Delivering on the European Green Deal and Fit for 55

The EU Renovation Wave strategy and the revision of the Energy Performance of Buildings Directive

Learning event on how to promote deep renovation in multi-apartment and public buildings, 10.11.2022

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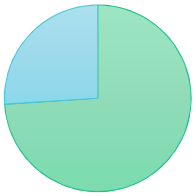
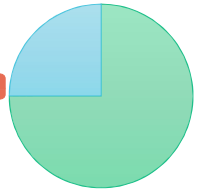
EU building stock

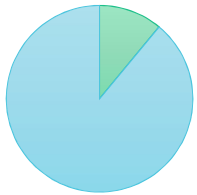
24 billion m2 floor area, around 28 % non-residential

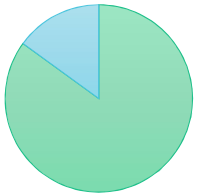


… 75 % has poor energy performance

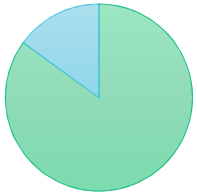


Only 11 % of existing buildings undergo some level of renovation each year





85 % of existing EU dwellings were built before 2000, of which …



… more than 85 % will still be in place in 2050

The building sector is one of the largest energy consumers in Europe, responsible for more than one third of the EU's energy-related emissions

European Green Deal

- ✓ Increased climate ambition with **buildings and their renovation** as a key focus:
  - ➢ Big energy consumers -40% of energy consumed
  - ➢ Very slow rate of renovation, exposing citizens and businesses to spikes in energy prices and to volatility
  - ➢ At the same time, many citizens struggle to keep their homes warm
  - ➢ Building renovation creates jobs, reduces green-house gas emission and improves quality of lives
  - ➢ Need to step up/double the rate energy renovations, to increase investments and make available dedicated financial instruments at large scale

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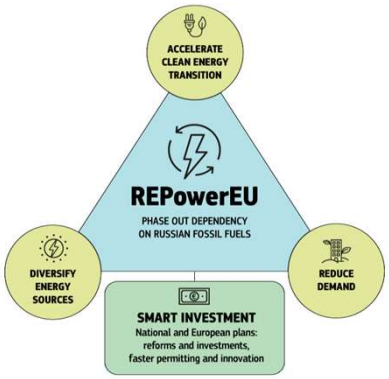
REPowerEU Plan



For:

- **saving energy**
- **producing clean energy**
- **diversifying energy supplies**

Backed by financial and legal measures to build the new energy infrastructure and system that Europe needs.

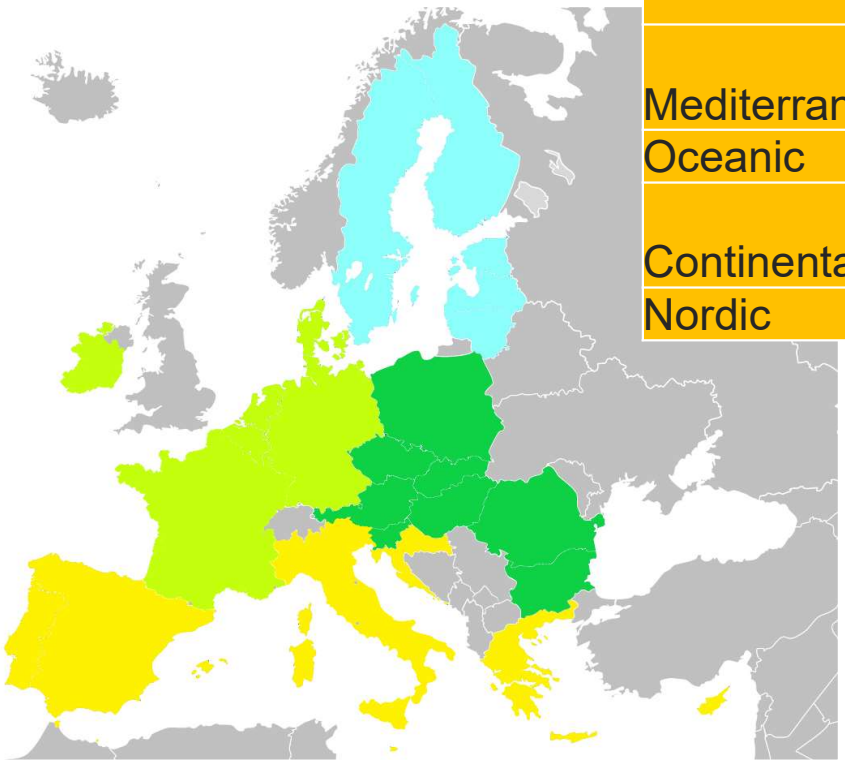
Most relevant buildings-related documents:

- ***REPowerEU Communication***
- ***EU Save Energy Communication***
- ***Amendments to Renewable Energy, Energy Performance of Buildings and Energy Efficiency Directives***
- *Regulation establishing the Recovery and Resilience Facility / Proposal for a Regulation on REPowerEU chapters in recovery and resilience plans / Guidance on recovery and resilience plans in the context of REPowerEU*

…

https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

Renovation costs to upgrade G class buildings up to D class



Climate region	Costs of renovation (EUR/m²)	Energy savings (%)	Energy savings (MWh/year)	Cost savings (EUR/year)	Payback (years)
Mediterranean	314	49%	12,6	2.363	18
Oceanic	421	50%	30,5	4.980	11
Continental	319	49%	18,9	2.204	13
Nordic	380	53%	13,1	2.524	14

- Cost and energy savings vary significantly according to countries' and buildings specificities.
- Upgrade of a G/F energy class building by 2 energy classes means about 30-40% energy savings.

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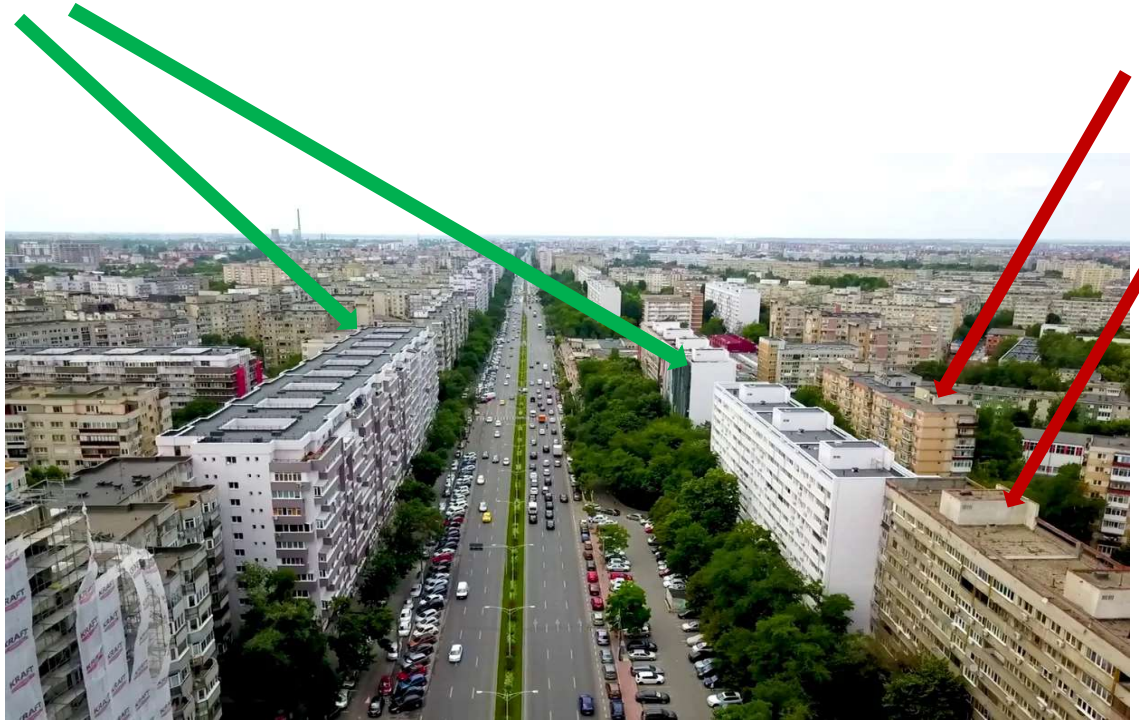
Romania – examples Bucharest – district 6

- Not only energy savings and reduced energy bills but also aesthetics gain and urban rehabilitation

After renovation

Not renovated



Typical costs for renovation from G to E class, per building unit

Country	Romania
Costs of renovation (EUR)	7.300
Energy savings (%)	28%
Energy savings (MWh/year)	15,6
Savings (EUR/year)	2,324
Payback (years)	3

Source of pictures: https://www.gandul.ro/poze/cum-arata-blocurile-reabilitate-din-sectorul-6-al-capitalei-pana-acum-au-fost-refacute-74-de-imobile-iar-80-sunt-aproape-finalizate-cat-au-costat-aceste-lucrari-video-foto-19469376?pic=5

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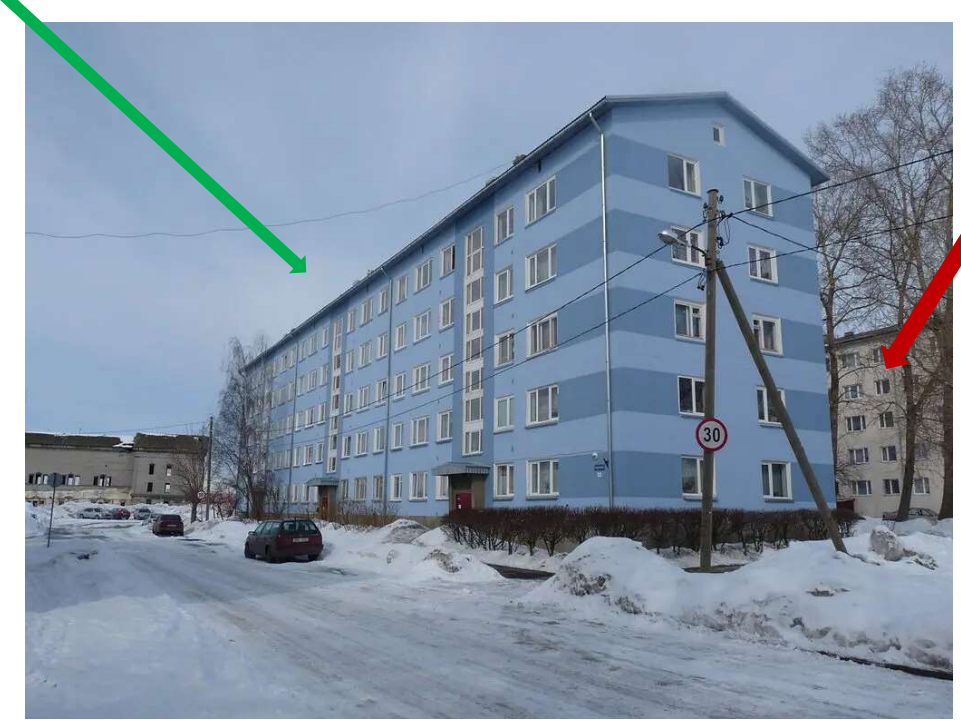
Estonia – Kredex programme

https://bpie.eu/wp-content/uploads/2015/12/Renovation-in-practice_08.pdf

After renovation

Not renovated



Source of pictures: https://news.err.ee/1223236/kredex-launches-soviet-era-apartment-block-refurbishment-scheme

Typical costs for renovation from G to E class, per building unit

Country	Estonia
Costs of renovation (EUR)	12.400
Energy savings (%)	44%
Energy savings (MWh/year)	10,3
Savings (EUR/year)	1.628
Payback (years)	8

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Hungary

Typical costs for renovation from G to E class per building unit

Country	Renovation (EUR)	Energy savings (%)	Energy savings (MWh/year)	Savings (EUR/year)	Payback (years)
Hungary	12.750	65%	30,6	1.896	7

Source of pictures: https://www.solanova.org

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EPBD legislative proposal: main revised and new provisions

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Focus areas

Renovation

- National Building Renovation Plans
- Minimum Energy Performance Standards
- Energy Performance Certificates
- Renovation passports for individual buildings

Decarbonisation

- Zero-emission buildings as new standard for new buildings and 2050 vision for building stock
- Consideration of whole life cycle carbon
- Phasing out of incentives for fossil fuels and new legal basis for national bans

Modernisation & system integration

- Infrastructure for sustainable mobility
- EPC digitalisation & databases
- Smart Readiness Indicator

Financing

- Public and private financing & technical assistance
- Deep renovation standard
- Priority to vulnerable households and people affected by energy poverty

National building renovation plans

Article 3

- Replacing and strengthening long-term renovation strategies

- Comprehensive planning and implementation tool for building renovation
  - overview of national building sector
  - roadmap with **nationally established targets for 2030, 2040, 2050**
  - overview of implemented and planned policies and measures
  - **investment needs**, financing sources and measures and administrative resources
  - **Template** in Annex II, containing mandatory and voluntary elements

- To be submitted **every five years**; first draft by 30 June 2024, then aligned with NECP cycle

- Assessment and country-specific **recommendations** by the Commission

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Minimum energy performance standards

Article 9

- Key feature: **trigger for renovation**
- Union-wide standards to **phase out worst-performing buildings**
  - Public and other non-residential buildings: at least EPC class F by 2027 & EPC class E by 2030
  - Residential buildings: at least EPC class F by 2030 & EPC class E by 2033
- Member States to set up timelines for further improvement of their building stock in their building renovation plans
- **Supporting framework** with a focus on financing and monitoring of social impact

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Deep renovation

- **Gold standard for building renovation**
- **Definitions *(Article 2(19), (20)):***

  19. 'deep renovation' means a renovation which transforms a building or building unit

  (a) before 1 January 2030, into a nearly zero-energy building;

  (b) as of 1 January 2030, into a zero-emission building;

  20. 'staged deep renovation' means a deep renovation carried out in several steps, following the steps set out in a renovation passport in accordance with Article 10;

- **Deep renovation is not mandatory, but Member States shall provide higher support for deep renovation *(Article 15(11))***

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Financial incentives and market barriers

Article 15

- Clear obligation for Member States to provide **appropriate financing and support measures** and **stimulate private investments**, in line with building renovation plans and 2050 goal
- Removal of non-economic barriers to building renovation
- **Technical assistance** to all involved; measures to ensure sufficient workforce and skills
- No financial incentives for **fossil fuel boilers** after 2027
- Financial incentives shall focus on **vulnerable households**, people affected by energy poverty and people living in social housing

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Thank you

Finance for energy efficiency

EU-funding landscape

- **Direct investments:** Recovery and Resilience Facility (EEF), Cohesion Policy Funds (ERDF/CF), Just Transition Fund (JTF), ETS Revenues, Modernisation Fund.
- **Leverage private capitals, project development assistance and advisory**: InvestEU, ELENA Facility, Technical Support Instrument (TSI).
- **Market uptake, policy enhancement activities, technological development, research and innovation:** Horizon Europe, Built4People Partnership, LIFE Clean Energy Transition, Innovation Fund.

Useful links

https://ec.europa.eu/energy/sites/default/files/proposal-recast-energy-performance-buildings-directive.pdf

https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6683

https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en

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