

# Renovating Europe – How to Start and Steer a Wave?

Online Research Workshop

Live, Eat and Travel: Implementing the European Green Deal

Darmstadt, 2 December 2021, Institute for Housing and Environment (IWU)

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# Overview

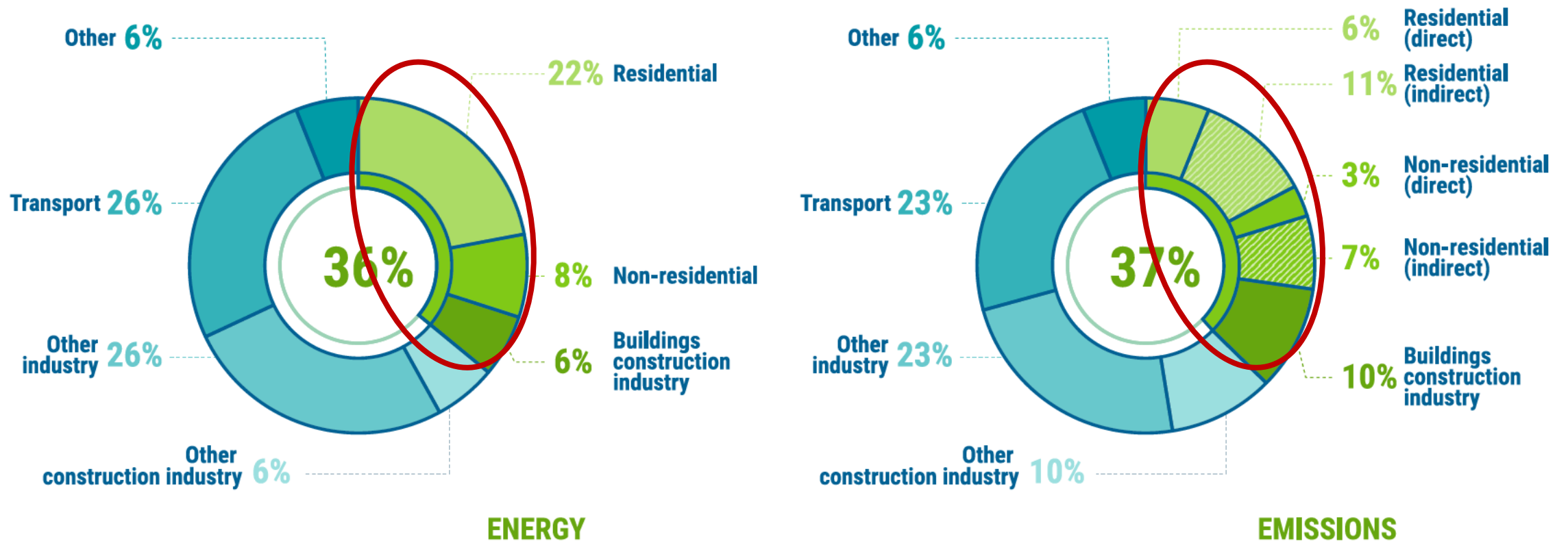
1. Why does buildings policy matter?
2. European Green Deal (EGD) + Renovation Wave
3. Analysis framework
4. Analysing the EGD and the Renovation Wave
5. Lessons from Germany
6. Conclusion + where next?

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# Why does buildings policy matter?

Figure 2. Buildings and construction's share of global final energy and energy-related CO<sub>2</sub> emissions, 2020



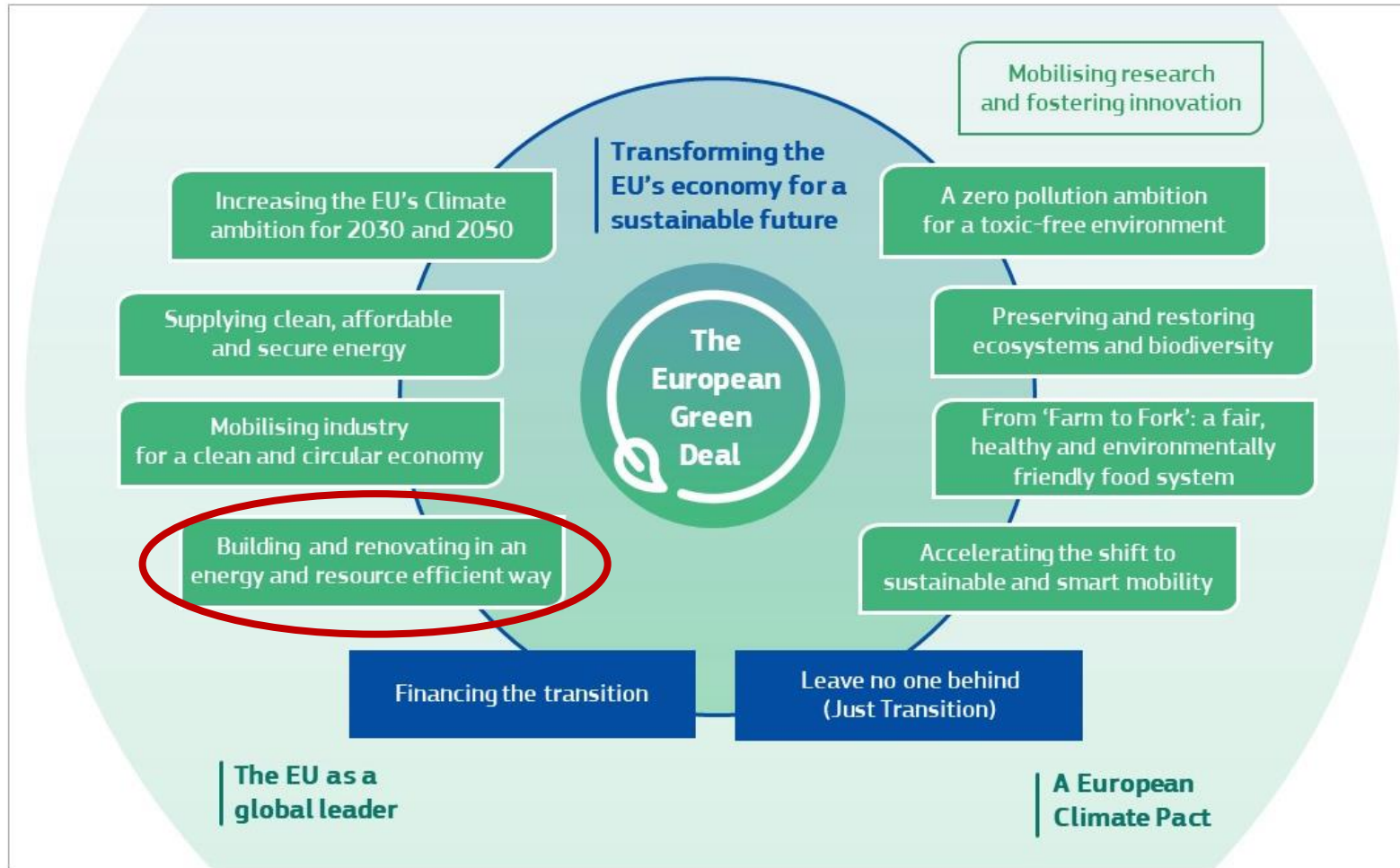
Source: [UNEP 2021 global status report for buildings and construction](#), p. 15

„To achieve the Paris Agreement, the global buildings and construction sector must almost completely decarbonize by 2050.“ (UNEP, 2021, p. 16)

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# The European Green Deal



Source: [The European Green Deal. COM\(2019\) 640 final.](#)

# The Renovation Wave



Brussels, 14.10.2020  
COM(2020) 662 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives**

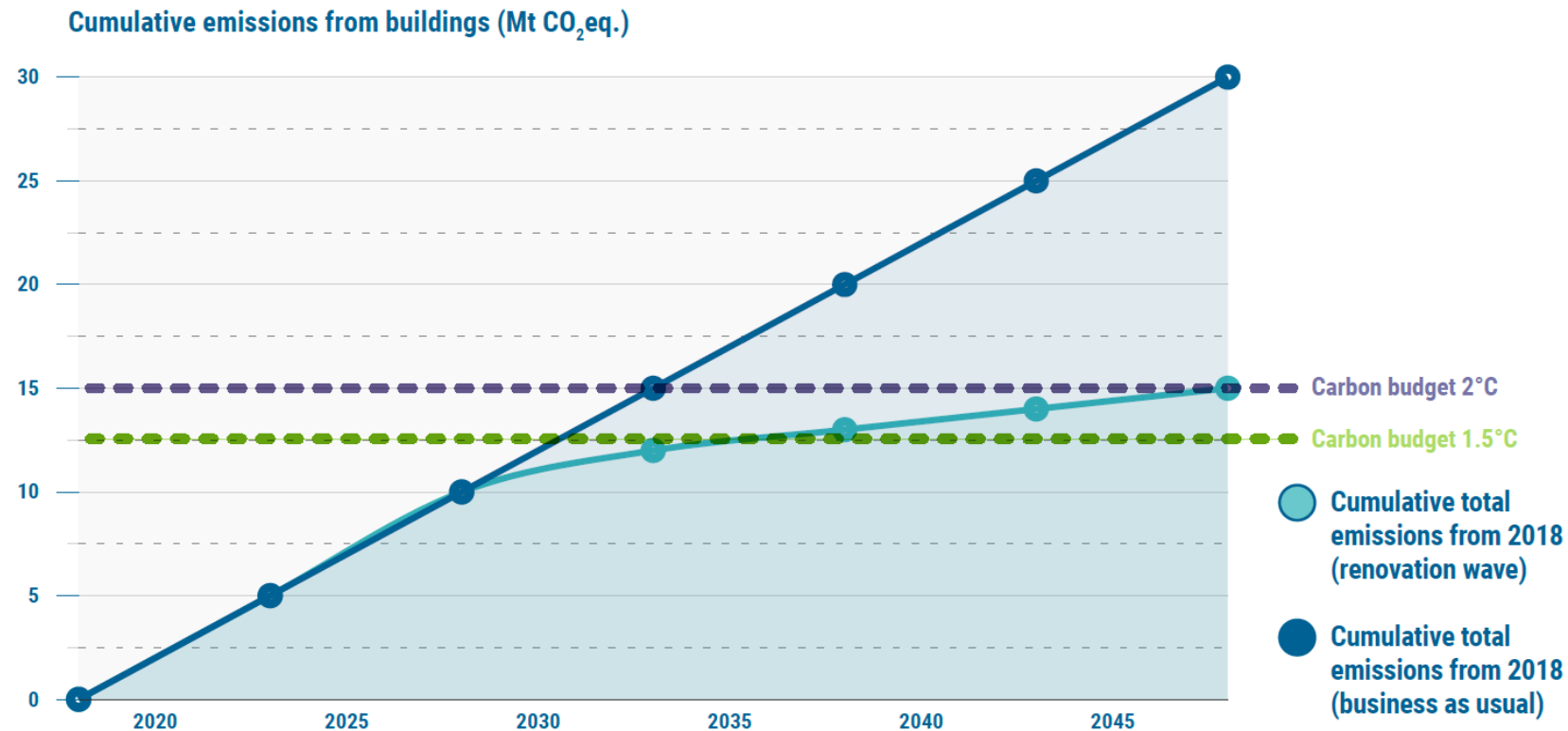
{SWD(2020) 550 final}

Source: [A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives. COM\(2020\) 662 final.](#)



# Goals of the Renovation Wave

**Figure 29. Comparison of cumulative greenhouse gas emissions assuming embodied greenhouse gas emissions of 125 kg CO<sub>2</sub>eq/m<sup>2</sup>: EU Renovation Wave and business as usual**



Source: EASAC 2021, p. 35; Koninx 2020

Source: [UNEP 2021 global status report for buildings and construction](#), p. 75

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# Analysis framework

- Contribution for: H. Dyrhaug & K. Kurze (Eds.): *Making the European Green Deal work: EU sustainability policies at home and abroad*
- **What is the governance approach of the EGD/the Renovation Wave in the residential and the non-residential building sector?**
- Institutional framework
  - Logic of consequences (e.g., financial support, penalties, regulation)
  - Logic of appropriateness (e.g., social norms/interactions, networks, negotiations, dialogues)

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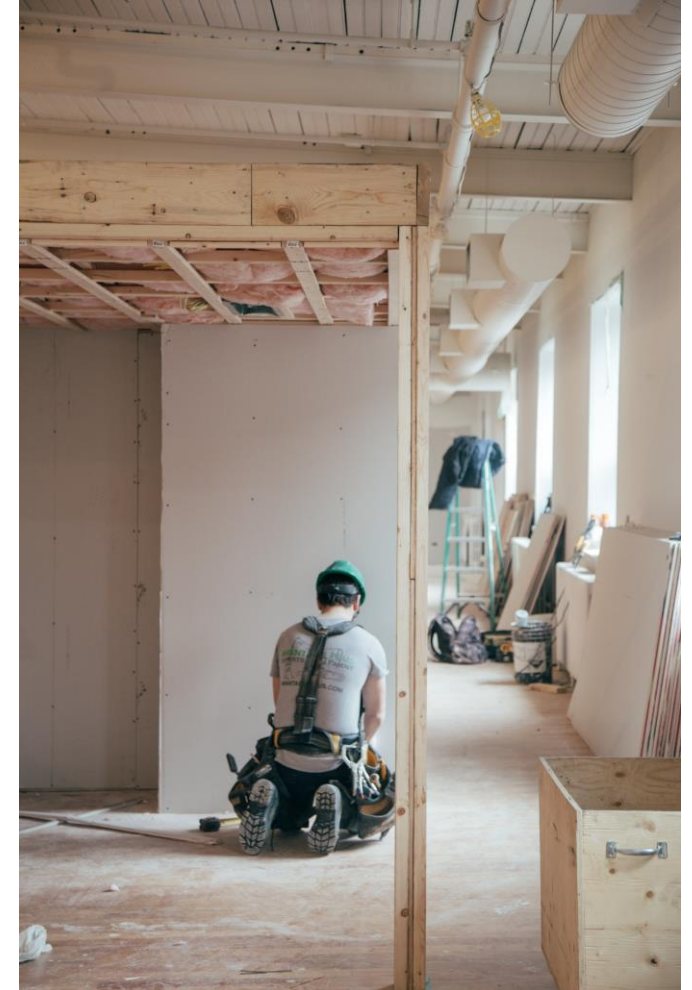
# EU Climate Targets

- At least 55% GHG-Reduction by 2030 (compared to 1990)

## Buildings-targets:

- 60% GHG reduction by 2030 (compared to 2015)
- 14% reduction of final energy consumption (compared to 2015)
- 18% reduction of energy consumption for heating and cooling (compared to 2015)
- Current renovation rate: 1% → Goal: Double by 2030 (in the residential and non-residential sectors); 35 Mio. renovated buildings by 2030
- 160 000 new, green jobs

Source: [A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives. COM\(2020\) 662 final.](#)



Source: [Charles Deluvio](#) on [Unsplash](#)

# Starting and Steering a Wave?



- Regulation
  - **Energy Performance of Buildings Directive (EPBD)** revision
    - Mandatory minimum energy performance standards for existing buildings
    - Deep renovation standard
  - **Renewable Energy Directive (RED)** revision
  - **Energy Efficiency Directive (EED)** revision
  - Further develop the Ecodesign Framework Directive
  - Review the material recovery targets set in EU legislation for construction and demolition waste
  - Fit for 55 Package
- Finance
  - „Next Generation EU“ – Need up to 275 Billion Euros annually until 2030
  - Financial framework 2021-2027: 672,5 Mrd. from the resilience facility; 37% (ca. 249 Mrd.)
  - Finance from cohesion funds?
  - Use income from the EU ETS
- Information, Participation, Dialogue
  - Strengthen Energy Performance Certificates (EPBD)
  - Explore extended use of the EU Building Stock Observatory
  - One-stop-shops for the sector
  - Capacity building
  - Introduction of Digital Building Logbooks and Building Renovation Passports
  - Increase reuse and recycling platforms and support internal market for secondary raw materials
  - Support digitalisation in the construction sector
  - Support research and innovation
  - Support neighbourhood based approaches
  - Engage relevant stakeholders, e.g. through the Climate Pact
  - Introduce the New European Bauhaus

Source: [A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives. COM\(2020\) 662 final.](#)

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# Germany: Background

- Strongly diversified housing system
- Renting is almost equal to owning  
(with approx. 49 % of the population being tenants)
- Housing cost overburden rates are high in cities (16 %) as well as in rural areas (12 %, referring to 2019)
- → Challenge: implement socially acceptable climate protection measures in tight markets (housing shortage, high rents/prices, gentrification)

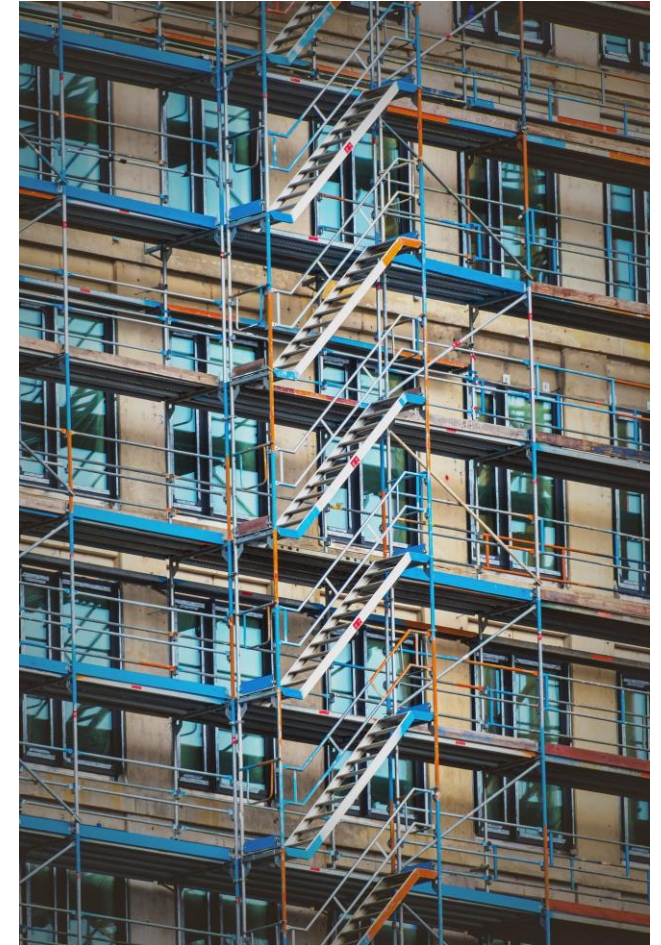
Source: [Eurostat \(2020\) Housing in Europe – statistics visualised](#)



# Germany: Existing Efforts (at federal level\*)

- General implementation of the EU directives, e.g. Building Energy Act
- Investment Support, e.g. grants, loans, market incentive programme
- Policies and Actions related to Information, Participation, Dialogue, e.g.
  - Funding programme “Energy-Efficient Urban Redevelopment” supporting climate protection measures at neighbourhood level
  - Support of energy advisory services
  - Implementation of communication campaigns

\* Federal States may impose complementary programmes

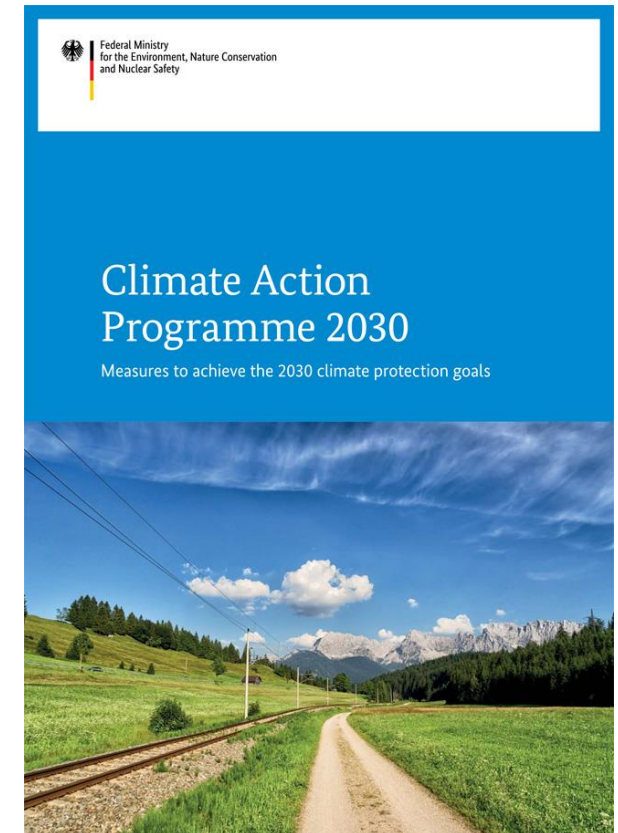


Source: Pixaby.com / Didgeman

Source: [Long-Term Renovation Strategy of the Federal Government](#)

# Germany: Existing Efforts – Climate Action Programme

- **„Climate Action Programme 2030“**  
(adopted in October 2019)
  - Aims to stimulate investments in efficiency and renewable heating systems with a mix of increased funding and GHG pricing
  - Since the implementation in 2020, funding rates have increased significantly



Source: [Federal Ministry for the Environment, Nature Conservation and Nuclear Safety](#)

# Germany: Adopted and Planned Efforts

- **„Additional Measures for the Building Sector“**  
(adopted in Sept. 2021)
  - Required due to the missed Climate Act target in 2020
  - Ensures increased funding for energy-efficient buildings until 2025
- **„Immediate Action Programme for 2022“**  
(adopted in June 2021)
  - In response to a supreme court judgement on insufficient climate policy
  - Includes i.e. (increased) funding for efficient and renewable energy supply as well as funding for energy-efficient buildings and climate friendly social housing
  - Brings forward the review of the Building Energy Act
- **Plans of the new government** (published in November 2021)
  - Tighten regulation (more ambitious energy performance standards and higher requirements for renewable energy shares), but also e.g. strengthening of neighbourhood approaches



Source:

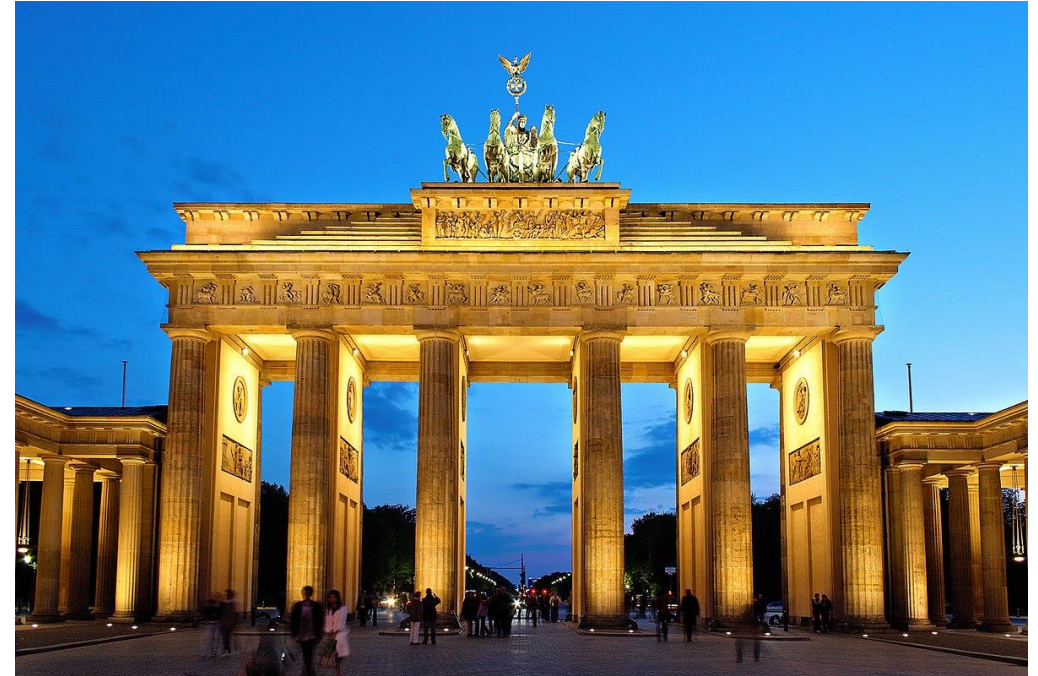
[https://de.wikipedia.org/wiki/Bundesverfassungsgericht#/media/Datei:Bundesverfassungsgericht\\_IMG1634.jpg](https://de.wikipedia.org/wiki/Bundesverfassungsgericht#/media/Datei:Bundesverfassungsgericht_IMG1634.jpg)

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# Germany: Lessons

- Complex decision-making processes and split incentives, e.g. landlord-tenant dilemma
- Currently, logic of consequences (incentives, regulation) prevails
- Stricter regulation: fear of backlash
- From individual policies to policy mixes (consider interactions)



Source: [https://commons.wikimedia.org/wiki/File:Brandenburger\\_Tor\\_abends.jpg](https://commons.wikimedia.org/wiki/File:Brandenburger_Tor_abends.jpg) by Thomas Wolf, CC BY-SA 3.0

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# Conclusion + Where next?

- Renovation/building modernization is a long-term process; typical renovation cycles of a generation
- Public governance is key in the building sector (set a framework, incentives, bringing actors together)
- Refurbishment-decisions are multi-factorial  
→ logic of consequence a necessary, but not sufficient condition
- Blend of the logic of consequences + logic of appropriateness in the Renovation Wave
- Leeway for the Member States in implementation
- Not all steering possibilities have been fully leveraged; heavily context dependent / contextual lessons
- Focus on policy mixes in the future
- Investigate the development of the Renovation Wave in different Member States (comparative work)

# Thank you.



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# Selected Sources & Further Reading



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