

# Climate for CE: the Role of Circularity in the Polish NECP

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## Table of contents

<b>1. Introduction.....</b>	<b>4</b>
<b>2. Circular economy development and climate-energy transition – key linkages .....</b>	<b>6</b>
2.1. EU ETS emissions trading scheme.....	6
2.2. Municipal waste incinerators .....	6
2.3. Transportation sector.....	9
2.4. Construction sector and buildings .....	10
<b>3. Revision of the NECP – a boost for the transformation to the circular economy? .....</b>	<b>12</b>
<b>4. Summary and recommendations .....</b>	<b>14</b>

## 1. Introduction

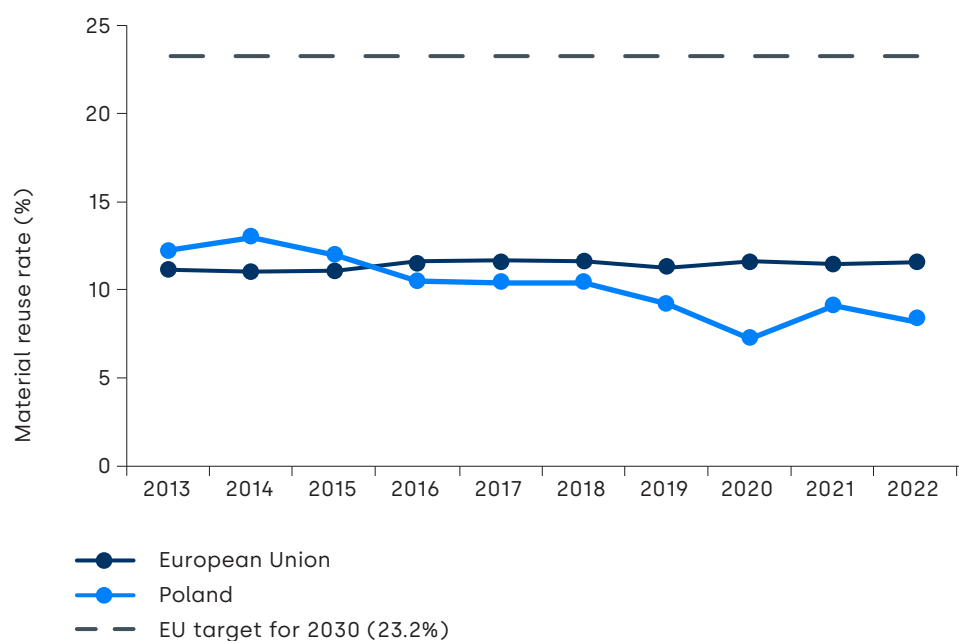
**The purpose of this publication is to discuss the key links between the development of a circular economy and the implementation of climate policy. Conclusions have been drawn that may contribute to the development of the final version of the updated National Energy and Climate Plan (uNECP).**

Currently, the economy is based on a linear production model. It is focused on the continued growth of manufacturing, the increased consumption of materials and the generation of waste.

In Poland in 2022, domestic material consumption was at 19.35 tonnes of raw materials per capita<sup>1</sup>. For comparison, the average in Europe is at 14.5 tonnes<sup>2</sup>. Such high levels of raw material consumption suggest an urgent need for transformation to a circular economy. Such a model seeks to maximise the life cycle of materials and products while minimising waste.

To achieve this goal, it is necessary to accelerate efforts leading to a circular economy. The EU framework sets specific guidelines to support this transformation in member states.

**Figure 1. Material reuse rates in Poland Vs. the EU**



<sup>1</sup> Central Statistical Office, Indicator 12.1.b, Poland's Sustainable Development Statistics, available [here](#).

<sup>2</sup> Eurostat. (2023). EU's domestic material consumption remained stable in 2022, available [here](#).

Source: Material reuse rate: [Eurostat](#),  
EU 2030 target: [Action plan for circular economy](#)

The EU's new Circular Economy Action Plan was published in 2020. This is the European Commission's second action plan, which introduces specific instruments to support the move away from the linear economy. **The main goal is to double the material reuse rate by 2030. The rate currently stands at 11.5%.** Its increase is associated with the need for more intensive reuse of raw materials. It is also important to promote the demand for recyclable materials and introduce mandatory recycling rates (Fig.1). The European Commission will pursue circular economy goals from 2024-2029 under the new Circular Economy Act<sup>3</sup>.

The main goal is to  
double the material reuse  
rate by 2030. The rate  
currently stands at  
**11,5%**

<sup>3</sup> European Commission. (2024). Political Guidelines 2024-2029, available [here](#).

Actions for circular economy are linked to the EU's climate and energy policy, including the "Fit for 55" framework. Its goal is to reduce greenhouse gas emissions across the European Union by at least 55% by 2030 (compared to 1990 levels) and achieve climate neutrality by 2050. In order for these strategies to be effective, it is necessary to effectively combine activities at the European and national levels.

Roadmaps towards the transition to the circular economy have been developed at the national level, but their implementation is voluntary. In most states, the lack of a circular economy obligation results in inadequate implementation of the set goals, or even the abandonment of activities related to the implementation of methods and tools to monitor the transformation from a linear to a circular economy. In Poland, the strategic document on circular economy is the "Roadmap towards the Transition to the Circular Economy". It was adopted by a resolution of the Council of Ministers in September 2019. The document covers five thematic areas:

- sustainable industrial production,
- sustainable consumption,
- bioeconomy,
- new business models
- and implementation of circular economy monitoring and financing.

However, the listed topics fail to meet all current circularity challenges.

In uNECP, activities for circular economy are included in a separate chapter. However, they do not fulfill the goals of the new EU plan or the potential for synergies with the climate and energy framework.

## 2. Circular economy development and climate-energy transition – key linkages

### 2.1. EU ETS emissions trading scheme

One of the main instruments supporting the transition to a climate-neutral economy under the climate and energy framework is the Emissions Trading Scheme (EU ETS). Its goal is to introduce effective mechanisms to reduce greenhouse gas emissions. This system is based on the principle of “cap and trade”<sup>4</sup>. Its implementation leads to an increase in the cost of carbon-intensive production processes, prompting companies to implement low-material-intensive operations and accelerate the transition to circular economy. The system enforces both extending the life cycle of resources, increasing their efficiency, as well as minimising the use of new materials and applying the waste hierarchy.

<sup>4</sup> More information about EU ETS available [here](#).

An extension of the current ETS system (known as ETS2) is planned starting in 2027. The new ETS2 will cover fuel combustion in buildings, road transport and additional sectors (mainly small industry).

The ETS requires the search for savings throughout the life cycle of products. These activities will mainly influence:

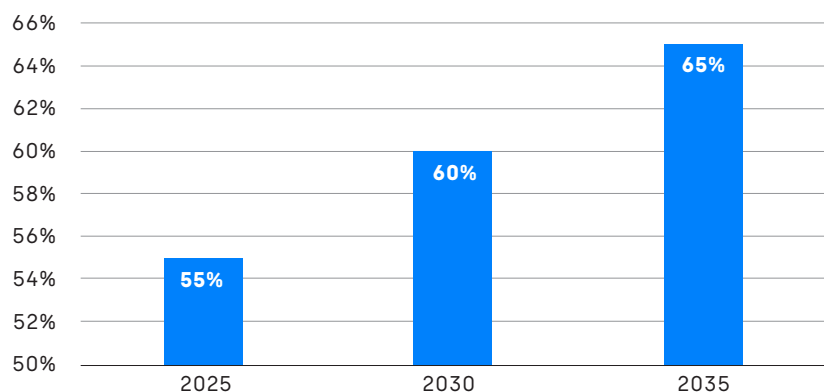
- **Promoting low-carbon materials and products, as well as high-quality recycling and reuse:**  
Rising allowance prices and the withdrawal of their free allocation under the EU ETS are leading to a decline in demand for emission- and material-intensive products (particularly those produced by heavy industry and, after the implementation of the ETS2, also by smaller industrial plants). As a result, the cost-effectiveness of high-quality recycling and reuse of materials will increase.
- **Moving away from waste incineration:**  
With the potential inclusion of waste incinerators in the EU ETS, it will be necessary to look for alternative waste management methods in accordance with the waste hierarchy.

### 2.2. Municipal waste incinerators

As called for in the new Circular Economy Action Plan., the amount of municipal waste should be halved by 2030. Measures to enable the efficient use of raw materials for member states are largely governed by Directive 2018/851<sup>5</sup>, which sets targets in this regard (Figure 2). for the reuse and recycling of municipal waste.

<sup>5</sup> Directive (EU) 2018/851, available [here](#).

**Figure 2. Municipal waste preparation for reuse and recycling targets for EU member states.**



Source: Directive 2018/850, available [here](#).

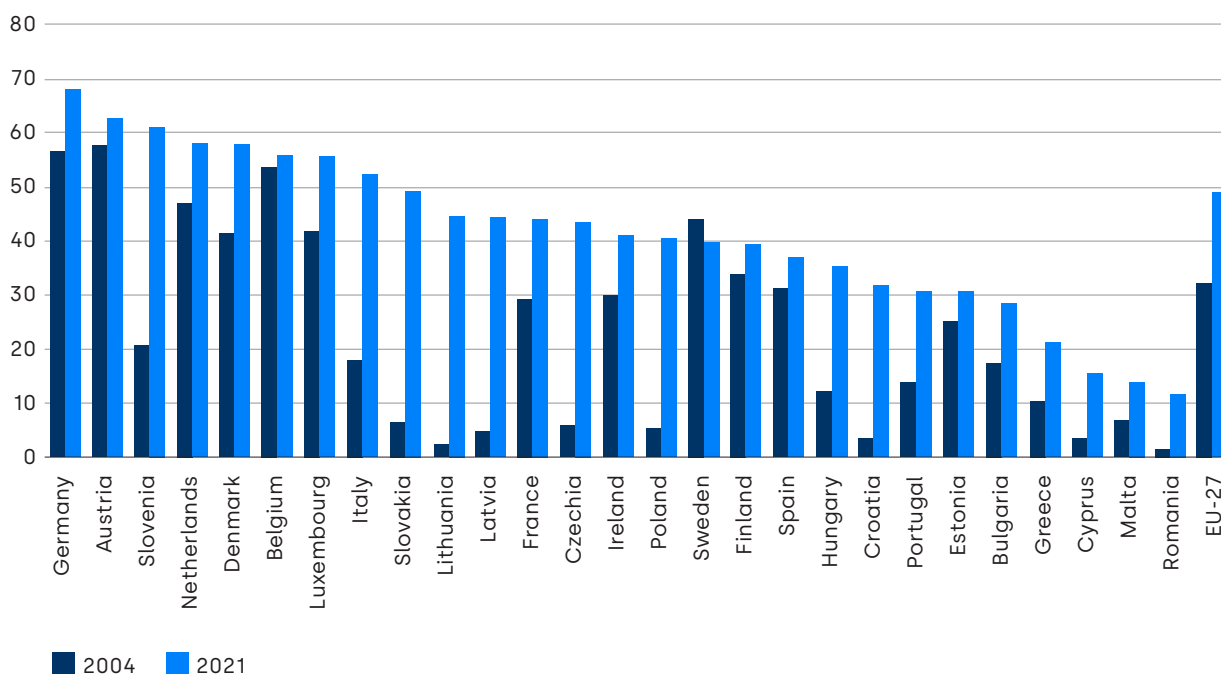
In addition, these states should reduce the amount of municipal waste landfilled to 10% by 2035<sup>6</sup>. Other waste management targets are refined for specific products or raw materials in different industries.

<sup>6</sup> Directive (EU) 2018/850, available [here](#).

Despite these regulations, the Member States (EU-27) are still far from achieving the expected recycling rates. Most of them are unlikely to achieve them in the projected perspective. (Figure 3). Although municipal waste accounts for less than 10% of global waste in the EU<sup>7</sup>, it contains valuable resources and materials that can be reused or recycled and reflects consumer habits.

<sup>7</sup> Eurostat. (2023). Municipal waste statistics. European Statistics Explained. Available [here](#).

**Fig. 3 Recycling rates for municipal waste in Europe by EU countries, %**



Source: [European Environment Agency](#)

**Effective maximisation of resource use in accordance with the waste hierarchy<sup>8</sup> requires the implementation of appropriate legislative and non-legislative activities to effectively minimise waste generation and maximise recycling, recovery and reuse. At the same time, it is crucial to avoid waste incineration without energy recovery and landfilling.**

One of the key areas is the regulation of waste incinerators. Their environmental impact in terms of climate impact is mainly analysed under two areas:

- **EU Emissions Trading System (EU ETS):**
  - From 2024, EU member states will be required to measure, verify and monitor emissions from municipal waste incineration plants with a total rated thermal input exceeding 20 MW.
  - By the end of 2026, the European Commission will assess the feasibility of including emissions from municipal waste incinerators in the EU ETS with a view to 2028<sup>9</sup>.
- **Renewable Energy Directive:**
  - According to the directive, EU member states should not fund “*the production of renewable energy from the incineration of waste, unless the separate collection obligations laid down in Directive 2008/98/EC have been complied with*”.<sup>10</sup>

Prioritising recycling and reuse of waste is consistent with both climate goals and the new Circular Economy Action Plan. The European Parliament resolution calls for efficient use of waste, reducing incineration and moving away from landfills<sup>11</sup>. The resolution thus takes a firmer stance than previous EU policy documents, which treated waste incineration as an integral part of the circular economy<sup>12</sup>.

New industry-specific indicators and guidelines introduced as part of the Circular Economy Action Plan will have a key impact on municipal waste management. A special role in this context is played by:

- **revision of the EU Waste Framework Directive<sup>13</sup>**, including extended producer responsibility in the textile industry and reduction of food waste.
- **revision of the Packaging and Packaging Waste Directive<sup>14</sup>**, introducing recycling and reuse criteria for various industry sectors.

At the EU level, the operation of large incineration and co-incineration plants is regulated by the EU Directive 2010/75/EU on industrial emissions<sup>15</sup>. It applies to incineration or co-incineration plants:

- hazardous waste at facilities with a capacity of more than 10 tonnes per day.
- non-hazardous waste at facilities with a capacity of more than 3 tonnes per day.

Operators of these installations must obtain an integrated permit, meeting the requirements of BAT (Best Available Techniques). As of December 2023, all installations must meet these standards. The August 2024 revision of the Industrial Emissions Directive<sup>16</sup> made these regulations more stringent, making it mandatory, for example, to continuously monitor dioxin emissions, which were previously only checked under normal incinerator operating conditions. Most waste incineration and co-incineration plants included in the EU ETS will also be subject to a permit issued under the Industrial Emissions Directive<sup>17</sup>.

In 2022, the Institute for Environmental Protection analysed the operation of eight municipal waste incineration plants in Poland<sup>18</sup>. Compared to other EU countries, the num-

<sup>8</sup> Definition of the waste management hierarchy, available [here](#).

<sup>9</sup> Directive (EU) 2023/959, available [here](#).

<sup>10</sup> Directive (EU) 2023/2413, available [here](#).

<sup>11</sup> European Parliament Resolution of 10 February 2021 on the new circular economy action plan (2020/2077(INI), available [here](#).

<sup>12</sup> European Commission. (2017). The role of waste-to-energy in the circular economy. (COM No. 34, 2017), available [here](#).

<sup>13</sup> Draft amending Directive 2008/98/EC, available [here](#).

<sup>14</sup> Regulation 2025/40, available [here](#).

<sup>15</sup> Directive (EU) 2010/75/, available [here](#).

<sup>16</sup> Directive (EU) 2024/1785, available [here](#).

<sup>17</sup> European Commission, 2024, Guidance on Interpretation of Annex I of the EU ETS Directive (excl. aviation and maritime activities) Update applicable from 2024, available [here](#).

<sup>18</sup> Institute of Environmental Protection – National Research Institute. (2024). Thermal conversion of municipal waste in Poland in 2022, available [here](#).

ber of installations in our country and their capacity are small<sup>19</sup>. According to a report by the Institute for Environmental Protection, in 2022, the capacity of municipal waste processing by thermal processes<sup>20</sup> was at 42%. That represents a reduction compared to 2021 (45%)<sup>21</sup>. The capacity of the eight municipal waste incinerators in operation<sup>22</sup> was at about 1.2 million Mg<sup>23</sup>. Meanwhile, the National Waste Management Plan 2028 calls for nearly four times the capacity for thermal conversion facilities – 4.2 million Mg per year<sup>24</sup>.

### 2.3. Transportation sector

According to estimates by the International Transport Forum, the transportation sector accounts for two-thirds of global oil consumption and 13% of steel consumption. Transportation is also expected to account for 80% of future battery demand, according to forecasts. Although the electrification of transportation will help reduce emissions during the use of such vehicles, emissions from the material footprint of their production will increase. Therefore, it is necessary to introduce effective mechanisms to optimise the production process from the perspective of material reuse and recycling, ensure raw material security and diversify supply.

**Table 1. Key areas of linkage between climate and energy targets and circular economy for the transport sector in EU legislation**

Area	EU Legislation
Recovery and recycling of raw materials, materials and products from vehicles	<ul style="list-style-type: none"> <li>Regulation (EU) 2024/ 1252 on critical raw materials</li> <li>Proposal for a regulation on end-of-life vehicles</li> </ul>
Development of electromobility in the context of demand for raw materials	<ul style="list-style-type: none"> <li>Regulation (EU) 2019/1020 on batteries and waste batteries</li> <li>Regulation (EU) 2024/1252 on critical raw materials</li> </ul>

Source: Reform Institute

From the perspective of zero-emission transportation infrastructure development, a key relationship between climate and energy policy and circular economy is set out in Regulation 2019/1020 on batteries and waste batteries<sup>25</sup>. The main premise of the revision of CO<sub>2</sub> emission standards for new passenger cars and new light commercial vehicles is to end production of vehicles based on internal combustion engines by 2035. This is an opportunity to popularise electric vehicles, for which the development of battery technology will be key. This development depends largely on the availability of critical raw materials. Therefore, the battery regulation imposes new requirements on manufacturers to manage the life cycle of batteries. These include, among other things

- recovery of cobalt, copper, lead, nickel and lithium,
- implementation of a due diligence procedure, leading to the minimisation of environmental and social risks for sourced raw materials,
- introduction of a digital product passport.

Management of sustainable supply and sourcing of raw materials from a life-cycle perspective is also governed by Regulation 2024/1252 on critical raw materials<sup>26</sup>. In addition, Article 26 of this regulation requires EU member states to prepare and implement programmes to increase the circularity of critical raw materials. These measures could affect the security of sourcing and the development of electromobility in EU countries.

Another important aspect in electromobility considerations is the extraction of resources, raw materials and materials from existing vehicles. The synergy between legislative actions in the new Circular Economy Action Plan is an important pillar of consideration

<sup>19</sup> Confederation of European Waste-to-Energy Plants. (2022). Waste-to-energy plants in Europe in 2020, available [here](#).

<sup>20</sup> In municipal waste incineration plants and co-incineration plants: cement plants, combustion plants (and other co-incineration plants)

<sup>21</sup> Institute of Environmental Protection – National Research Institute. (2024). Thermal conversion of municipal waste in Poland in 2022, available [here](#).

<sup>22</sup> Pronatura (kujawsko-pomorskie voivodship), Krakowski Holding (Małopolskie voivodship), Municipal Cleaning Company Warsaw (Mazowieckie voivodship), PGE Energia (Podkarpackie voivodship), PUHP Lech (Podlaskie voivodship), Municipal Waste Management Company Ltd. KONIN (Wielkopolskie voivodship), Prezero Poznań (Wielkopolskie voivodship), ZUO Szczecin (Zachodniopomorskie voivodship)

<sup>23</sup> Institute of Environmental Protection – National Research Institute. (2024). Thermal conversion of municipal waste in Poland in 2022, available [here](#).

<sup>24</sup> Resolution No. 96 of the Council of Ministers of 12 June 2023 on the National Waste Management Plan 2028. M.P. 2023, item 702, available [here](#).

<sup>25</sup> Regulation (EU) 2023/1542, available [here](#).

<sup>26</sup> Regulation (EU) 2024/1252, available [here](#).

in this context. Obvious synergies include the movement of end-of-life vehicles, which are considered hazardous waste. According to the Waste Shipment Regulation, their export outside OECD countries is prohibited.

A less obvious synergy is from potential mandatory plastic requirements<sup>27</sup>. These include a proposal for a regulation on end-of-life vehicles and a ban on the export of non-hazardous waste to non-OECD countries.

Activities initiated by the proposal for the End-of-Life Vehicle Regulation that contribute to reducing the environmental footprint mainly include:

- developing a circularity strategy for each new type of vehicle,
- declaring the share of recycled materials, including aluminium, steel, magnesium and critical raw materials,
- providing information on disassembly and replacement of parts, components and materials present in vehicles for all operators,
- development of a digital vehicle passport for each vehicle marketed,
- implementation of the new extended producer responsibility guidelines.

<sup>27</sup> New vehicles should be constructed from 25% post-consumer waste plastics, and a quarter of this amount should come from end-of-life vehicles.

## 2.4. Construction sector and buildings

The construction sector accounts for half of the materials extracted, half of the total energy consumption, one-third of the water consumption and one-third of the waste generated<sup>28</sup>. In order to comprehensively address environmental issues, the European Commission has announced the development of a sustainable environment strategy as part of its new Circular Economy Action Plan. The strategy has still not been published.

According to current trends, global material consumption is expected to double. One-third of this growth will be in materials used in the construction sector<sup>29</sup>. This intensification of demand translates into increased emissions over the life cycle of buildings, as the production of construction materials is particularly energy-intensive. To meet the climate goals set for 2030, emissions in the construction sector must be reduced by at least 60% from 2015 levels<sup>30</sup>.

Combining the climate-energy agenda with a closed-loop economy is therefore key to reducing emissions throughout the life cycle of buildings. This will enable, among other things, more efficient use of materials and their recycling, which will reduce the need for virgin raw materials. (Table 2).

<sup>28</sup> Lindblom, J. (2022). The whole life carbon roadmap. Nordic Climate Forum for Construction, available [here](#).

<sup>29</sup> OECD. (2019). Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences. OECD Publishing.

<sup>30</sup> European Commission Communication. (2020), (COM No. 562, 2020), available [here](#).

**Table.2 Key areas of linkage between climate and energy targets and circular economy in the construction sector in EU legislation**

Area	EU Legislation
Standards and frameworks for sustainable construction products	<ul style="list-style-type: none"> <li>■ Regulation (EU) 2024/1781 on ecodesign for sustainable products</li> <li>■ Revision of the regulation on construction products</li> <li>■ Regulation (EU) 2023/956 on establishing a mechanism for adjusting border prices to take into account CO<sub>2</sub> emissions.</li> </ul>
Reducing the carbon footprint over the entire building lifecycle	<ul style="list-style-type: none"> <li>■ Directive (EU) 2024/1275 on the energy performance of buildings</li> <li>■ Directive (EU) 2023/959 on the EU greenhouse gas emissions trading scheme.</li> </ul>

Source: Reform Institute.

Within the sector, two key synergies can be characterised between climate and energy framework and the circular economy:

- Harmonisation of market rules, especially in the area of life cycle assessment of construction products, supporting the standards needed to implement the Energy Performance of Buildings Directive (EPBD)<sup>31</sup>
- Promoting low-carbon construction materials through the EU ETS, providing price incentives for increased material efficiency, high-quality recycling and re-use of raw materials.

<sup>31</sup> Directive (EU) 2024/1275, available [here](#).

Regulation on Ecodesign for Sustainable Products<sup>32</sup> sets standards for various industries, including rules for a digital product passport. The revision of the Construction Products Regulation<sup>33</sup> clarifies the elements that should be included from the perspective of construction products, i.e.: declaration of performance and conformity, and technical documentation, including life cycle assessment of a construction product. The calculation of the environmental assessment should be carried out using software made available by the European Commission in the future, in accordance with European Standard EN 15804 or future standards. These measures are intended to complement the requirements of the EPBD, including reporting and indicators for calculating carbon emissions over the entire life cycle of buildings. In addition, the European Commission should publish a framework for calculating the indicator by the end of 2025.

<sup>32</sup> Regulation (EU) 2024/1781, available [here](#).

<sup>33</sup> Regulation (EU) 2024/ 3110, available [here](#).

The increase in the price of allowances, the withdrawal of their free allocation, and the expansion of the ETS to new sectors will affect both the demand and supply side in terms of extending the life cycle of materials, using eco-design, introducing circular economy business models, and seeking technologies that support the efficient decarbonisation of production processes. At the end of the life cycle, these activities will also promote the elimination of operations that are based on low-quality recovery of materials from construction and demolition waste. In addition, the inclusion of CO<sub>2</sub>-based border price adjustment mechanisms, or CBAM (Carbon Border Adjustment Mechanism)<sup>34</sup>, may reduce imports of construction materials produced by carbon-intensive processes.

<sup>34</sup> Regulation (EU) 2023/956, available [here](#).

So far in Poland, no binding methodology has been adopted for measuring the carbon footprint of buildings, nor has an obligation to prepare an environmental product declaration (EPD). Currently, in the member states, the main requirement for CO<sub>2</sub> emissions is related to the preparation of energy performance certificates, but this applies only to operational emissions<sup>35</sup>. Meanwhile, as required by the Energy Performance of Buildings Directive, member states will be required to set carbon footprint limits for buildings by 1 January 2027. And from 2030 onward, a life-cycle assessment based on the Global Warming Potential will be mandatory for all new buildings. In addition, there is currently no requirement in Poland to prepare EPD declarations based on EN 15804, nor are national databases available for their preparation.

<sup>35</sup> Steinmann, J., Röck, M., Lützkendorf, T., Allacker, K., & Le Den, X. (2022). Policies to implement life-cycle carbon footprint regulations for buildings in the EU27 to reduce embedded carbon emissions in new buildings. available [here](#).

However, according to the Long-Term Strategy for the Renovation of Buildings (Appendix to Resolution No. 23/2022 of the Council of Ministers of 9 Feb 2022), efforts to implement life-cycle assessment in buildings are a task within National Smart Specialisation 5: Smart and energy-efficient construction. One of the tasks is to develop tools for energy and environmental verification in terms of embedded energy intensity and application of the full life cycle method. Measures regarding the waste hierarchy and the goals of a closed-loop economy in the context of construction and demolition waste will also be included in the National Building Renovation Plan.

In terms of end-of-life waste management, Poland will have mandatory selective collection of construction and demolition waste in place, starting in 2025. Important in this area is the planned 2025 revision of the material recovery levels set by EU legislation for construction and demolition waste<sup>36</sup>.

<sup>36</sup> European Commission. (2020). (COM No. 622, 2020), available [here](#).

### 3. Revision of the NECP – a boost for the transition to the circular economy?

The version of uNECP published in October 2024 devotes a separate chapter to circular economy activities. However, the current document fails to take into account the challenges and assumptions in the new action plan for the circular economy and ignores the synergies associated with the “Fit for 55” framework.

Activities focused on circularity have been limited mainly to the area of waste. However, the impact of monitoring and analysis of the possible inclusion of municipal waste incinerators in the ETS was not included. Issues of managing waste from the transportation sector and construction and demolition waste were also omitted.

The document does not clearly define the areas and goals associated with the transition from a linear to a circular economy, nor does it provide examples of circular economy actions to support the climate-energy transition. Also missing from the introduction is a reflection on the scope, purpose, activities and key industries that can influence the development of circular economy at the national level.

The main goal of circular economy – contrary to the statement in the uNECP – is not to reduce CO<sub>2</sub> emissions. Circular economy focuses on enabling economic development while reducing resource consumption and waste production. As a result, it also contributes to reducing CO<sub>2</sub> emissions, but this is an additional effect. The climate and energy framework, on the other hand, focuses on directly reducing greenhouse gas emissions.

The uNECP also lacks consideration of consumption patterns that affect the amount of waste generated. Experience shows that we can reduce resource consumption not only at the production stage, but already at the design stage in a way that promotes longer product life cycles. In addition, innovation is mentioned as a driver of circular economy. Meanwhile, it seems more important for the success of the transformation to implement circular economy-based business models that can support the development of innovation.

The current version of the uNECP largely omits:

- policy instruments included in the new EU plan for circular economy and their synergy with the climate and energy framework,
- the demand side of circular economy in industry, that is, activities that reduce the demand for primary production,
- the need to revise existing strategic documents on circular economy.

What is missing from uNECP is discussion of issues such as mandatory recycling and reuse rates for materials and products, the introduction of a digital product passport, green public procurement and circular economy-based business models.

Also missing is an analysis of the synergies between the new circular economy plan and the “Fit for 55” framework. This influences the selection of exemplary circular economy activities, such as CCS recovery and storage technologies, green hydrogen, biogas and biomethane development, and waste heat. These activities can indirectly support the transformation. However, they are not directly related to the new circular economy plan, but to other European Green Deal policies. This translates into a selection of activities that should be tailored to circularity, rather than exclusively to areas related to the “Fit for 55” framework.

In this context, the following two actions are justified for the implementation of the new circular economy plan:

- **Action 120. Efficient management of raw materials important to the national and EU economy:** From a climate-energy perspective, the development of a circular economy transformation would benefit from attention to the development of low-carbon transportation infrastructure, vehicle lifecycle management and lifecycle management of construction materials.
- **Action 145. Building awareness – the circular economy:** In light of the Circular Economy Action Plan, specific activities are envisioned to build awareness of circularity among stakeholders. Organising conferences, webinars, trainings, projects, contests and other promotional activities are general tools for building stakeholder engagement. Key activities in support of circularity aim to increase stakeholder awareness of implementing circular economy-based business models, mandatory recycling and reuse rates for materials and products, and developing circular economy strategies.

The text of the uNECP refers to the “Roadmap towards the Transition to the Circular Economy” as an indicator of activities and areas of circularity. However, the most recent actions included in this strategy document took place until 2023 and do not take into account the current challenges of legislative and non-legislative activities at the European level.

In summary, the current version of the uNECP fails to address the challenges of the transition from a linear to a circular economy and fails to address the key actions from the new Circular Economy Action Plan, linked to the “Fit for 55” framework.

## 4. Summary and recommendations

In Poland, it is necessary to better link support for the development of a circular economy with efforts to reduce greenhouse gas emissions. Current measures are inconsistent and do not sufficiently fit in with EU goals. Meanwhile, circular economy activities can support climate and energy policy by:

- reducing the use of raw materials in the production of new products,
- increasing the efficiency of material use,
- increasing recycling.

Harmonisation of circular economy guidelines with climate and energy policy at the national level should also be included in uNECP. The following are actions worth incorporating into the final version of the Plan.

### **Create a new Circular Economy Roadmap**

- Update the “Roadmap towards the Transition to the Circular Economy”, taking into account key industry sectors, sustainable consumption models and circular policy instruments as pillars for implementing circular economy-based business models.
- Indicate in the document the most important actions resulting from EU initiatives and take into account the local, regional and national conditions to enable an effective transition from the linear model to the circular model.

### **Optimise the management of municipal waste incinerators**

- Conduct an analysis of the economic impact of implementing the EU ETS and building new incinerators.
- Introduce extended producer responsibility for industries that generate large amounts of municipal waste.
- Develop a plan to monitor the effectiveness of the operation of waste incinerators with their associated infrastructure.
- Analyse local opportunities for effective implementation of the waste hierarchy.

### **Implement a sustainable policy for the automotive sector**

- Prepare forecasts for obtaining raw materials in the context of developing electromobility and recycling end-of-life vehicles. These forecasts should be linked to the National Raw Materials Policy and the National Waste Management Plan.

- Build awareness among producers throughout the automotive value chain about the new circular requirements and recycling utilisation rates.

#### **Implement a sustainable transformation strategy in the construction industry**

- Develop a roadmap for the transformation of the construction industry, incorporating recycling and reuse of materials.
- Prepare a framework for calculating the carbon footprint of buildings at all stages of the life cycle.
- Introduce an incentive system for manufacturers to use environmental declarations for construction products.
- Increase stakeholder awareness of green public procurement.
- Educate construction product manufacturers about new sustainability and environmental responsibilities.

#### **Make circular economy an integral part of industry decarbonisation strategy**

- Prepare a decarbonisation strategy for the industry, taking into account climate-neutrality scenarios, building on both existing national efforts and future legislative and non-legislative initiatives taken at the EU level.
- Include the role of circular economy in the decarbonisation strategy for the industry, which will contribute to reducing the demand for primary production.

#### **Include bioeconomy activities**

- Consider the synergies between the bioeconomy and climate-energy transition in the agri-food industry in the planned revision of <sup>37,38</sup>, which is key to competitiveness at the national and European level, with an eye on long-term advantage beyond 2030<sup>39</sup>.

<sup>37</sup> European Commission Communication. (2018). (COM No. 673, 2018), available [here](#).

<sup>38</sup> European Commission Communication. (2023). Long-term competitiveness: An EU industrial policy framework suitable for green and digital transformation, (COM No. 161, 2023). Available [here](#).

<sup>39</sup> Council of the European Union. (2023). Council document ST 4/2023 INIT: New strategic agenda 2024-2029 for the European Union, available [here](#).

