

Climate change and construction sector: how to reduce the carbon footprint?

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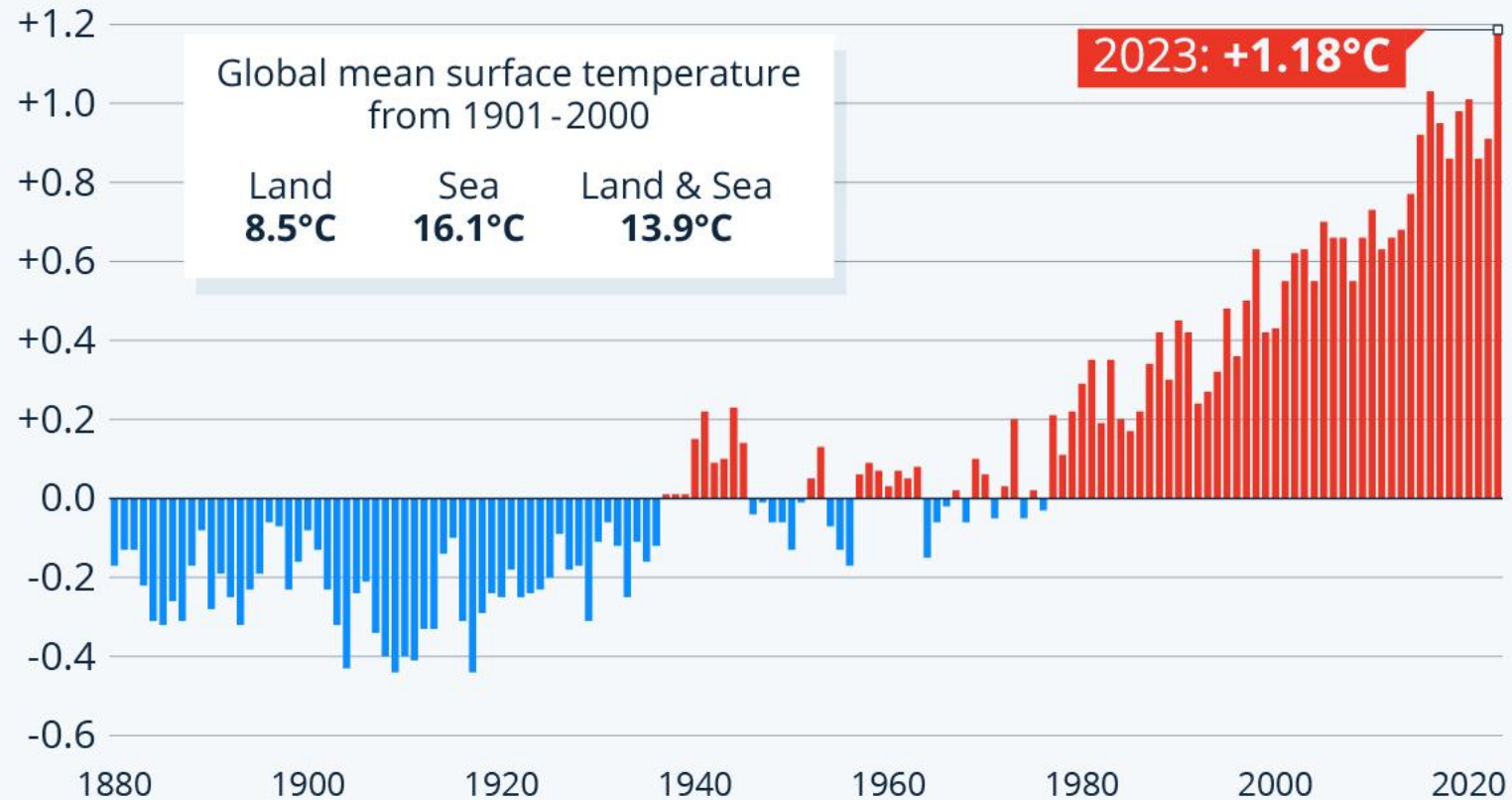
Green Finance Institute @INVEGA

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2023 Was the Warmest Year on Record – by a Record Margin

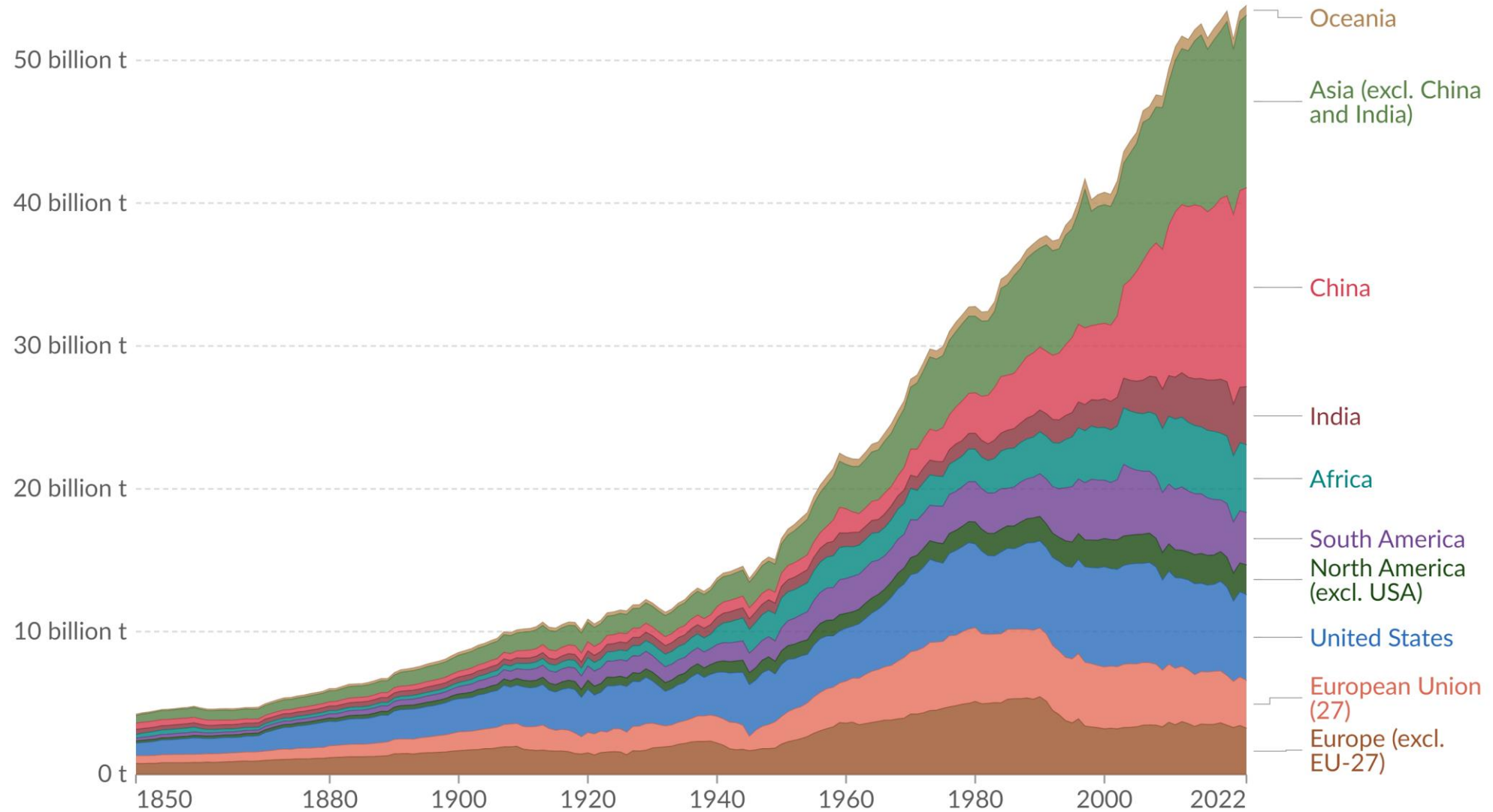
Global land and ocean surface temperature anomalies (in degrees Celsius compared to the 20th century average)

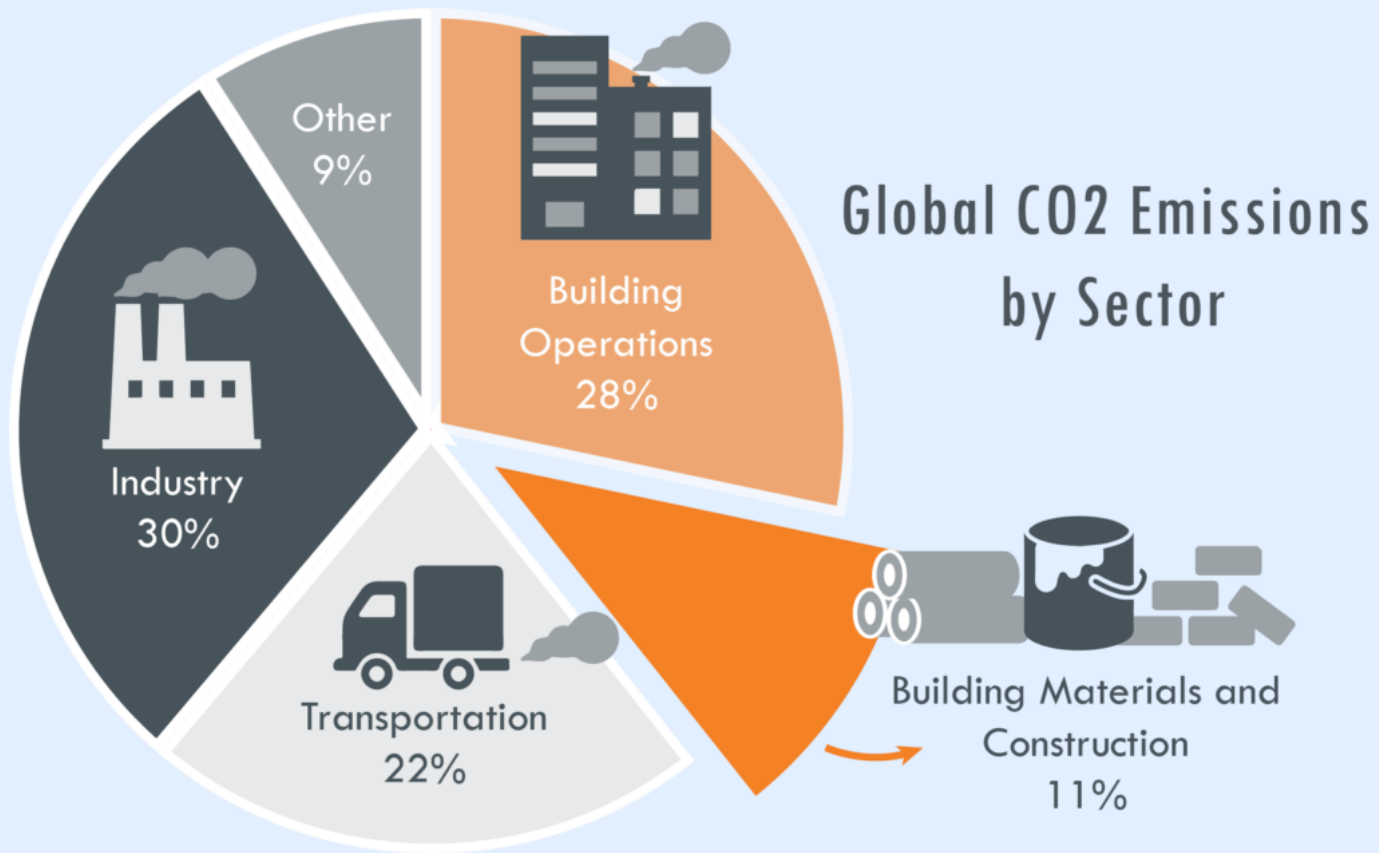


Source: NOAA

Annual greenhouse gas emissions by world region, 1850 to 2022

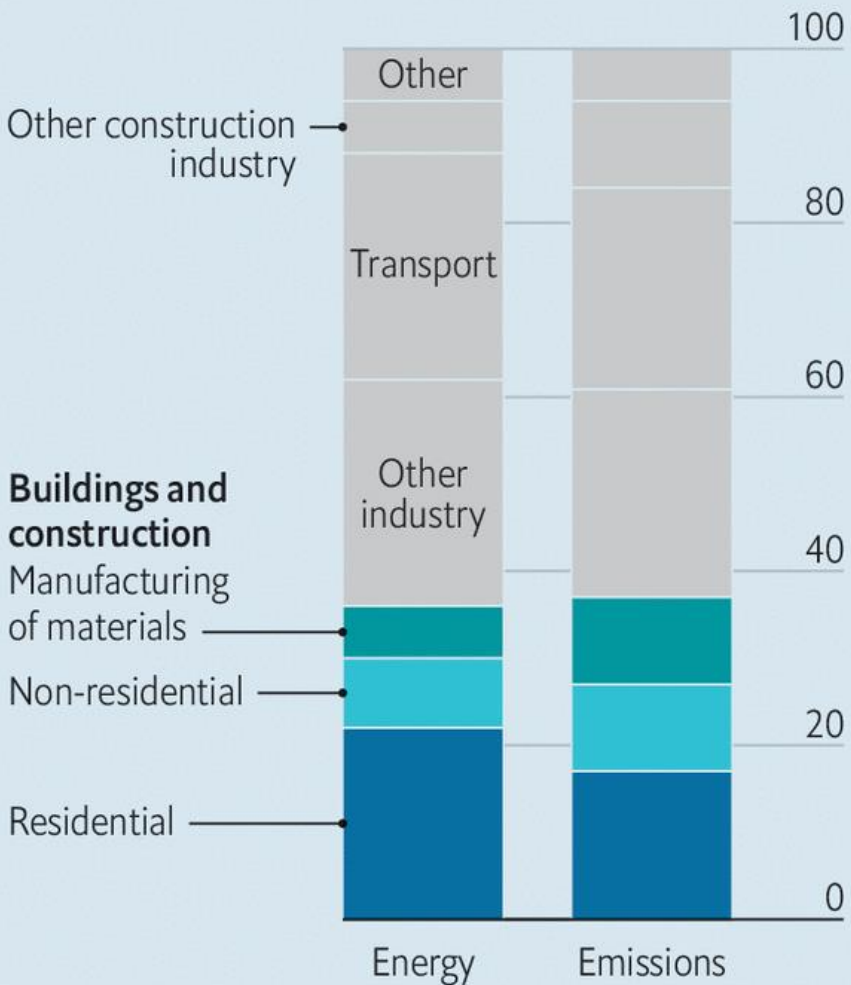
Greenhouse gas emissions include carbon dioxide, methane and nitrous oxide from all sources, including land-use change. They are measured in tonnes of carbon dioxide-equivalents over a 100-year timescale.



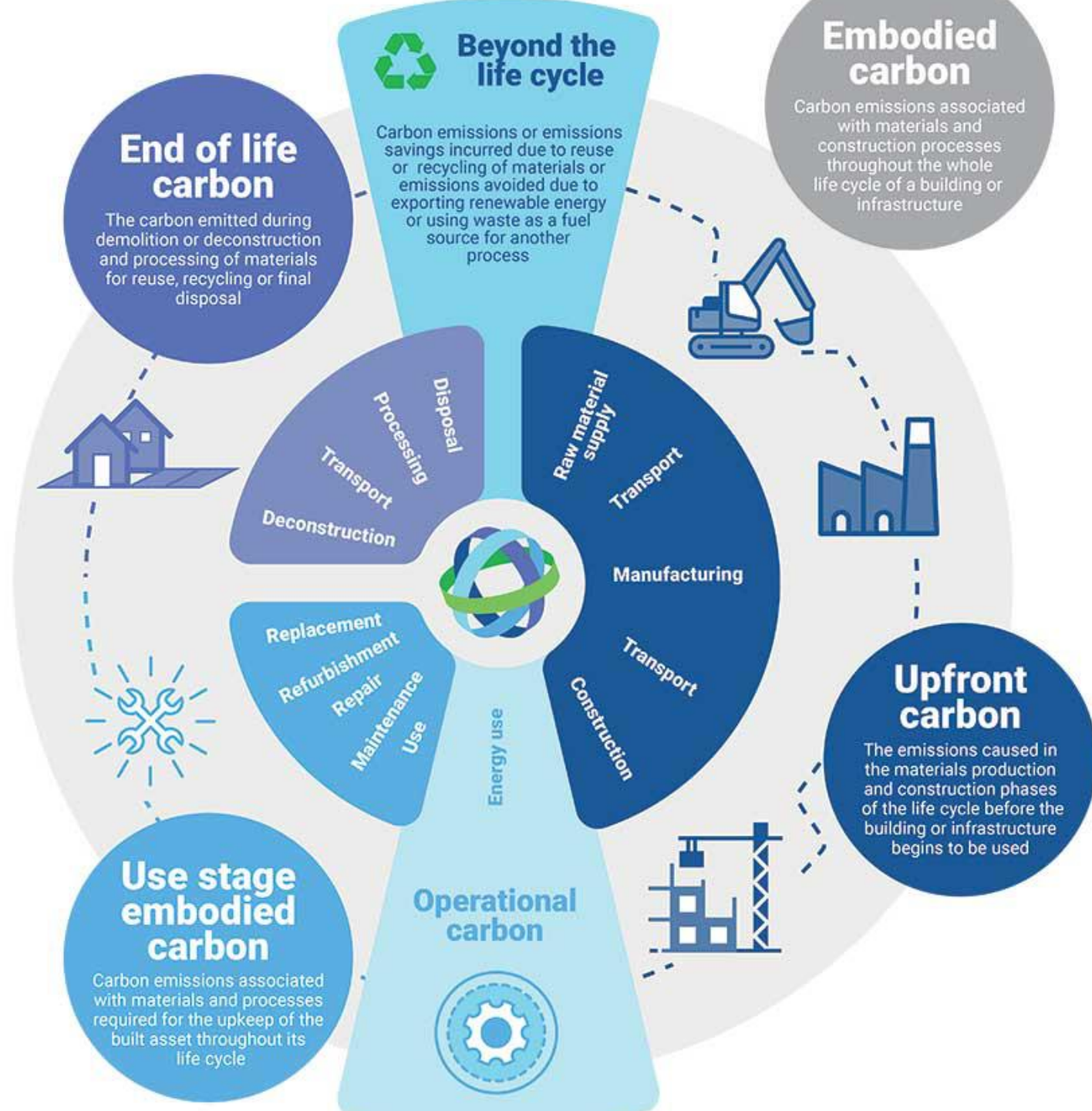


Home truths

Global industry share in final energy demand and energy-related CO₂ emissions, 2020, % of total



Source: UN Global Status Report for Buildings and Construction 2021

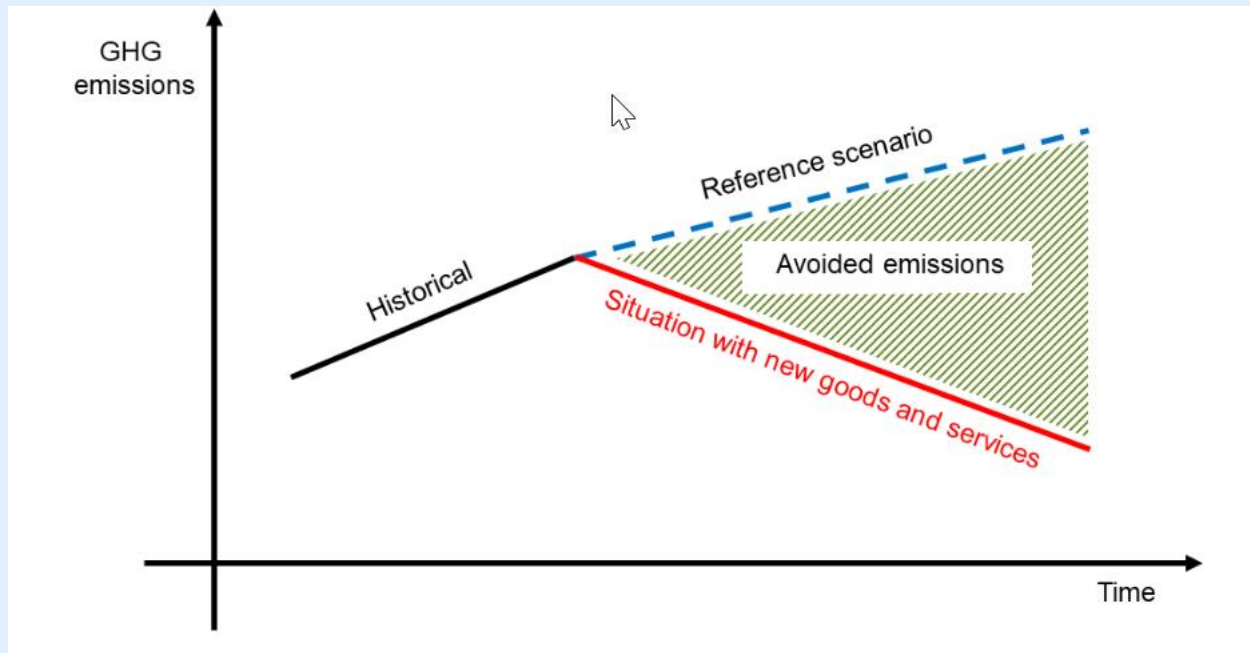


2015 The Paris Agreement: governments agreed to keep the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit it to 1.5°C

2021 European Climate Law: reaching climate neutrality by 2050 is a legal obligation for the EU. EU and its member states committed to cutting net greenhouse gas emissions in the EU by at least 55% by 2030, compared to 1990 levels.



Avoided Emissions (a.k.a. Scope 4 under GHG Protocol)



Emissions avoided when a product is used as a substitute for other goods or services, fulfilling the same functions but with a lower carbon intensity



Build nothing

Repurpose / refurbish buildings
(Design flexible and adaptable structures)

Build less

Build only to meet needs of communities / cities
Maximize utilization of buildings, Less fit-out

Build clever

Reuse materials
(Design for deconstruction and reuse)
Use low carbon materials / products

Build efficiently

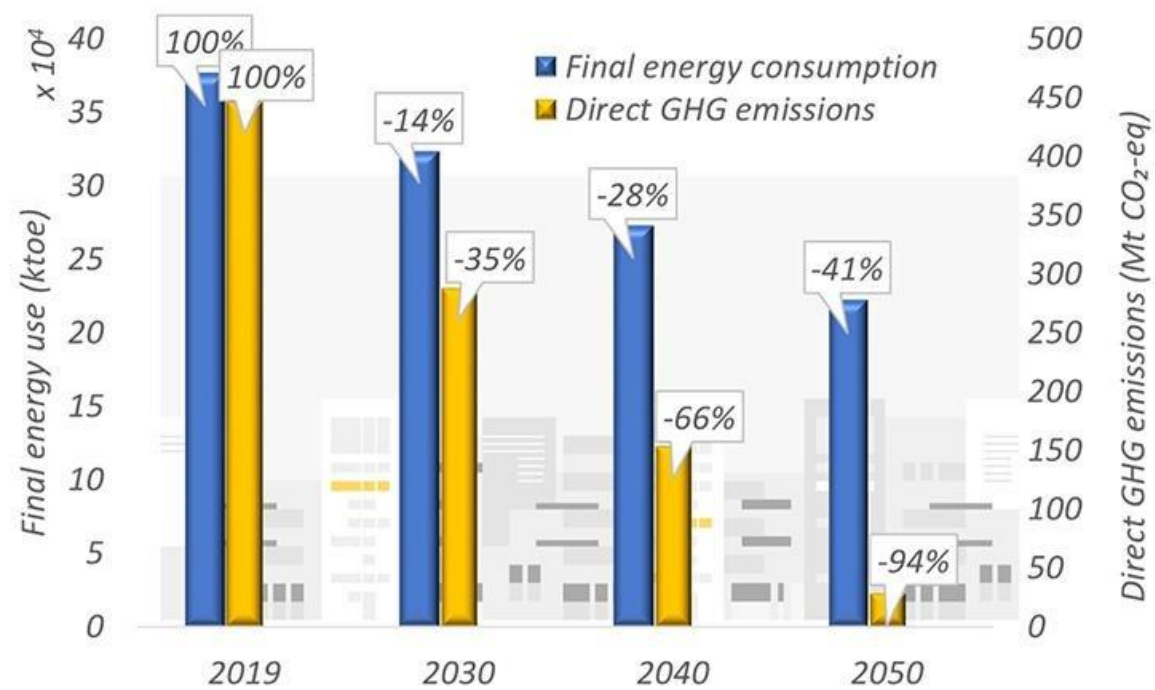
Minimize design loads
Use efficient forms and grids
Maximize material utilization

Minimize waste

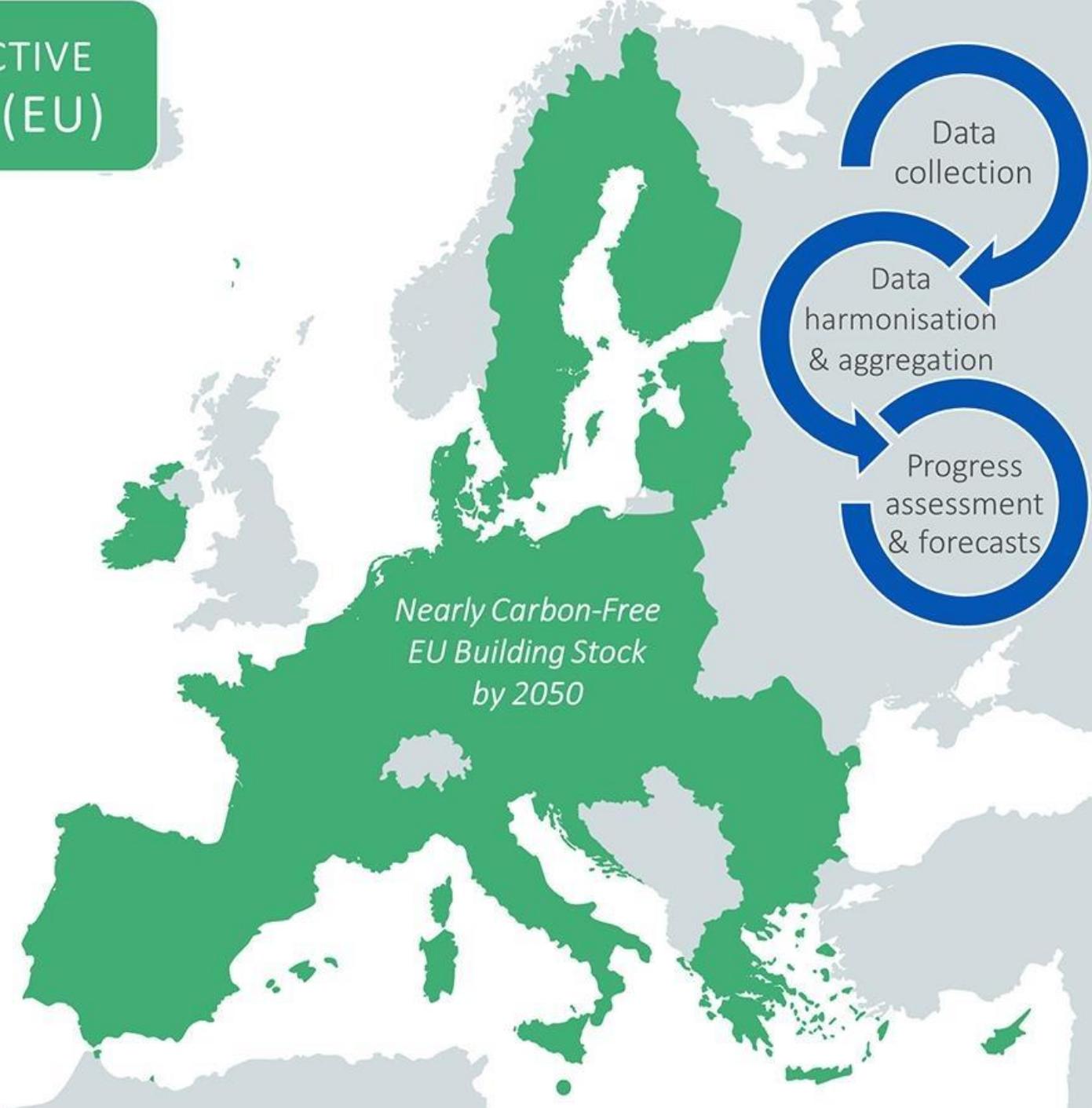
Prefabricate
Improve construction practices
Utilize reuse or recycling streams

ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE IMPLEMENTATION IN THE EUROPEAN UNION (EU)

- Long-Term Renovation Strategies
- Nearly-Zero Energy Buildings
- Energy Performance Certificates
- Inspection of Building Technical Systems



Final energy use and direct greenhouse gas (GHG) emissions reduction in the EU buildings



Invega's future plans in various stages of readiness – 2.8 bEUR + private funds

Areas	Description	Funds, mEUR
Business	startups, start-up SMEs, promotion of innovation supply, short value creation chains, transformation of industrial companies, automation, digitization of high added value companies	286 (ESIF) + 166 (national)
	circular economy, decarbonization, energy efficiency, digitization, export, biotechnology, defense and security industry, etc.	1000 (RRF)
	microcredits (EPF3), bond guarantees, debt funds, NATO Innovation Fund, Development Funds III	181 (national)
Modernization of apartment buildings	(*will aim to raise x4 private funds)	192 (ESIF)*
Renewable energy in business and public sector		533 (RRF) + 220 (national)
Other infrastructure	modernization of public buildings, centralized heating networks, cultural heritage	117 (ESIF)
Agriculture	establishment of young farmers, investments in agricultural holdings, processing of agricultural products, sustainable investments in agricultural holdings + UA war victims	73 (ESIF) + 23 (national)

About Green Finance Institute

The logo for the Green Finance Institute (zfi) consists of the lowercase letters 'zfi' in a bold, dark blue, sans-serif font.

Lietuvos Respublikos
FINANSŲ MINISTERIJA



*Center of knowledge and competence in green
finance*

First in Lithuania and the Baltic region

Established by the Ministry of Finance

Operating within internal structure of INVEGA

Collaboration
+
Synergy
=
Progress



Strategic Objectives

Green Finance Competence Center

- Strengthen preparation for the application of the new requirements
- Promote the use of ESG methodologies in the investment evaluation processes
- Increase the knowledge about green finance and possible sources of green funding solutions in Lithuania

Development of Lithuanian Green Finance Ecosystem

- Create ecosystem suitable for establishment of Greentech companies and attraction of green financing in Lithuania
- Increase public-private cooperation in the field of sustainable (green) finance
- Strengthen Lithuania's image in the field of green finance

What we do



Consultations



Technical support



Informational activities



Management of
cooperation platform



Development of
methodologies, guidelines



Educational initiatives

Let's make a
greener
future!

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