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Hemisfério Didático
"Empower Your Mind, Transform Your Future"



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**Your
Response**
KA210

SIMPLIFIED GUIDE



EU ECOLOGICAL
TARGETS AND PARTNER
COUNTRIES

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Partners: RRINOVA OÜ (EE), ZDRAVI GRAD (HR), Hemisfério Didático Unipessoal Lda (PT)



Coordinators: Alberto Teixeira, Carolina Carvalho, Patrícia Cordeiro

Authors: Anderson Gabriel, Catarina Silva, Matilde Gomes, Rajesh Pathak, Riya Raj, Victorya Mattoso, Željka Raguž, Zorana Skare

Index

1.WHAT IS THE EUROPEAN GREEN DEAL?	5
2.THE FUNDAMENTAL GOALS FOR 2030 AND 2050: CARBON NEUTRALITY	7
2.1. The goals: where are we heading?	7
2.2. The three pillars of change	7
2.3. The "just transition": no one gets left behind	7
2.4. Europe and the world (partner countries)	8
3.THE PILLARS OF TRANSFORMATION: CLEAN AND SUSTAINABLE INDUSTRY	9
3.1. Clean, secure, and independent energy	9
3.2. Industry for a circular economy	9
3.3. Tech and raw materials	9
3.4. Economy & culture: making change look good	10
4.BUILDING RENOVATING AND SUSTAINABLE MOBILITY	12
4.1. "Renovation wave": buildings that breathe	12
4.2. Mobility: the green lane to 2050	12
4.3. Impact on society and health	12
4.4. Practical guide: 5 missions to save energy at home	13
5.FROM FARM TO FORK AND BIODIVERSITY PROTECTION	14
5.1. The "farm to fork" strategy	14
5.2. Protecting biodiversity: our natural shield	15
5.3. Why should you care?	15
5.4. The missing link: why pollinators are vips?	15
5.5. Green cities: nature at your doorstep	16
5.6. Learning challenge: your food footprint	16
6.ADJUSTMENT MECHANISMS AND FINANCING OF THE TRANSITION	17
6.1. The carbon border adjustment mechanism (cbam)	17
6.2. Just transition mechanism: no one left behind	17
6.3. Social climate fund: direct support for families	17
6.4. Invest EU and sustainable finance	18
7.THE EU AND PARTNER COUNTRIES: A GLOBAL PARTNERSHIP	19
7.1. EU GREEN DEAL: FRAMEWORK AND RELEVANCE FOR PORTUGAL	19
7.2. EU GREEN DEAL: FRAMEWORK AND RELEVANCE FOR CROATIA	21

7.3. EU GREEN DEAL: FRAMEWORK AND RELEVANCE FOR ESTONIA	23
8.EUROPE OF A THOUSAND SOLUTIONS	25
9.PRACTICAL GUIDE FOR YOUNG PEOPLE, CITIZENS AND GLOSSARY	26
9.1. Knowledge challenge: the planet's rescue plan	26
10.CONCLUDING REMARKS: A UNITED VISION FOR A SUSTAINABLE FUTURE	29
11.REFERENCES	30



GOOD PRACTICES

The YOUR RESPONSE project presents a set of good practices grounded in the European Green Deal. Through waste management and responsible purchasing strategies, we offer guidelines so individuals can apply sustainability in their daily lives and work routines.



The YOUR RESPONSE initiatives aim to directly support the Sustainable Development Goals (SDGs) fundamental to the implementation of the Green Deal:

**Your
Response**



1. WHAT IS THE EUROPEAN GREEN DEAL?

Launched at the end of 2019 as the main priority of the European Commission, the European Green Deal goes far beyond a simple environmental policy. It is a new growth strategy designed to transform the economy of the European Union, making it modern, sustainable, and highly competitive.

Its four main pillars are:

- **2050 Goal (Climate Neutrality):** The central objective is to make Europe the first climate-neutral continent (net-zero emissions) by 2050. The plan ensures that economic growth is no longer dependent on the uncontrolled exploitation of natural resources.
- **Focus on People ("Leave no one behind"):** The ecological transition will only work if it is fair and inclusive. The pact recognises that this paradigm shift will have a heavy impact on certain industrial sectors and regions, and it commits to protecting these populations.
- **The Just Transition Mechanism:** To manage this massive socio-economic change, the EU provides financial support focused on the reskilling of workers in vulnerable industries and direct investment in the most affected regions, stimulating new sustainable businesses.
- **Long-Term Resilience:** The project aims to protect citizens against future environmental risks through drastic reductions in pollution and the active restoration of biodiversity, ensuring a safe and prosperous future for the next generations.



THE EUROPEAN **GREEN DEAL**

Aiming for a **CARBON-NEUTRAL** Europe by 2050



Figure 1 - Main Objectives and Pillars of the European Green Deal - Note. Infographic illustrating the carbon neutrality targets and the just transition pillars of the European Green Deal. Image generated by ChatGPT (OpenAI).

2. THE FUNDAMENTAL GOALS FOR 2030 AND 2050: CARBON NEUTRALITY

Imagine the European Union (EU) has decided to give its economic operating system a total "**update**". The **European Green Deal** is this new roadmap designed to turn Europe into the first climate-neutral continent (European Commission, 2019).

It's not just about planting trees; it's a growth strategy to make our economy modern, competitive, and resource efficient.

2.1. The goals: where are we heading?

The EU has set clear targets and, more importantly, turned them into law so they don't just stay on paper.

- **2030 Goal (Fit for 55):** Reduce net greenhouse gas emissions by at least **55%** compared to 1990 levels.
- **2040 Goal:** The EU has established binding targets for 2030 and 2050; furthermore, the Commission has proposed an intermediate 2040 milestone to reduce the EU's net greenhouse gas (GHG) emissions by 90% relative to 1990 levels.
- **2050 Goal (Climate Neutrality):** Hit "**net zero**", where Europe doesn't emit more than the planet can naturally absorb (European Commission, 2019).

2.2. The three pillars of change

Why are we doing this now? There are three main reasons:

- **Energy Independence:** Boosting the use of renewable energy and cutting our reliance on unreliable partners and fossil fuels.
- **Innovation and Jobs:** Driving growth through clean technologies, creating new roles in the so-called "**Green Economy**" (KPMG International, 2021).
- **Public Health:** Cutting pollution to prevent premature deaths and illnesses (like strokes or diabetes) caused by poor air and water quality.

2.3. The "just transition": no one gets left behind

Changing the economy costs money and can affect traditional jobs (like those in the coal industry). To ensure this shift is fair, the EU has created specific support:

- **Just Transition Fund:** Helping regions and workers develop new skills so they can thrive in clean industries (European Commission, 2019).
- **Social Climate Fund:** Directly supporting the most vulnerable citizens by funding home insulation or providing access to cheaper, cleaner transport.

2.4. Europe and the world (partner countries)

The Green Deal doesn't stop at Europe's borders. Through climate diplomacy, the EU wants to influence global partners via:

- **CBAM (Carbon Border Adjustment Mechanism):** A tool that ensures imported products (like steel or cement) pay for the carbon they emit, preventing companies from moving to countries with weaker environmental rules (KPMG International, 2021).
- **Global Gateway:** An initiative to support partner countries in their own green and digital transitions (European Union, 2021.).



Figure 2 - Practical Questions About the Impact of a Green Future on Daily Life - Note. Infographic presenting key questions about the impact of the ecological transition on everyday life, covering future careers, mobility, housing, and consumption, with projected timeframes for 2030 and 2050. Image generated by ChatGPT (OpenAI).

3. THE PILLARS OF TRANSFORMATION: CLEAN AND SUSTAINABLE INDUSTRY

If the Green Deal were a car, **Energy** and **Industry** would be the engine and the chassis. Currently, the energy sector is responsible for over 75% of greenhouse gas emissions in the EU. To hit our 2030 and 2050 targets, we need to radically change how we power our lives and make the things we use (European Commission, 2019).

3.1. Clean, secure, and independent energy

The goal is a power system that doesn't rely on fossil fuels and can stand up to global crises.

- **REPowerEU:** After the invasion of Ukraine, Europe fast-tracked plans to ditch fossil fuels from unreliable partners.
- **The Renewables Explosion:** Since 2019, solar power in the EU has more than doubled. In 2023, for the first time ever, we produced more electricity from wind than from gas!
- **Hydrogen Power:** For "heavy-duty" sectors where batteries aren't enough (like giant ships or steel factories), the EU is betting on **green hydrogen**.
- **Efficiency First:** It's not just about clean energy; it's about using less. This means insulating buildings and using tech that sips electricity instead of gulping it.

3.2. Industry for a circular economy

European industry needs to be "green and mean" (competitive but sustainable), ditching the old "**buy, use, bin it**" model.

- **Modernisation:** Traditional sectors like steel and cement are getting a "tech makeover" to become carbon neutral.
- **Right to Repair:** New rules mean companies must design products that last longer and are easy to fix. No more destroying unsold clothes or shoes!
- **Sustainable Batteries:** Future batteries will be easier to replace and recycle, with strict rules to shrink their carbon footprint.

3.3. Tech and raw materials

To build green tech, Europe needs to secure its own "ingredients" and production power.

- **Net-Zero Industry Act (NZIA):** A law to cut the red tape and build more clean-tech factories on European soil.
- **Critical Raw Materials Act (CRMA):** Ensuring we get materials like lithium sustainably, so we aren't dependent on others.
- **2030 Goals:** By the end of the decade, the EU aims to extract 10%, process 40%, and recycle 25% of the strategic materials it consumes (TraceX Technologies, 2025).

3.4. Economy & culture: making change look good

The EU is turning environmental costs into a driver for social and aesthetic change.

3.4.1. The polluter pays principle

The logic is simple: polluting shouldn't be free. The **Emissions Trading System (ETS)** is the main tool ensuring companies pay for the carbon they pump out.

- **Cash Flow:** Since 2005, this has generated over **€200 billion** for EU countries (KPMG International, 2021).
- **Economic Fairness:** The goal is to make sure the "pollution bill" is picked up by the polluters, not the taxpayers.
- **Expansion:** The system is growing to cover road transport and heating, nudging everyone towards cleaner choices.

3.4.2. Reinvesting in society: the social climate fund

The money paid by big polluters doesn't just vanish; it goes back to the people.

- **Direct Support:** This fund helps vulnerable families pay for energy-saving home upgrades and clean transport.
- **Innovation:** A slice of the pie goes to the **Innovation Fund**, which back rolls cutting-edge tech to de-carbonise industry.

3.4.3. New European Bauhaus: the soul of the deal

The green transition isn't just about wires and pipes; it has to be beautiful.

- **Culture & Design:** We're bringing in architects and artists to make our public spaces sustainable, inclusive, and stunning.
- **Active Community:** With over 1341 partner organisations, this movement is already reaching millions (European Commission, 2023).

- **Local Projects:** Large-scale "makeovers" are proving we can live better while respecting nature.

3.4.4. Real health benefits

Cleaning up isn't just about hitting targets; it's about saving lives.

- **Disease Prevention:** Cleaner air and water rules aim to slash premature deaths and cases of strokes, cancer, or diabetes.
- **Zero Pollution:** The plan is to modernise industrial standards so that **public health always comes first.**



Figure 3 - *The Pillars of Transformation: Clean and Sustainable Industry* - Note. This diagram illustrates the four interconnected pillars of the European Green Deal's industrial strategy: clean energy, circular economy, technology and raw materials, and economy and culture. All pillars converge around the Green Deal as the central driving force towards a clean, sustainable, and competitive European industry by 2050. Image generated by Gemini (Google).

4. BUILDING RENOVATING AND SUSTAINABLE MOBILITY

4.1. "Renovation wave": buildings that breathe

The buildings where we live and work are currently responsible for a massive chunk of Europe's energy consumption. Transforming them isn't just about aesthetics; it's about economic and environmental survival.

- **Thermal Efficiency:** The big goal is to renovate millions of buildings to improve insulation, ensuring homes stay warm in winter and cool in summer without wasting power.
- **Fighting:** The Social Climate Fund helps families in need make their homes more energy-efficient, such as through better insulation, reducing the monthly burden of electricity and gas bills.
- **Health and Well-being:** A well-renovated, insulated home drastically reduces damp and improves indoor air quality, which helps prevent respiratory and cardiovascular diseases.

4.2. Mobility: the green lane to 2050

The way we get around has to change radically, with the goal of cutting transport emissions by 90% by 2050.

- **The End of Fossil Fuels:** From 2035, all new cars registered in the EU must be zero-emission, driving the final shift to electric or hydrogen vehicles (KPMG International, 2021).
- **Infrastructure for All:** Massive investments are planned for extensive new networks of cycle lanes and the major expansion of green public transport across Europe.
- **Charging Without Borders:** To make long trips viable, the EU plans to install electric charging points every 60 km along main roads (KPMG International, 2021).

4.3. Impact on society and health

This transformation doesn't just help the planet; it has a direct, positive impact on our quality of life.

- **Less Pollution, Better Health:** Reducing internal combustion engines and using clean heating will help prevent premature deaths and serious illnesses like cancer, strokes, or diabetes caused by poor air quality.

- **New Careers:** The need to renovate cities and maintain modern transport is creating thousands of new jobs in the so-called **Green Economy**.
- **Smart Cities:** Using digital tech will help manage traffic and energy use in buildings better, making cities more pleasant and less noisy places to live.

4.4. Practical guide: 5 missions to save energy at home

Being efficient doesn't mean sitting in the dark or being cold. It means using energy intelligently, without waste. Here are five simple missions you can start today to play your part in the energy transition (and save some money!).

4.4.1. The "one degree" rule (heating)

Heating is often the biggest "energy-hungry" part of a home.

- **The Mission:** In winter, try lowering the thermostat by just **1°C**. It sounds like a little, but it can cut your heating bill by about 7%. If you're chilly, try putting on a warmer jumper before turning up the heat.

4.4.2. Hunt the "energy vampires" (standby)

Many devices keep sucking up electricity even when they look turned off, just by being plugged in (this is called "phantom" or "standby" consumption).

- **The Mission:** Unplug phone chargers, computers, gaming consoles, and TVs when you're not using them. **Pro tip:** Use a power strip with a master switch to turn off multiple devices at once at night.

4.4.3. Wash cold and always full

Heating water uses a huge amount of energy in washing machines and dishwashers.

- **The Mission:** Only run the machines when they are completely full. Stick to lower temperature cycles (**30°C or 40°C**) or "Eco" modes. Most everyday clothes get perfectly clean without needing boiling water.

4.4.4. Lighting: leds and the "finger on the switch"

This one is a classic, but it's still essential.

- **The Mission:** If you still have old incandescent or halogen bulbs, swapping them for **LEDs** is the best investment you can make (they use up to 80% less power!). And

the golden rule: if you leave the room, turn the light off. Make the most of natural light during the day.

4.4.5. Use your curtains as a shield

Windows are a critical point for temperature loss. You can use curtains and blinds strategically.

- **The Mission:** * **In Winter:** Open the curtains during the day to let the sun warm the house for "free" and close them as soon as it gets dark to trap that heat inside.
 - **In Summer:** Close blinds or curtains during the hottest parts of the day to stop the house from overheating, saving on fans or air conditioning.

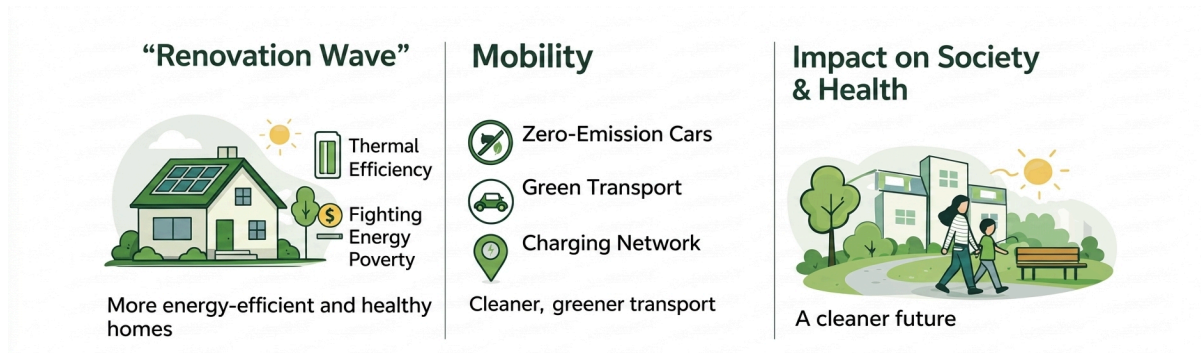


Figure 4 - Key Action Areas of the European Green Deal: Housing, Mobility, and Health - Note. Infographic detailing three specific action areas of the European Green Deal: the "Renovation Wave" for energy-efficient homes and tackling energy poverty, the shift towards zero-emission mobility and green transport networks, and the overall positive impact on society and public health. Image generated by ChatGPT (OpenAI).

5. FROM FARM TO FORK AND BIODIVERSITY PROTECTION

Sustainability isn't just about solar panels and electric cars. For Europe to be truly "green", we have to look at the ecosystems surrounding us and what we put on the table every day. These two strategies are the guardians of our health and the health of the Earth.

5.1. The "farm to fork" strategy

Our current food system needs a new "recipe". The goal is to make food healthy, fair, and eco-friendly:

- Food with less "Chemistry": The target is to reduce the use of chemical pesticides and associated risks by 50% by 2030, protecting both the soil and our health (European Commission, 2019).
- War on Waste: Currently, we throw away tonnes of perfectly good food. The EU is setting mandatory targets for countries and companies to reduce food waste throughout the entire supply chain.
- Respect for Animals: Stricter rules for animal welfare are being created, ensuring that the production of meat and dairy is more ethical.
- Clear Labels: We want it to be easy to choose what's best for us, with clear information about the origin and environmental impact of products.

5.2. Protecting biodiversity: our natural shield

Nature is our best defence against climate change, but it's under pressure. The 2030 biodiversity strategy focuses on "bringing nature back":

- Protected Areas: The goal is to protect at least 30% of land and 30% of seas in Europe, creating ecological corridors so that wildlife can thrive (European Commission, 2019).
- Restoring Ecosystems: It's not enough to protect what's left; we must recover what has been destroyed, such as forests, wetlands, and agricultural soils.
- Protecting Pollinators: Without bees, there is no food. The EU is working to halt the decline of pollinating insects, which are essential for the balance of life.
- Responsible Consumption: New laws prevent products that contribute to global deforestation (like certain types of coffee, soy, or timber) from entering the European market.

5.3. Why should you care?

Protected nature and clean food mean purer air, crystal-clear water, and fewer diseases. By following these targets, we are ensuring that future generations—yours and those to come—have access to a vibrant planet and quality food.

5.4. The missing link: why pollinators are vips?

There is no "Farm to Fork" strategy without "Biodiversity Protection". Bees, butterflies, and other insects are the invisible workers who guarantee our food.

- Food Security: Without pollinators, most of the fruit, vegetables, and nuts we love would simply disappear.
- Green Corridors: Europe wants to create zones where these insects can travel safely, linking urban gardens to forests and agricultural fields.
- Nature Restoration Law: This is a landmark law that requires countries to recover degraded ecosystems. It's not just about protecting what's good; it's about "healing" what is sick.

5.5. Green cities: nature at your doorstep

Biodiversity protection doesn't just happen in distant forests; it must happen where we live.

- Greening the Concrete: The EU encourages cities to create "green roofs" and vertical gardens. This helps lower city temperatures in the summer and helps absorb rainwater.
- Stop Imported Deforestation: Europe has decided it doesn't want to be an accomplice to forest destruction in other continents. Therefore, products like cocoa or soy can only enter if they can prove no forests were destroyed to produce them.

5.6. Learning challenge: your food footprint

Think about what you ate today. Can you identify one ingredient that took a short journey (local production) and another that might have come from far away?

Did you know? A plate of local, organic food has a drastically smaller carbon footprint because it avoids long-distance transport and the intensive production of chemical fertilisers.



Figure 5 - Ecosystem Nurturing: The Farm to Fork Strategy and Biodiversity Protection - Note. Infographic outlining the dual approach to nurturing European ecosystems: the "Farm to Fork"

strategy, which focuses on sustainable food systems, reducing pesticide use by 50%, and improving animal welfare; alongside the biodiversity protection strategy, which aims to designate 30% of land as protected areas, halt deforestation, and develop greener cities. Image generated by ChatGPT (OpenAI).

6. ADJUSTMENT MECHANISMS AND FINANCING OF THE TRANSITION

Transitioning an entire continent to carbon neutrality by 2050 requires a colossal investment. How is this capital distributed, and how does the EU prevent emissions from simply being outsourced? The following mechanisms underpin the funding strategy:

6.1. The carbon border adjustment mechanism (cbam)

Imagine a European facility invests heavily to decarbonise, while a non-EU competitor produces the same goods cheaply with high emissions. To level the playing field, the EU relies on CBAM.

- **The Imported Carbon Premium:** CBAM ensures that carbon-intensive imports (such as steel, cement, or electricity) are subject to a carbon price equivalent to that paid by domestic European industries (KPMG International, 2021).
- **Preventing 'Carbon Leakage':** The primary objective is to deter companies from relocating production to jurisdictions with lenient environmental regulations. This protects European industry whilst actively incentivising global partners to adopt greener practices (European Commission, 2019).

6.2. Just transition mechanism: no one left behind

Certain European regions remain heavily reliant on fossil fuels and heavy industry, making their transition significantly more complex and costly.

- **The Just Transition Fund:** This fund allocates billions of euros to assist these specific regions in creating new green jobs, supporting worker retraining programmes, and investing in clean energy infrastructure (European Commission, 2019).
- **European Solidarity:** This framework demonstrates that the transition is a social endeavour as much as an ecological one, ensuring the most affected demographics receive the targeted support necessary to modernise.

6.3. Social climate fund: direct support for families

Stricter environmental regulations and carbon pricing may lead to short-term increases in heating and transport costs for end consumers.

- **Combating Energy Poverty:** Established specifically to support the most vulnerable households, micro-enterprises, and transport users, this fund provides direct financial assistance for home thermal insulation and the adoption of zero-emission mobility (TraceX Technologies, 2025).
- **Climate Justice:** Ultimately, the fund guarantees that the financial burden of the green transition does not disproportionately impact those with the fewest resources (TraceX Technologies, 2025).

6.4. Invest EU and sustainable finance

6.4.1. Mobilising sustainable finance

Europe is actively mobilising the private sector to meet its climate ambitions. Through the InvestEU programme, the European Union provides crucial guarantees, encouraging banks and investors to direct capital towards sustainable and forward-looking projects (European Commission, 2019).

- **The EU Taxonomy:** Acting as a definitive "dictionary", this comprehensive classification system defines exactly what constitutes a green investment. It establishes clear criteria to prevent 'greenwashing'—ensuring that investments marketed as ecological deliver genuine environmental benefits (KPMG International, 2021).

Key Milestone: The European Union's objective is to mobilise at least €1 trillion in sustainable investments over this decade. This unprecedented financial commitment is designed to transform the economy, ensuring that economic growth is fundamentally decoupled from planetary degradation (European Commission, 2019).

6.4.2. The transition framework

For systemic change to occur, the EU utilises primary mechanisms to ensure the transition is fair, competitive, and inclusive:

- **The Industrial Shield (CBAM):** The Carbon Border Adjustment Mechanism ensures that imported, carbon-intensive products are subject to the same "carbon price" as

those manufactured within the EU. This prevents 'carbon leakage' and ensures fair competition for European industries (KPMG International, 2021).

- The Helping Hand (Just Transition Mechanism): This fund provides targeted support to regions and communities that are still heavily reliant on fossil fuels, such as coal. It funds retraining and new economic opportunities, ensuring that no one is left behind in the professional landscape (European Commission, 2019).
- Family Protection (Social Climate Fund): This initiative offers direct financial assistance to vulnerable citizens to combat energy poverty. It helps households insulate their homes, transition to clean transport, and manage the immediate costs of the green transition (TraceX Technologies, 2025).

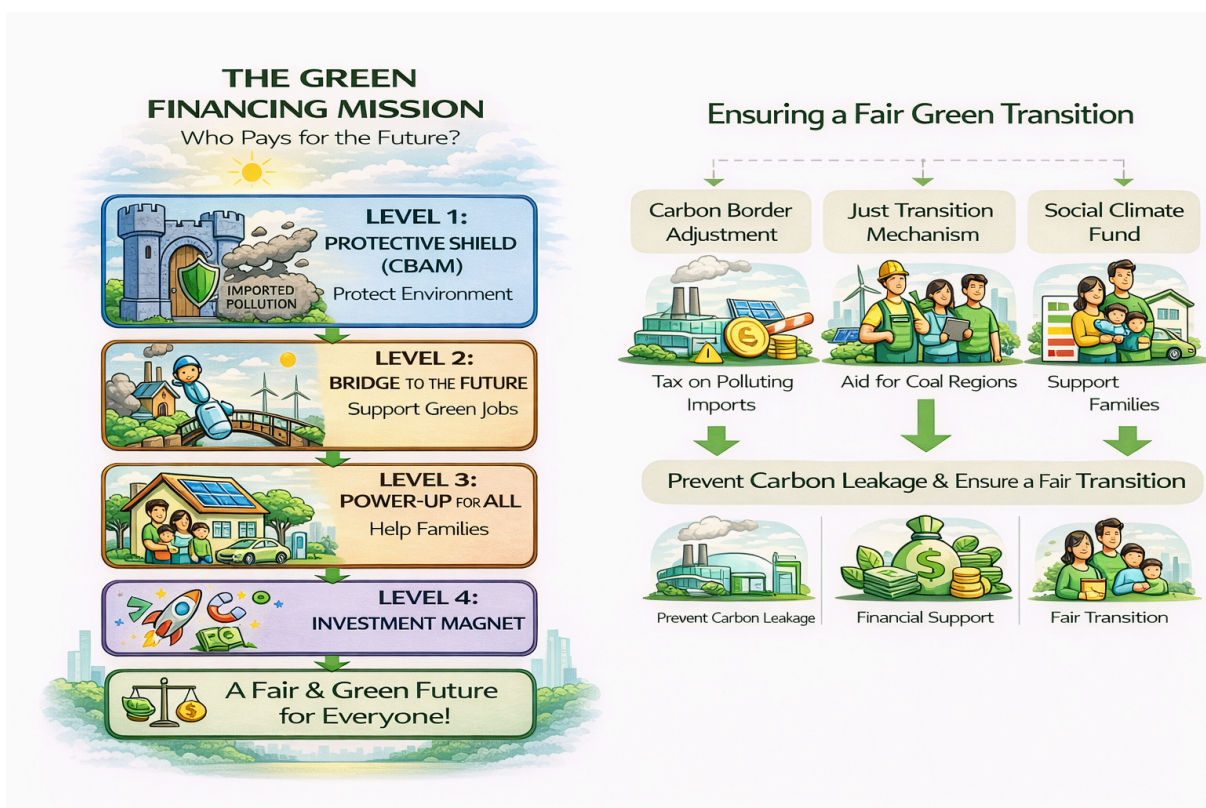


Figure 6 - The Green Financing Mission and Mechanisms for a Fair Transition - Note. Infographic outlining the financial strategies of the European Green Deal. It details a multi-level approach including the Carbon Border Adjustment Mechanism (CBAM) to prevent carbon leakage, the Just Transition Mechanism to aid coal-dependent regions, and the Social Climate Fund to support families, ensuring a fair and equitable transition. Image generated by ChatGPT (OpenAI).

7. THE EU AND PARTNER COUNTRIES: A GLOBAL PARTNERSHIP

7.1. EU GREEN DEAL: FRAMEWORK AND RELEVANCE FOR PORTUGAL

Portugal's climate strategy is not just an isolated plan; it is the engine that connects European goals to the reality of our cities, industries, and schools. As Portuguese citizens, we are at the heart of this transformation, which combines technological innovation with the protection of our natural heritage.

7.1.1. National environmental practices: from theory to action

Portugal has implemented ambitious instruments, such as the **Roadmap for Carbon Neutrality 2050 (RNC2050)** and the **National Energy and Climate Plan (PNEC 2030)**, which dictate the rules for the next decade.

- **Investment in Circular Bioeconomy:** Portugal stands out in nature-based research. A key example is the use of forest by-products — such as **eucalyptus, walnut, and chestnut bark** — for water treatment, turning what was once waste into a valuable resource for a carbon neutrality.
- **Strategic Waste Management:** In line with EU resolutions, the country is focused on a drastic reduction in plastic use. The **Action Plan for Circular Economy (PAEC)** promotes "zero waste" industrial processes, aiming to increase the national circularity rate, which currently stands at approximately **2.5%**.
- **Energy Revolution:** Portugal is a European leader in renewables. Under the revised PNEC 2030, the country aims for a **51% share of renewables** in gross final energy consumption and a staggering **93% share in electricity production** by 2030.
- **Digital Innovation (Re-AI):** Through projects like **Re-AI**, Portugal leverages artificial intelligence to optimise resource management and educate citizens on energy efficiency, aligning digital growth with environmental goals.

7.1.2. Linking national goals to the European green deal

Portugal's national pacts act as the operational arm of the European Green Deal, sharing its core principles of sustainability and fairness:

- **Just Transition in Practice:** Portugal was among the first to shut down its coal-fired power plants (Sines and Pego). Supported by the **Just Transition Mechanism**, the

country ensures that affected workers receive training for the **thousands of new green jobs** being created.

- **Alignment with the Renovation Wave:** Through the **Recovery and Resilience Plan (RRP)**, Portugal has allocated **41.2% of its €22.2 billion fund** to climate objectives. This includes **€610 million for energy efficiency** in buildings to combat energy poverty and improve thermal comfort (Mission Structure Recover Portugal, 2023)
- **Education and Active Citizenship:** To ensure an inclusive transition, organisations like **Hemisfério Didático** work to empower young people, transforming high-level targets from Brussels into local social and environmental innovation projects.
- **Preservation of National Biodiversity:** Portugal protects vital marine and terrestrial areas, aligning with the EU target to protect **30% of nature by 2030**. This strategy ensures our ecosystems act as natural shields against climate change, aiming for a carbon sequestration capacity of **13 million tonnes**.



Figure 7 - Portugal's National Strategies within the European Green Deal - Note. Infographic illustrating how Portugal's national strategies align with a sustainable European future. It highlights four key areas: developing a circular bioeconomy using forest by-products, achieving 51% renewable energy, ensuring a just transition by ending coal use and creating new green jobs, and preserving biodiversity by protecting 30% of natural habitats. Image generated by ChatGPT (OpenAI).

7.2. EU GREEN DEAL: FRAMEWORK AND RELEVANCE FOR CROATIA

Croatia has positioned itself as a proactive partner in the **European Green Deal**, establishing a comprehensive framework to transition into a carbon-neutral, resource-efficient, and inclusive economy by 2050. This roadmap integrates national priorities with European best practices to ensure long-term sustainability and competitiveness.

7.2.1. The strategic foundation: NRS 2030

The cornerstone of this transition is the **National Development Strategy 2030 (NRS 2030)**, adopted in early 2021.

- **Visionary Goals:** The strategy outlines a path for Croatia to become a competitive and sustainable nation by the end of the decade.
- **The "Twin Transition":** A primary focus is placed on the simultaneous **Green and Digital Transition**, ensuring that economic growth is decoupled from resource use.

7.2.2. Key pillars of the green transition

The document identifies four critical areas where Croatia is implementing significant reforms and investments:

- **Energy Transition:** A steadfast commitment to increasing the share of renewable energy sources and achieving substantial reductions in greenhouse gas emissions.
- **Green Infrastructure:** Focus on enhancing the energy efficiency of the building stock and modernising national waste and water management systems.
- **Sustainable Mobility:** Massive investment in the modernisation of the railway network, the introduction of electric buses, and the expansion of charging infrastructure for zero-emission vehicles.
- **Sustainable Agriculture:** Aligning with the "Farm to Fork" strategy, Croatia is promoting organic farming and the robust protection of its rich biodiversity.

7.2.3. Financing the future

To turn these strategic goals into reality, Croatia is leveraging significant European and national financial instruments:

- **Recovery and Resilience Plan (RRP):** This plan involves a total investment of approximately **€10 billion**, with a significant **39%** of the budget dedicated specifically to climate-related objectives.
- **Green Grants:** For the year 2025 alone, Croatia has earmarked **€652 million** in grants to support renewable energy projects and industrial energy efficiency.

7.2.4. A paradigm shift in tourism

Recognising that tourism is a vital part of its economy, Croatia has developed a **Sustainable Tourism Strategy 2030**.

- **Quality Over Quantity:** The strategy marks a shift away from "mass tourism" towards a model that prioritises environmental preservation, local community resilience, and year-round sustainability.



Figure 8 - Croatia's Pathway to a Carbon-Neutral and Sustainable Future by 2050 - Note. Infographic outlining Croatia's national strategies to align with the EU Green Deal by 2050. The four key areas of focus are the energy transition through increased renewables, the development of green infrastructure for buildings and waste management, sustainable mobility featuring modern trains and e-buses, and sustainable agriculture emphasising organic farming and biodiversity. Image generated by ChatGPT (OpenAI).

7.3. EU GREEN DEAL: FRAMEWORK AND RELEVANCE FOR ESTONIA

7.3.1. Overview and key targets

Estonia is a Baltic state with 1.3 million people facing the unique challenge of transforming a carbon-intensive energy system historically built on oil shale.

- **Primary Goal:** Achieve climate neutrality by 2050.
- **2030 Interim Target:** Reduce emissions to approximately 10–12 megatonnes of carbon dioxide equivalent (MtCO₂-eq).
- **Current Progress:** As of 2022, total greenhouse gas (GHG) emissions were approximately 14.4 MtCO₂-eq, representing a 60% reduction from the 1990 baseline of 36.9 MtCO₂-eq.

7.3.2. Sectoral transition strategies

7.3.2.1. Energy and industry

Estonia is transitioning from oil shale, which once supplied over 70% of its electricity, toward renewable sources.

- **Developments:** Gradual closure of oil-shale plants with a massive expansion in onshore/offshore wind and solar deployment.
- **Timeline:** Policy discussions aim to end oil-shale electricity production by approximately 2035.
- **Barriers:** Permitting delays, grid capacity constraints, and energy security concerns exacerbated by the war in Ukraine.

7.3.2.2. Just transition: Ida-Viru County

The transition is most sensitive in Ida-Viru County, where the oil-shale industry is a major employer and regional GDP contributor.

- **Support:** Utilisation of the EU Just Transition Fund for reskilling programs, SME investment incentives, and brownfield remediation to avoid structural unemployment.

7.3.2.3. Transport and buildings

- **Transport:** This remains the weakest sector for decarbonisation, with a rising emissions trend and slow electric vehicle (EV) uptake compared to Nordic

neighbours. Strategies include EV subsidies and integration into the Rail Baltica project.

- **Buildings:** Focus on energy efficiency through renovation grants, heat pump incentives, and public building retrofits.

7.3.2.4. Forestry and LULUCF

Estonia's vast forests serve as a major carbon sink. However, there is ongoing tension between the economically vital timber sector and the need for biodiversity protection and carbon sink preservation.

7.3.2.5. Financing and governance

- **Funding:** Estonia allocated roughly 59% of its Recovery and Resilience Facility (RRF) funds to green objectives. Other instruments include the Just Transition Fund (JTF), Cohesion Funds, and InvestEU.
- **Governance:** The country benefits from advanced digital governance and high EU policy compliance, though political sensitivity regarding oil shale remains a factor.



Figure 9 - Estonia's Pathway to Climate Neutrality by 2050 - Note. Infographic outlining Estonia's national strategies to align with the EU Green Deal by 2050. Key areas of focus include the energy transition from oil shale to wind and solar power, just transition and reskilling programmes in Ida-Viru County, the protection of forestry and carbon sinks, and the promotion of electric vehicles and energy efficiency in transport and buildings. Image generated by ChatGPT (OpenAI).

8. EUROPE OF A THOUSAND SOLUTIONS

By journeying through the strategies of Portugal, Croatia, and Estonia, we have discovered that there is no single path to sustainability, but rather multiple trails converging on the same destination: a climate-neutral continent by 2050.

This "Green Trio" demonstrates the strength of European diversity:

- **Portugal** leads with the power of the elements, turning wind and water into clean energy for industry.
- **Croatia** protects its natural treasure, proving that tourism and the economy can thrive without destroying the landscape.
- **Estonia** uses digital innovation to solve its toughest challenge, moving away from fossil fuel industry through technology and education.

The final lesson of this chapter is clear: whether through solar panels in the Mediterranean, dams in the Atlantic, or computer code in the Baltic, the European Green Deal is the common language uniting these nations. The challenge now is to ensure that these local transitions gain global scale, inspiring every citizen to play their part.



Figure 10 - *Europe of a Thousand Solutions: Diverse National Paths to Climate Neutrality* - Note. Infographic illustrating the diverse national strategies contributing to a climate-neutral Europe by 2050. It highlights Portugal's focus on harnessing wind and water for clean energy, Croatia's efforts to balance tourism with nature conservation, and Estonia's use of innovation to phase out fossil fuels. Image generated by ChatGPT (OpenAI).

9. PRACTICAL GUIDE FOR YOUNG PEOPLE, CITIZENS AND GLOSSARY

9.1. Knowledge challenge: the planet's rescue plan

9.1.1. Mission 1: the new industrial revolution and bioeconomy

- Question: What is the fundamental difference between the old industrial model and the new Circular model that Europe wants to adopt?
- Bio Challenge: How can simple materials, such as eucalyptus or walnut bark, become "superheroes" in water treatment?
- The Future: Why are smart waste management and sustainable consumption the "key pieces" for a smokeless industry?



Figure 11 - *The Circular Economy: Recycling, Reuse, and Sustainable Resource Management* - Note. Infographic illustrating the core principles of the circular economy: recycle, reuse, and reduce. The diagram highlights key interconnected components, including waste reduction, the development of eco-friendly products, sustainable industrial production, and the transition towards a circular bioeconomy. Image generated by ChatGPT (OpenAI).

9.1.2. Mission 2: smart cities and homes

- Question: If we renovate a house to be energy-efficient, what are the two major immediate benefits for the people living there?
- Mobility: In the cities of the future, why does the European plan prioritise creating extensive networks for cyclists and pedestrians over building more space for cars?
- Reflection: How can digital technology (such as Artificial Intelligence) help a home "decide" how to save energy?

9.1.3. Mission 3: from farm to fork

- Question: Why is reducing the use of chemical pesticides in agriculture considered a win for both your health and biodiversity?
- The Mystery of the Bees: If bees disappeared tomorrow, what would happen to your breakfast?
- Labels: How does knowing the exact origin of your food help protect the planet?

9.1.4. Mission 4: justice and finance

- Question: In practice, what does the Green Deal's motto "No One Left Behind" actually mean?
- Climate Justice: How does the Just Transition Fund help people who worked in polluting industries find new "green" careers?
- The Bill: Is it fair that products imported from outside Europe, which do not follow environmental rules, pay an extra fee to enter our market?



Figure 12 - Eco-Concept Glossary: Essential and Advanced Terms for a Sustainable Planet - Note. Infographic presenting a glossary of key environmental concepts, categorised into "Essential Concepts" and "Pro Concepts". The definitions cover foundational terms such as carbon neutrality, circular economy, biodiversity, greenwashing, and energy poverty, alongside advanced policy terms including climate justice, EU taxonomy, the renovation wave, the twin transition, and renewable energy. Image generated by ChatGPT (OpenAI).

The Future Begins with Your Choice: The European Green Deal is more than just a political plan; it is the roadmap for the survival and prosperity of our continent. By transforming how we produce, consume, and travel, we are ensuring that the Europe of 2050 is a place where the economy and nature thrive together. This transition will only be truly green if it is fair for everyone, leaving no one behind. The next chapter of our planet's history is being written right now, and your participation is the engine of this change.

10. CONCLUDING REMARKS: A UNITED VISION FOR A SUSTAINABLE FUTURE

The European Green Deal represents far more than a simple set of environmental policies; it is a comprehensive growth strategy designed to transform Europe into the world's

first climate-neutral continent by 2050. As outlined throughout this guide, achieving this ambitious "net zero" target requires a fundamental restructuring of our society, ensuring that future economic growth is entirely decoupled from the unchecked exploitation of natural resources.

This monumental transition rests on several interconnected pillars:

- **Systemic Sectoral Change:** From revolutionising our energy grids and embracing a circular industry, to launching the "Renovation Wave" for our buildings and accelerating zero-emission mobility, the shift demands action across all sectors.
- **Protecting Nature and Health:** Strategies such as "Farm to Fork" and robust biodiversity protections highlight that safeguarding our ecosystems and rethinking our food systems are intrinsically linked to public health and long-term food security.
- **A Just and Fair Transition:** Crucially, this socioeconomic evolution is underpinned by the steadfast promise to "leave no one behind". Through strategic financing mechanisms like the Just Transition Fund and the Social Climate Fund, the EU is actively working to ensure that vulnerable demographics, workers, and regions receive the targeted support they need to thrive in the new green economy.

Our exploration of partner nations, Portugal, Croatia, and Estonia, beautifully illustrates that while the ultimate destination is shared, the pathways are incredibly diverse. Whether it is Portugal harnessing wind and water for clean energy, Croatia balancing sustainable tourism with nature preservation, or Estonia leveraging digital innovation to phase out fossil fuels, these countries prove that the Green Deal serves as a unifying language of sustainability.

Ultimately, the success of the European Green Deal relies on more than just high-level legislation; it depends on active citizenship. By integrating smart, sustainable practices into our daily routines, from saving energy at home to making responsible purchasing decisions, every individual contributes to this generational challenge. The next chapter of our planet's history is being written right now, and our collective participation is the true engine of change.

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