Green building

Please find below 20 examples on real, implemented green growth ideas in a field of **Green Building.**

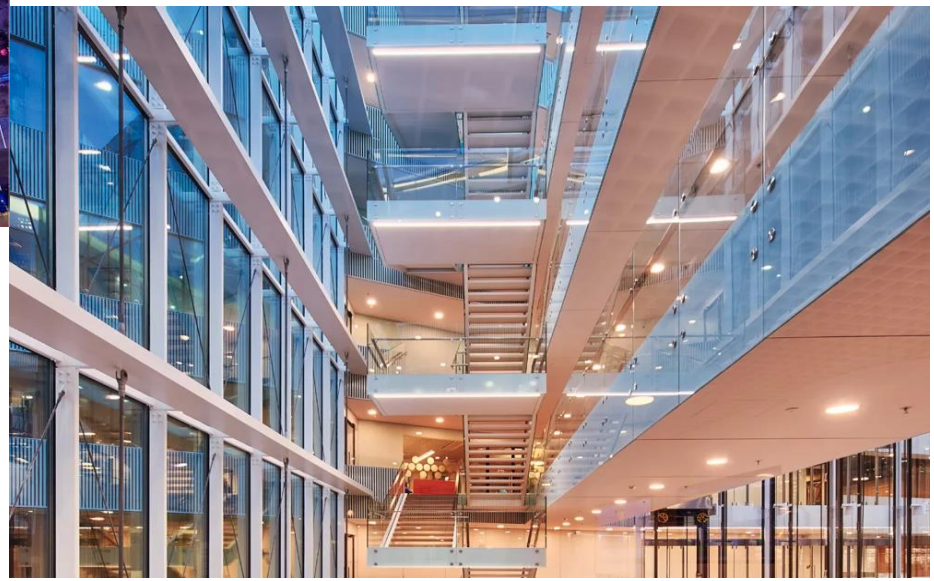
Examples are provided from these countries:

- Lithuania (4 units)
- Sweden (4 units)
- Denmark (4 units)
- Poland (4 units)
- Germany (4 units)

This material is prepared in accordance to INTERREG V-A South Baltic Programme project „SB BRIDGE – Building bridges for green tech future“ (2019-2021)

1. Lithuania, **K29, Vilnius, 2016**

Sustainable working environment



A double façade and exterior blinds ensure the efficient use of energy resources in the building

https://k29.lt/index.php/en/about-us/

2. Lithuania, **Continental, Kaunas, 2019**

Ultra low-flush and low-flow fixtures were used to reduce indoor water consumption, achieving over 55 percent reduction from the baseline

Awarded LEED Gold

https://investlithuania.com/news/continental-lithuania-plant-in-kaunas-awarded-prestigious-leed-green-building-certification-in-level-gold/

3. Lithuania, **Green Hall 3, Vilnius, 2020**

The building uses geothermal heating that provides as much as 80 percent of energy necessary for heating and leaves minimal traces of CO2

Open to nature and the sun

A double-skin facade protects employees from the city noise and keeps the heat inside

http://www.greenhall.lt/green-hall-3-en/

4. Lithuania, **Innovo Logistics, Klaipėda, 2020**

Offices located under a green roof will not heat up in summer, and will save heat energy in winter, reduce the load on the rainwater drainage system

Geothermal heating installed, electricity generated by a solar power plant, an intelligent LED lighting system be installed

https://www.sba.lt/en/furniture/innovo-logistika/

1. Sweden, **Västra Hamnen, Malmö, 2010**

Is often cited as Europe's first carbon-neutral neighbourhood

Former shipyard has implemented a smart heating and cooling system which runs entirely on renewable energy

https://sweden.se/nature/7-examples-of-sustainability-in-sweden/

2. Sweden, **Väla Gård, Helsingborg, 2012**

The heat is sourced into water via a heat regulator and the heated water is then pumped into the nearby Kungsbrohuset to provide heating

Has air-purifying plant walls, produces more energy than it consumes and has the highest platinum level LEED certification for green buildings

https://sweden.se/nature/7-examples-of-sustainability-in-sweden/

3. Sweden, **Lustgården, Stockholm, 2016**

Platinum-classified in accordance with LEED

The sun-screen system is synchronised with Skanska's cooling system

https://www.sweco.se/en/our-offer/architecture/office/lustgarden-stockholm/

4. Sweden, **New Karolinska Solna University Hospital, 2016**

Designed to be one of the world's most energy-efficient hospitals

One of the low energy solutions is energy recycling, including windows that let the light in but keep the heat out

https://group.skanska.com/projects/57344/New-Karolinska-Solna

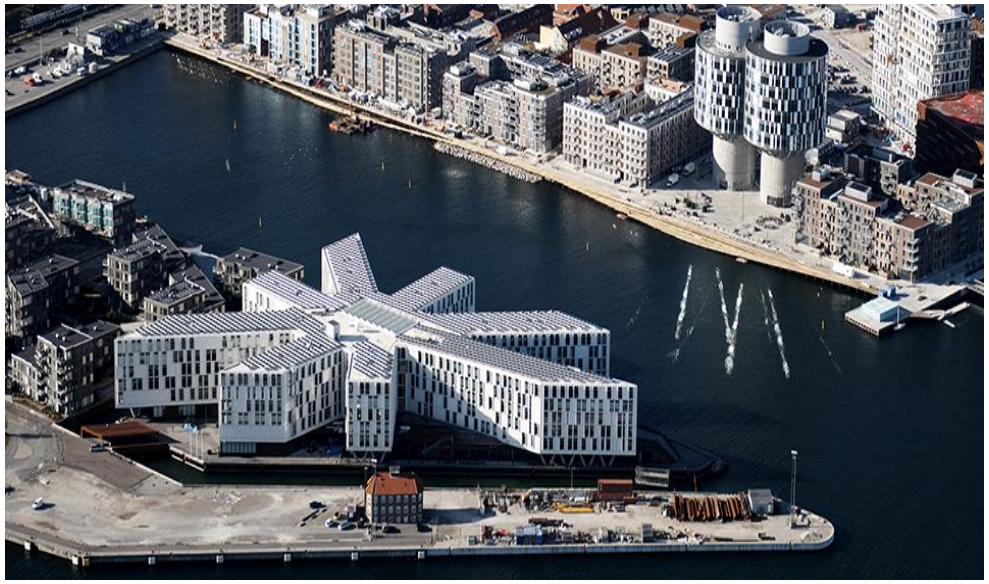
1. Denmark, **Green LightHouse, Copenhagen, 2009**

The open atrium and skylights encourage natural ventilation and support the hybrid system

Night cooling, solar panels, and LED lighting were incorporated to maximize energy efficiency

https://www.activehouse.info/cases/green-lighthouse/

2. Denmark, **UN City, Copenhagen, 2013**

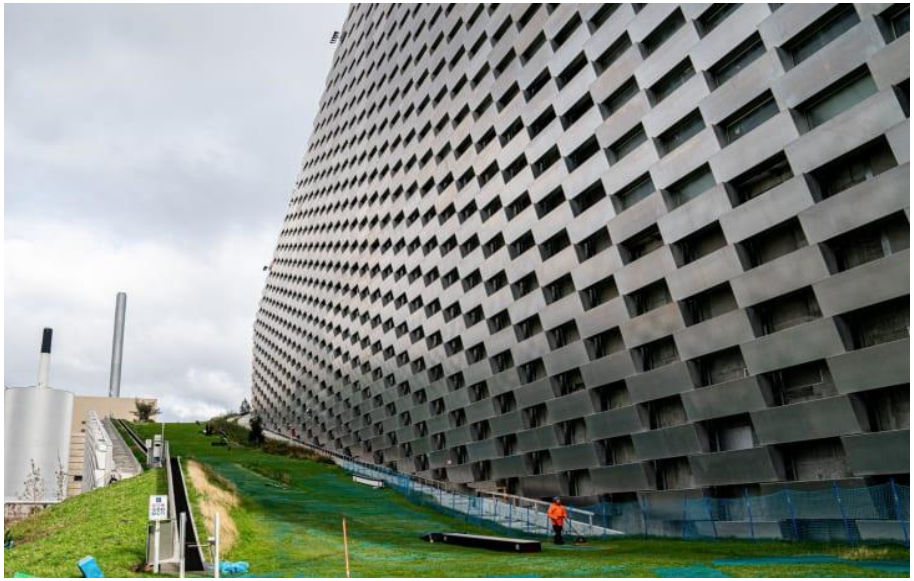


Has more than 1400 solar panels

Has a rainwater collection system, sea water cooling, district heating, intelligent façade, is centrally controlled by a building management system

https://un.dk/about-un-city/green-un-city-leed-3

3. Denmark, **CopenHill, Copenhagen, 2017**



A power plant that burns waste to generate electricity, and a sports facility

440,000 tons of waste is yearly converted by furnaces, steam and turbines into clean electricity and heating for 150,000 nearby homes

https://www.copenhill.dk/en

4. Denmark, **Solrødgård Water Treatment Plant, Hillerød, 2017**

The facility is built with a green roof that functions as the urban city park

This building is a respected sustainable building due to its efforts to fix water scarcity problems

https://www.archdaily.com/923853/solrodgard-water-treatment-plant-henning-larsen

1. Poland, **Ecological House in Łąka near Pszczyny, 2009**

One of the walls is made of clay, which is a natural and cost-effective way to balance humidity levels

A characteristic feature of the building is its central part – a black 'tower'. It is a 'chimney' covered with fiber cement siding that either retains solar energy or releases its excess

https://culture.pl/en/article/living-facades-shades-of-green-in-polish-architecture

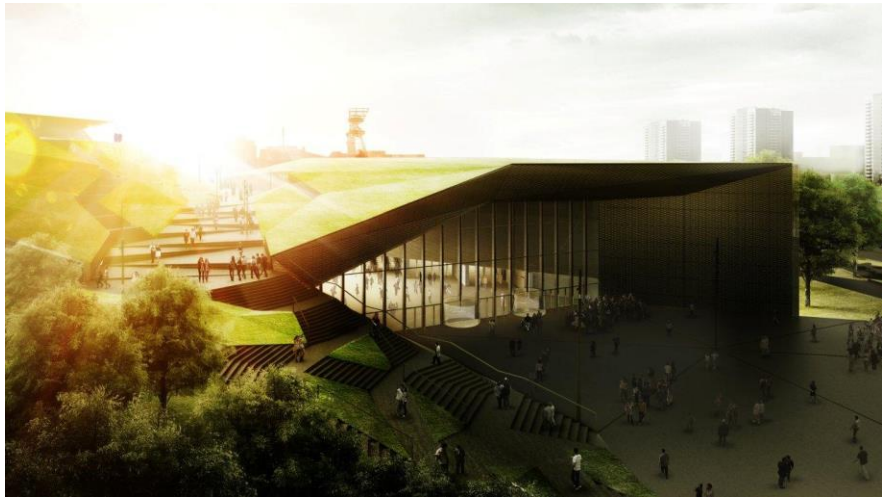
2. Poland, **Foundation for Polish Science Headquarters, Wierzbno, 2014** (renovated)

The green wall helps to improve the energy balance, creates a beneficial microclimate inside the building

The heating system uses heat pumps, whilst the light streams into the atrium, limiting energy consumption

https://www.archdaily.com/573614/foundation-for-polish-science-headquarters-faab-architektura

3. Poland, **The International Congress Centre, Katowice, 2015**

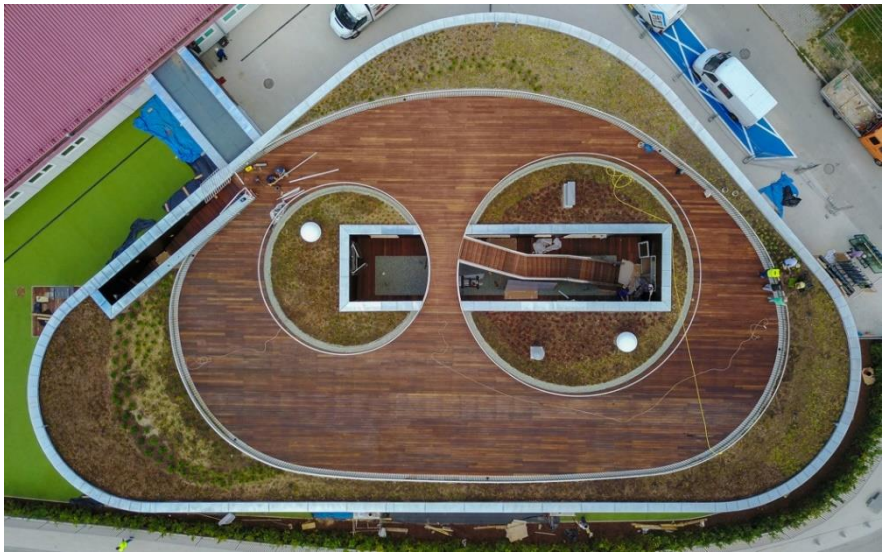


Core composition elements is the roof (green valley), integrated into a system of land slopes and natural diversity of terrain

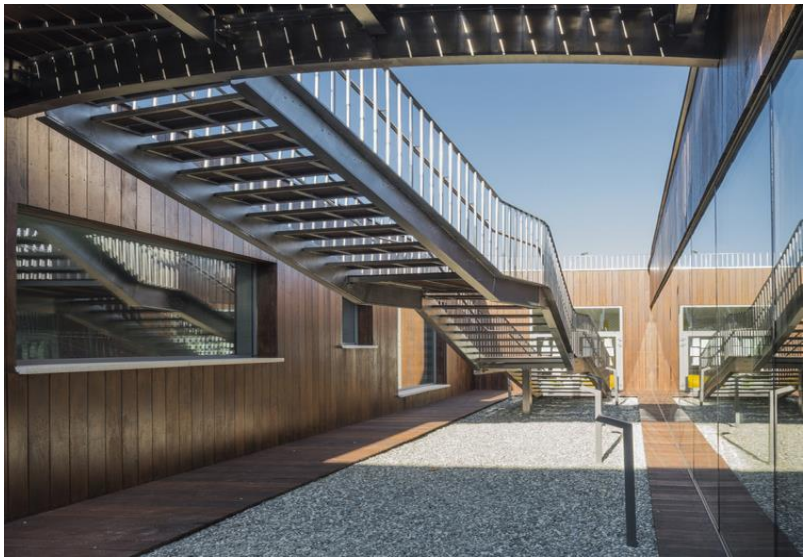
Provides not only functional solutions of a utilitarian nature, but also creates conditions for its existence within the social space of the city

https://www.archdaily.com/778138/katowice-international-conference-centre-jems

4. Poland, **Kindergarten in Żory, 2017**



User-friendly building materials, a subtle shape, and integration of the building with its surroundings



Mineral wool protects the building from the loss of energy outside and its excessive acquisition during the summer

https://www.archdaily.com/908929/kindergarten-biuro-toprojekt

1. Germany, **Sun Ship (das Sonnenschiff), Freiburg, 2004**

A small, vibrant community powered entirely by solar energy

Generate more renewable energy on-site than what the building energy demands are

https://www.e-architect.com/germany/sun-ship-freiburg

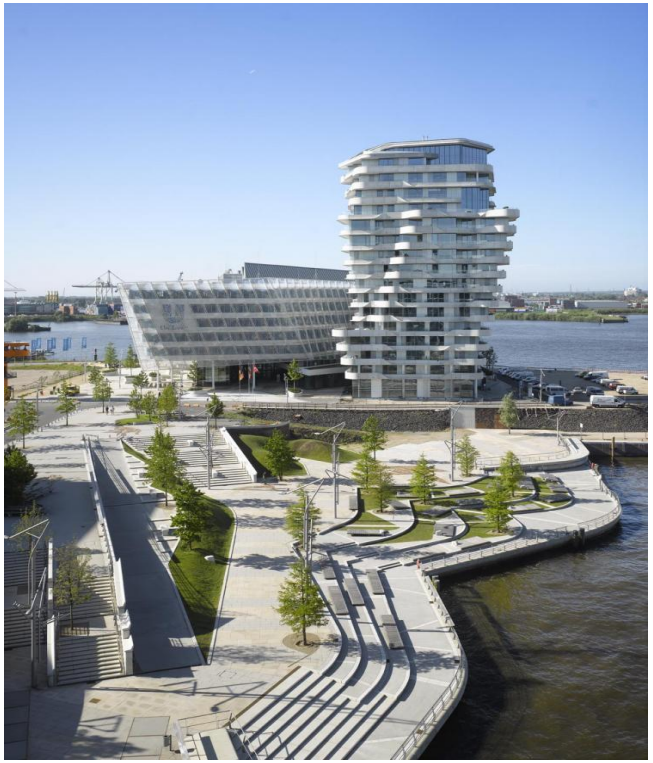
2. Germany, **Unilever Headquarters, Hamburg, 2009**

Received several awards, including the 'World Architecture Festival Award 2009

A light-weight, translucent cladding system are used

https://www.mgsarchitecture.in/architecture-design/projects/538-new-unilever-headquarters-hamburg-a-sustainable-architecture.html

3. Germany, **Marco Polo Tower, Hamburg, 2010**



Each tower floor is turned a few degrees around a central axis

Negates the need for electrical air conditioning

A heat exchanger on the roof

http://www.skyscrapercentre.com/hamburg/marco-polo-tower/12344

4. Germany, **Heliotrope, Freiburg, 2015**

The World's First Energy Positive Solar Home

Re-uses greywater and rainwater for domestic use and features a composting toilet system

Generates five times the energy it consumes

http://architectuul.com/architecture/heliotrop-rotating-house

Thank You for attention!

SB BRIDGE – Building bridges for green tech future

More info is available here: www.sbbridge.eu

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