

ENERGY TRANSITION 5 YEARS TO SUCCEED



European Energy Network

A voluntary network of national energy agencies at the heart of the energy transition

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A message from

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Chief Executive Officer of ADEME

Member of the Presidency of the E²R Network in 2024

European cooperation as a lever for achieving carbon neutrality by 2050

To meet the challenge of ecological transition, which is the challenge of the century, the European Union has committed to becoming the first carbon-neutral continent by 2050.

Against this backdrop of climate urgency and geopolitical instability, the European elections and the start of the new term of office highlight the need for stronger, coordinated joint action to achieve our climate objectives.

To respond to this urgent need of our fellow citizens, Europe needs to provide ambitious, concrete solutions, without ever forgetting the importance of their implementation at regional level.

While the framework for action decided in Brussels is important, it is in our regions that projects are launched, and succeed or fail.

Key actors in the transition, national energy agencies support Member States in ensuring the implementation of a range of services tailored to regional requirements. The strength of these agencies lies in their neutrality and their proximity to the regions, businesses and citizens they support with their expertise on energy issues.

With over 30 years' experience, the E²R Network - a voluntary network made up of 24 national energy agencies - works alongside Europe's elected representatives to help them implement the Green Deal at regional level. As a trusted partner of the European Parliament and the European Commission, we have prepared this leaflet that traces the progress that has been made at EU level. There are still many challenges to overcome, and this presentation sets out our solutions for supporting actors committed to the energy transition. It also provides an overview of the E²R Network's best practice database, with exemplary projects in key sectors of the economy (energy, buildings, transport, etc.) where major advances and changes are expected.

As elected members of the European Parliament and the European Commission, your role and responsibility in carrying forward a project for the future of the entire European Union represent a major challenge. To achieve this, the E²R Network is at your side to inspire your thinking and support your actions at the local and regional level.

EUROPEAN GREEN DEAL

The European Green Deal was launched by the European Commission in 2019 as the EU's new sustainable growth strategy. It aims to implement the EU's environmental transition and **make Europe the first climate-neutral continent by 2050.**

This political objective has been translated into European law by the "European Climate Law" (Regulation (EU) 2021/1119), in force since 29 July 2021. This law makes the EU's 2050 climate neutrality objective legally binding on the signatory states.

MAIN OBJECTIVES

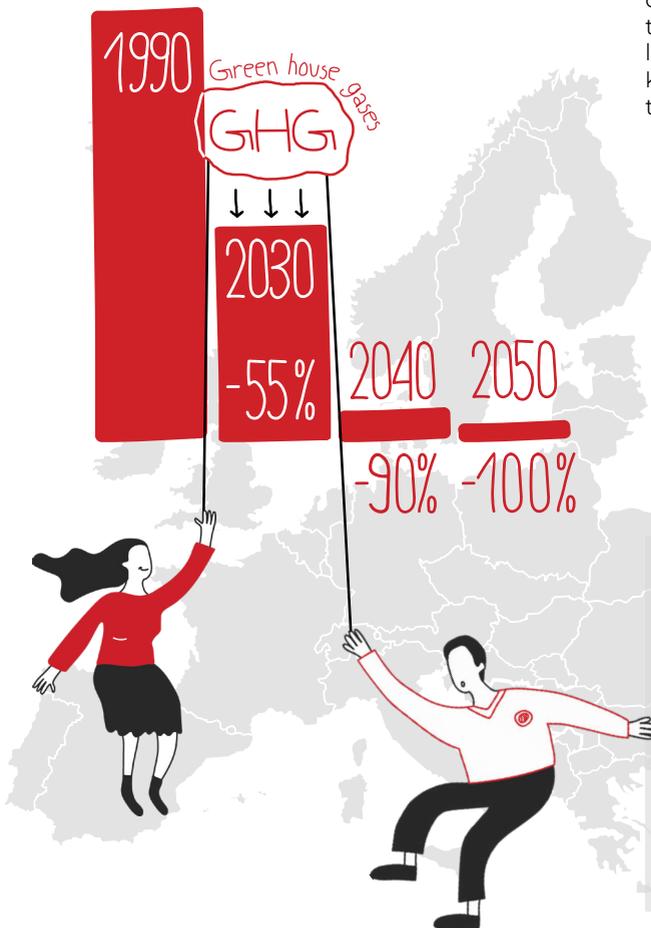
- Binding collective reduction in the EU's net GHG emissions of at least 55% by 2030 compared to 1990 levels
- Binding collective carbon neutrality objective (or zero net emissions) in the EU by 2050
- New target to reduce greenhouse gas emissions by 90% by 2040 (recommended by the Commission in February 2024)

In 2021, the European Commission unveiled a climate package called "Fit-for-55", which aims to transform the ambition of climate neutrality into concrete political action and to align key sectors of the economy (buildings, energy, transport, etc.) with the new targets.

To achieve its climate objectives, the EU must fully implement the "Fit-for-55" policy and legislative framework.

The coming term of office promises to be decisive in moving from objectives to achievements.

How can we make the right political choices for the EU to be the first carbon-neutral economy by 2050, while ensuring a just transition and supporting the competitiveness of its enterprises?



ENERGY



Decarbonising the European energy mix, which accounts for **over 75% of the EU's greenhouse gas emissions, is essential** if the EU is to achieve its climate objectives.

The European Green Deal is based on three principles to make the transition to clean energy:

1. Ensuring a **secure and affordable energy supply for the EU**
2. Creating a **fully integrated, interconnected and digitalised EU energy market**
3. Giving priority to **energy efficiency**, improving the **energy performance of buildings** and developing an energy sector based largely on **renewable sources**.

Legislation implemented between 2019 and 2024

No. 1 | Reform of the European electricity market + to stabilise energy prices within the EU, following.

No. 2 | Directive on the development of renewable energy in Europe + to **increase the share of renewable energy to 42.5% of the EU's overall energy consumption by 2030**, from the current 32%.

No. 3 | Gas package consisting of two texts:

- A directive + which organises the separation of hydrogen and electricity network operators
- A regulation + to facilitate the penetration of low-carbon and renewable gases in the European energy system, in particular hydrogen and biomethane.

No. 4 | Regulation on the reduction of the methane emissions in the energy sector + which requires a methane leakage detection programme.

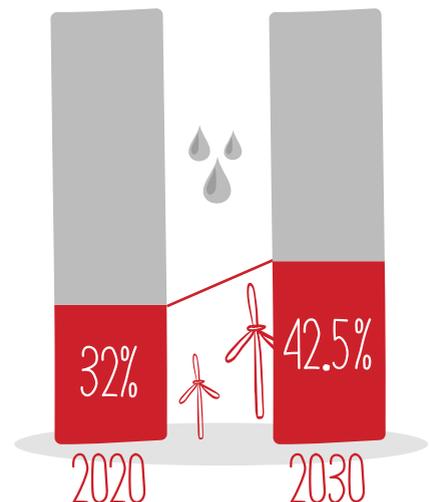
ENERGY EFFICIENCY

Reducing the EU's energy consumption is another imperative if the Green Deal's climate ambitions are to be achieved. The EU aims to **improve the energy efficiency of sectors with the greatest potential for energy savings, in particular industry, the public sector, transport, construction and the renovation of buildings**.

Legislation implemented between 2019 and 2024

No. 1 | Directive on Energy Efficiency +, which came into force on 10 October 2023 and provides a framework for:

- Reducing the EU's final energy consumption by 11.7% by 2030
- Ensuring that end-use energy savings represent an average of 1.49% of total consumption each year, rising gradually to 1.9% by the end of 2030, compared with 0.8% between 2021 and 2023.





INDUSTRIAL POLICY

On 15 December 2022, the EU adopted the [Green Deal Industrial Plan +](#), that aims to boost the competitiveness of Europe's net-zero emissions industry and accelerate the transition to climate neutrality.

Legislation implemented between 2019 and 2024

No. 1 | The [Net Zero Industry Act \(NZIA\) +](#), adopted on 6 February 2024, is an initiative that is part of the European Green Deal Industrial Plan which aims to strengthen the EU's net-zero technology products manufacturing ecosystem. The regulation stipulates that the EU must achieve a net-zero manufacturing capacity to cover at least **40% of its needs for strategic technological products** such as solar panels, wind turbines, batteries and heat

OBJECTIVES

1. Make the **regulatory environment predictable and simplified** for project organisers
2. **Accelerate access to finance** for industrial actors
3. Increase investment in **training and skills**
4. **Facilitate trade** that is open and fair.

pumps by 2030.

No. 2 | The [Critical Raw Materials Act +](#)

Adopted on 11 April 2024, the Critical Raw Materials Act comprises a set of measures designed **to guarantee the EU's access to critical raw materials**, which are essential to the decarbonisation of the economy, the digital transition and EU sovereignty.

The Critical Raw Material Act lists 34 critical and strategic raw materials and sets targets for 2030:

- 10% of raw materials consumed in the EU **should be extracted in Europe**
- 40% of the raw materials consumed in the EU should be processed in Europe
- 15% of the EU's annual consumption should come from recycling
- **No strategic raw material consumed should be more than 65%** dependent on a single non-EU supplier.



ENERGY PERFORMANCE OF BUILDINGS

The strategy « A Renovation Wave for Europe » ⁺, published in October 2020, aims to double the rate of renovation of residential and non-residential buildings in the EU over the next ten years and ensure that renovations lead to greater energy efficiency.

OBJECTIVES

1. Combating **energy poverty**
2. **Decarbonising heating and cooling systems**
3. **Renovation of public buildings.**

Legislation adopted between 2019 and 2024

No. 1 | Revision of the Energy Performance of Buildings Directive (EPBD) ⁺, adopted on 7 December 2023, which includes three main provisions:

- **Simplifying the granting of permits** for the deployment of solar energy installations in new, public and existing non-residential buildings
- **Minimum energy performance standards (MEPS)** designed to impose a minimum energy consumption threshold for buildings by 2033
- **Phasing out fossil fuels in buildings** so that national building renovation plans include a road-map for phasing out fossil fuel boilers by 2040.



ENERGY TRANSITION IN THE TRANSPORT SECTOR

The transport sector is responsible for a quarter of the EU's greenhouse gas emissions. And 70% of the sector's emissions are linked to road transport.

If the European Green Deal is to succeed, the transport system must be made sustainable and resilient in the face of crises, as outlined in the [Sustainable and Smart Mobility Strategy](#) + presented by the European Commission on 9 December 2020.

Legislation adopted between 2019 and 2024

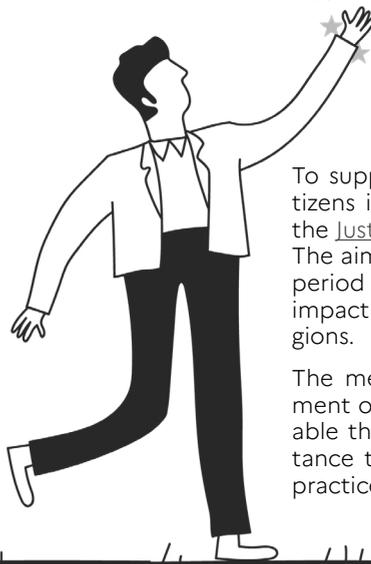
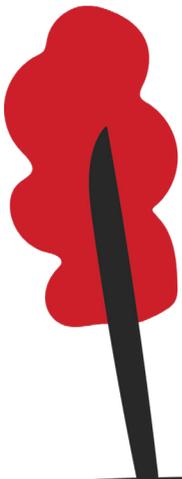
No. 1 | [Revision of the TEN-T](#) + : on 9 January 2024, the EU adopted the revised regulation on the trans-European transport network (TEN-T), **aimed at structuring the decarbonisation of the transport sector**. TEN-T encourages a modal shift from road transport and aviation to rail. The 424 major cities listed will also have to adopt binding sustainable urban mobility plans.

No. 2 | Decarbonisation of road transport: this regulation stipulates that all new [cars and commercial vehicles](#) + must be "net zero" by 2035, and a second regulation stipulates the gradual decarbonisation of new [heavy-duty vehicles](#) + by 2040.

No. 3 | [Regulation on the deployment of alternative fuels infrastructure](#) + : adopted on 13 September 2023, this regulation aims to ensure the **deployment of an infrastructure for alternative fuels**. It includes obligations for the gradual deployment of charging stations throughout the TEN-T network by 2028.



EUROPEAN JUST TRANSITION MECHANISM



To support the most vulnerable regions and citizens in the energy transition, the EU adopted the [Just Transition Mechanism](#) + on 24 June 2021. The aim is to mobilise nearly €55 billion over the period 2021-2027 to mitigate the socio-economic impact of the transition in the most affected regions.

The mechanism also provides for the development of a Just Transition Platform, which will enable the Commission to provide technical assistance to the regions concerned and share best practice between European regions.

FUNCTIONING

- ±25 billion euros allocated to the new **Just Transition Fund**
- ±15 billion for the **InvestEU** budget guarantee programme
- Up to €15 billion euros made available in the form of a **public sector loan facility**.

EUROPEAN ENERGY NETWORK (EⁿR) AND OPERATIONAL IMPLEMENTATION OF THE ENERGY TRANSITION

The **EⁿR Network** is a European network of national energy agencies in charge of national research, development, demonstration and dissemination programmes in the fields of energy efficiency, renewable energies and the fight against climate change.

Comprising 24 member agencies representing EU countries, Norway, the UK and Switzerland, the **EⁿR Network** strengthens cooperation between member agencies and other European actors (European Commission, European Investment Bank, etc.) on all issues relating to sustainable energy. A network at the forefront of Europe's efforts to improve energy efficiency, increase the use of renewable energies and mitigate the effects of climate change, as part of a just transition approach.

The EⁿR Network offers many advantages to its members, which it also makes available to other organisations, institutions and actors interested in sustainable energy at the European level:

- A first point of contact for dialogue with national energy agencies throughout Europe.
- Practical experience in implementing government policies.
- Deep understanding of market and consumer needs in our respective countries.
- Unique, impartial, expert perspective considering issues through the prism of all our members.
- Promotion of European leadership in energy transition on the global stage.

The EⁿR Network's activities are organised around 4 key areas:

- **Exchanging best practices** in implementing energy management policies within the EU and internationally.
- **Exchanging information and experience** to increase the effectiveness of members and the impact of their actions in terms of energy efficiency and the use of renewable energies.
- **Mobilising members' expertise** to assess and analyse the implementation of European energy management directives and policies.
- **Providing a pan-European platform** to support, assist and advise the European institutions on energy and climate issues.



9 working groups enable EⁿR Network members to discuss their respective issues and experiences and enhance their expertise in order to operate as effectively as possible at national and European level.



Buildings



Behaviour change



Transport



Industry and enterprises



Water-energy nexus



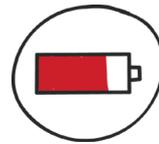
Renewable energy



Monitoring tools



Labelling & eco-design



Energy efficiency

Going further with the EⁿR Network database of best practice projects

The **EⁿR Network** has developed a database of best practice projects based on 30 years of experience, which it makes freely available to those who want to initiate change.

Energy efficiency, renewable energies, and actions to change behaviour in line with the European Green Deal: **more than 100 national or collaborative projects**, financed by European funds, are compiled and regularly updated in the database. Filters allow to search projects by country, agency or European project and make it easier to identify “model” projects. Dozens of factsheets also provide detailed information on the projects, with their main objectives, stakeholders involved, main results and the Green Deal theme to which they correspond.

The **EⁿR Network** offers you its expertise with a view to providing insights and helping present the solutions that can be implemented to accelerate the energy transition in Europe and beyond.

Best practice factsheets





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Further information

EⁿR Network

→ <https://enr-network.org/>

Best practice database

→ <https://enr-network.org/library/>

About us

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A network at the forefront of Europe's efforts to improve energy efficiency, increase the use of renewable energies and mitigate the effects of climate change, as part of a just transition approach.

Against the backdrop of climate urgency and geopolitical instability, the European elections and the start of the new term of office highlight the need for stronger, coordinated joint action to achieve our climate objectives.

Because the energy transition is eagerly awaited by Europe's citizens, the EⁿR Network has compiled the "Energy transition: 5 years to succeed" booklet aiming to highlight the progress made at EU level and the many challenges still to be met, as well as to share solutions to support the newly elected members of the European Commission and the European Parliament in implementing the European Green Deal at the territorial level.



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