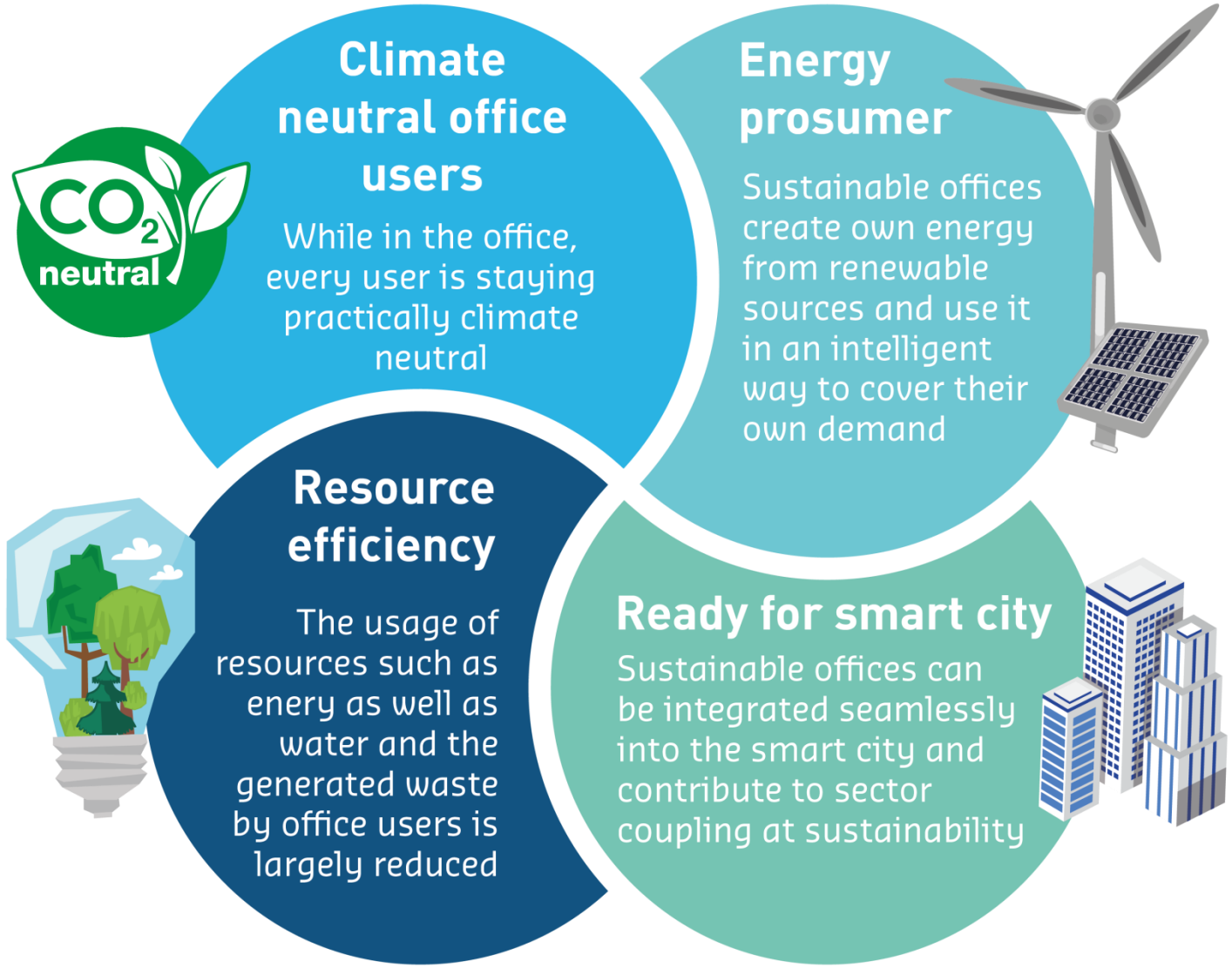
Example: Designing of offices sustainably – smart offices



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Practical examples for carbon reduction









- Energy management
- Restoration of ventilation and cooling systems
- Energy-efficient solutions like LED and smart control
- Innovative heating solutions like block-type thermal power stations
- Reduction of leaks in compressed air pipes
- Use of new technologies

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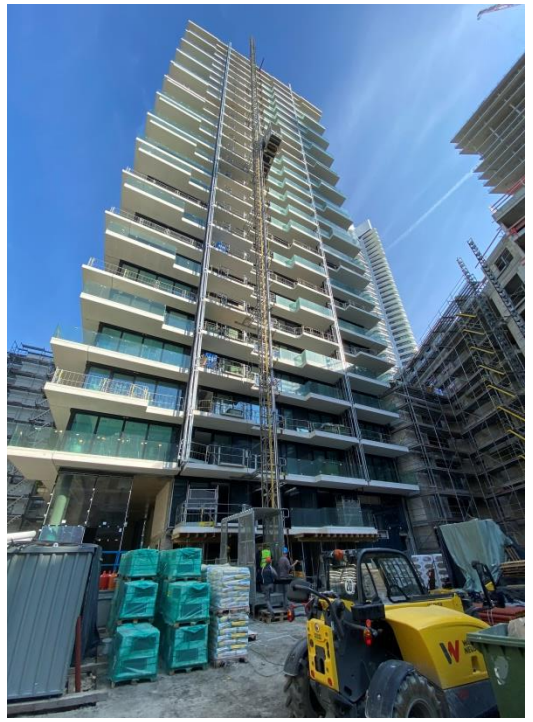
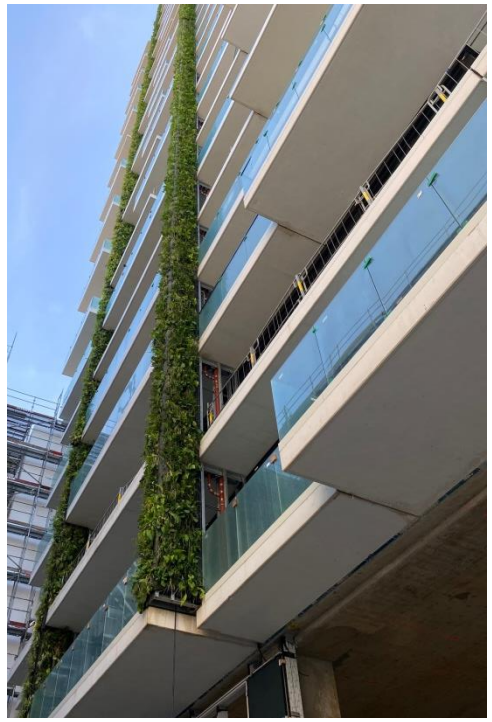
Reference GA-tec – Eden Tower Frankfurt – under construction

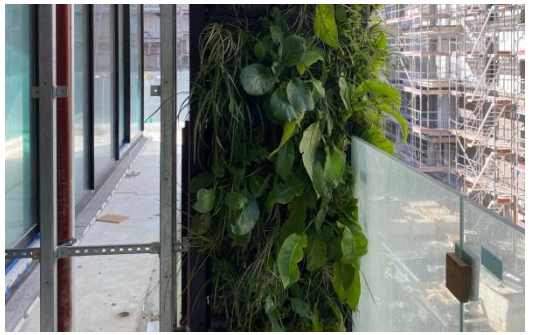
Customer:	**Immobel Belgium**
Project:	**Eden Tower**
Building:	Construction of a new high-rise residential building with 29 floors and a height of 98 m including underground parking
Site:	Frankfurt, Europaviertel
Execution period:	09/2020 – 12/2021
Order volume:	8.9 m€ for HVAC, sanitary installations and building control systems

Highlight:

The plants on the facades cover two and a half times the field of the building site







Climate-neutral city quarters an buildings

Sustainable buildings and operations



Added-value for investors, users, construction industry, installers, FM companies

… and for the future of our planet