

The background of the slide is a photograph of a wind farm. Numerous wind turbines are visible, stretching across a flat, green field under a twilight sky. The lighting is soft and dim, suggesting the time is either dawn or dusk. The turbines are dark against the lighter sky, and the field in the foreground is a deep green.

spondeo

Green Energy Opportunities in Poland

dd/mm/yyyy

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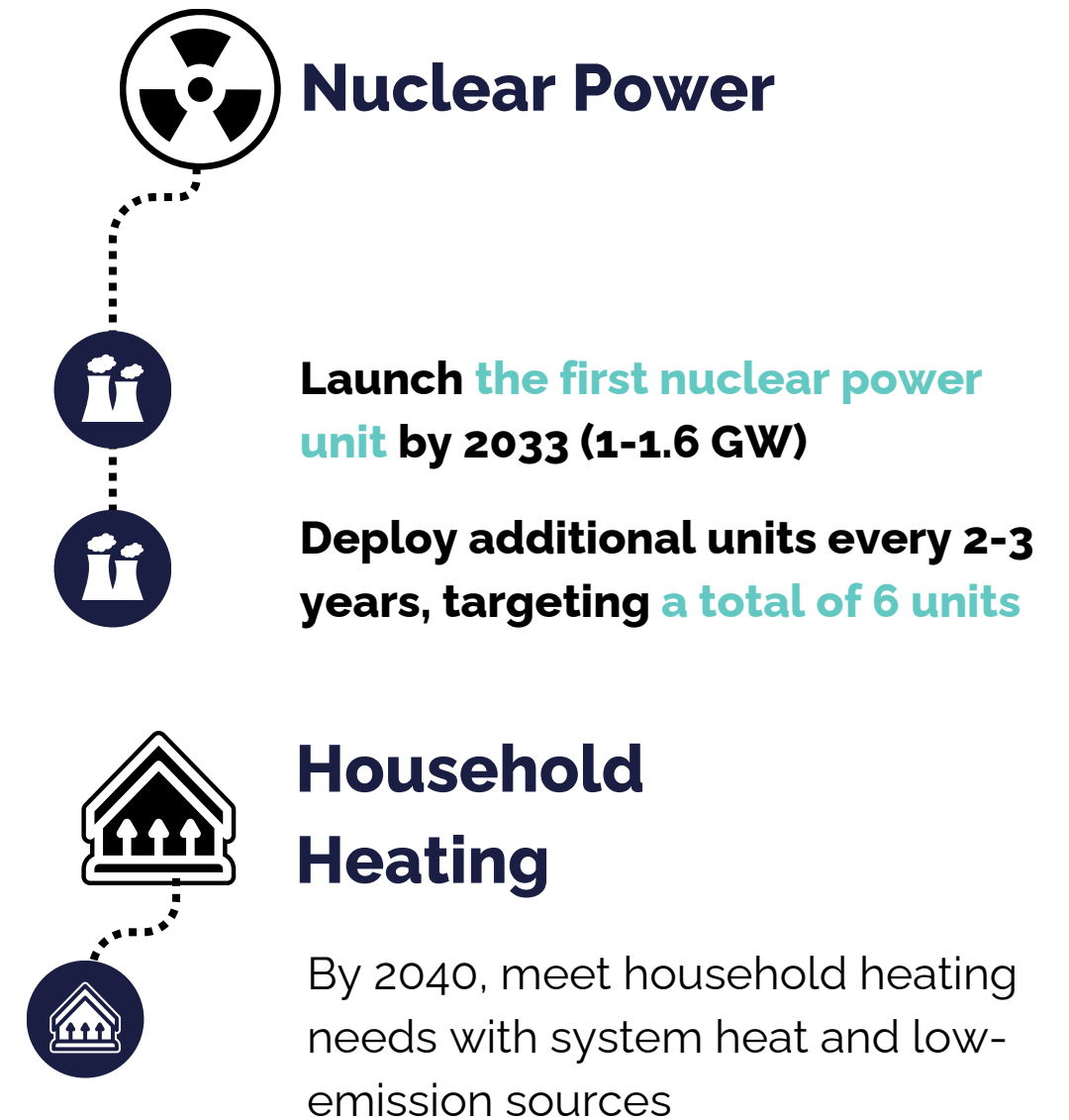
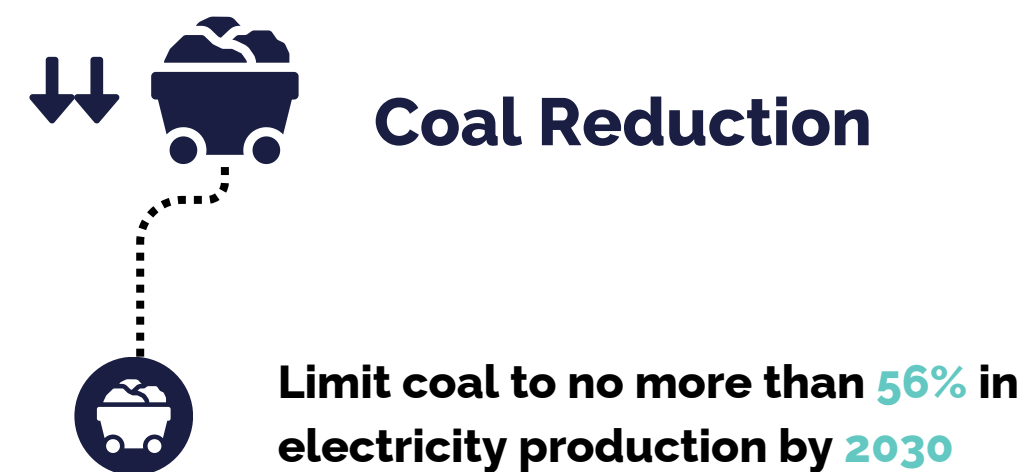
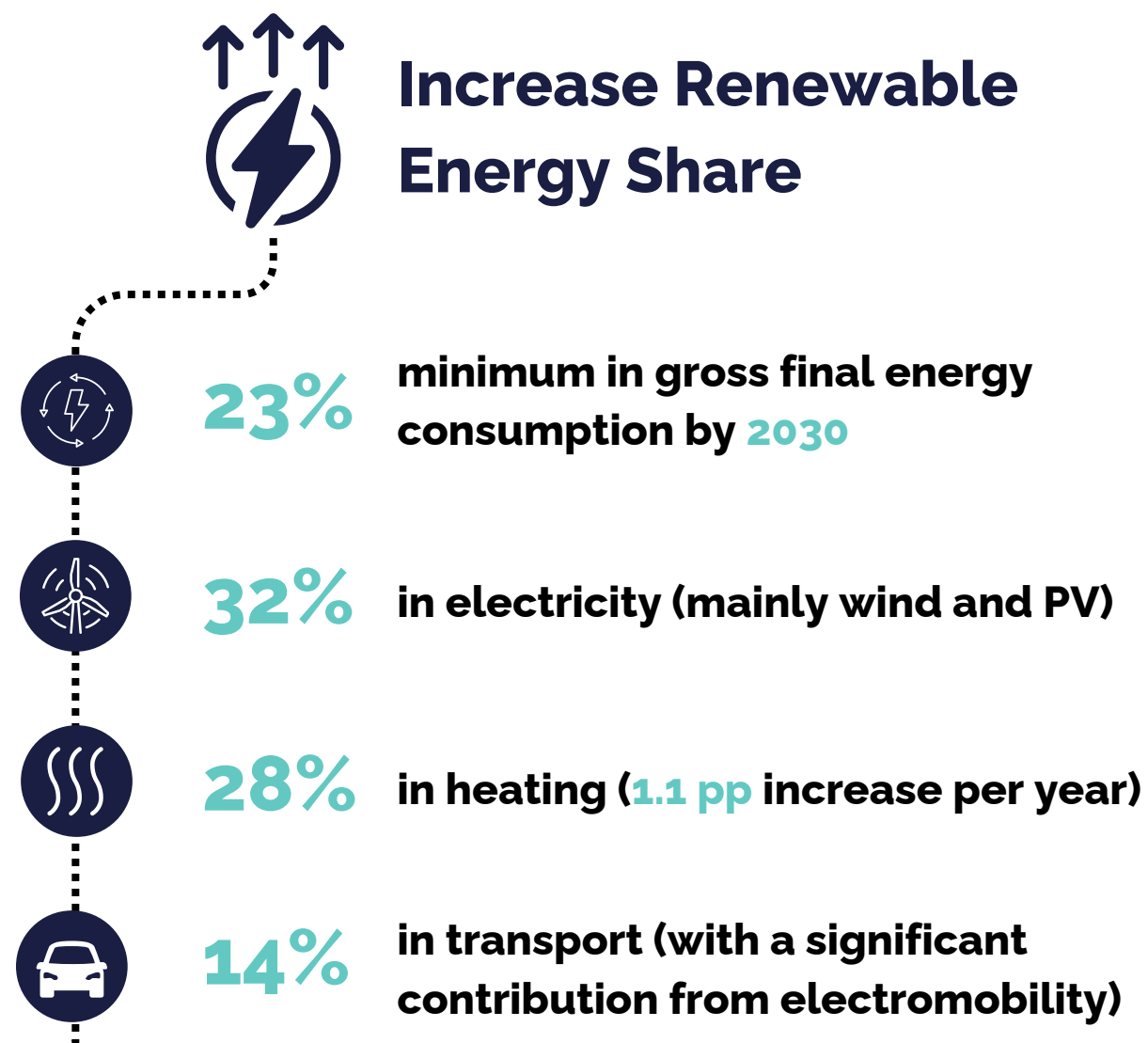
**Events for green energy
opportunities in Poland - pp.25-26**

1. Energy Policy of Poland until 2040 (EPP2040)

Goal:

Ensure energy security, economic competitiveness, energy efficiency, and environmental sustainability through optimal use of domestic energy resources.

Key Elements



2. Green Energy Trends in Poland: **Biogas Sector**

Source



witnessed a surge in biogas plant interest and investments in small agriculture



of potential biogas plants with abundant substrates: **straw (7.2M tons), natural fertilizers (12M tons), hay (2.57M tons)** are supported by the Polish economy.



installations in biogas industry in Poland (as of March 2023)



applications were accepted by **Rural Energy program** for local biogas plants by end of 2023, with a total funding value of **PLN 533M**



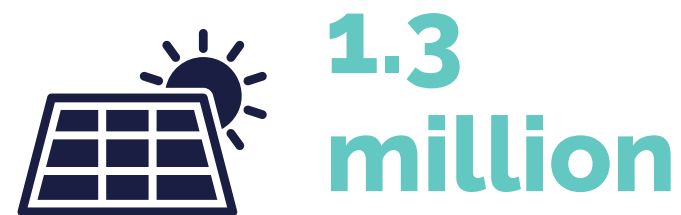
overall **optimism** for dynamic industry development, the industry foresees **increased profitability**.



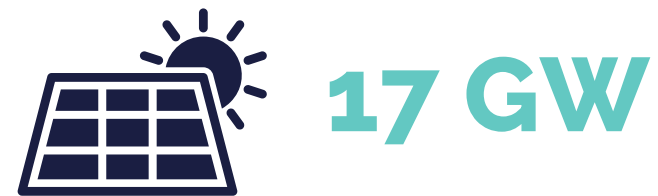
anticipated municipal sector investment explosion in the coming years due to bio-waste management issues and high energy prices.

2. Green Energy Trends in Poland: Solar Power

Source



solar power installations in Poland



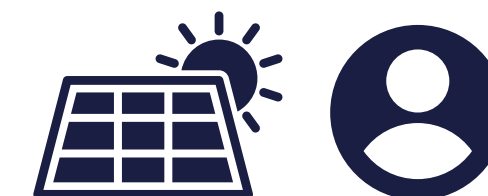
The installed capacity of photovoltaics in Poland (end of December 2023)



The average new PV installation in December.



Number of new photovoltaic installations in December 2023



Photovoltaics accounts for almost **60 %** of the installed renewable energy capacity.

The list of the largest photovoltaic power plants is as follows:

Zwartowo – 204 MW – Respect Energy
Brudzew – 70 MW – ZE PAK;

Witnica – 64 MW – Alternus Energy Group;

Wielbark – 62 MW – ORLEN Group; Stępień – 58 MW – Wento

2. Green Energy Trends in Poland: Wind Power

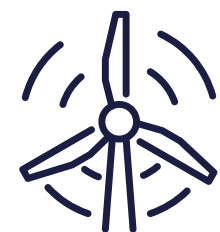
Source

**Wind is the second-largest green energy source in Poland.



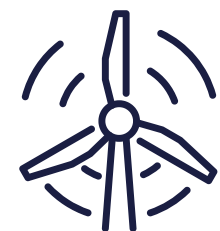
9.4 GW

The installed capacity of wind farms in Poland by December 2023



14.3% ↑

wind capacity increased compared to December 2022



66.4 GW

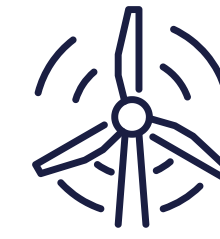
the total installed capacity in the national power system (with wind farms comprising 14.2%) in December 2023



Three new wind installations with a total capacity of 7.11 MW were added in December 2023, and 60 new installations totaling 766.96 MW were established throughout 2023

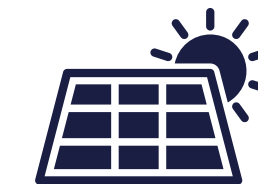
There were 57 prosumer installations within wind farm areas in December 2023, contributing 0.32 MW and 3.8 MWh to the grid.

The largest wind farm in Poland is FW Potęgowo (219 MW), operational since December 2020, with 81 General Electric turbines and a total investment cost of 1.25 billion PLN (EUR 290 million), owned by the foreign investment fund.



33% (9.4 GW)

contribution of wind farms to the total installed renewable energy capacity of 28.8 GW



59.3% (17 GW)

contribution of photovoltaics farms to the total installed renewable energy capacity of 28.8 GW



3. EU and national funds allocated to green energy & climate transition

€137 billion of unlocked EU funds - Breakdown (1/2)

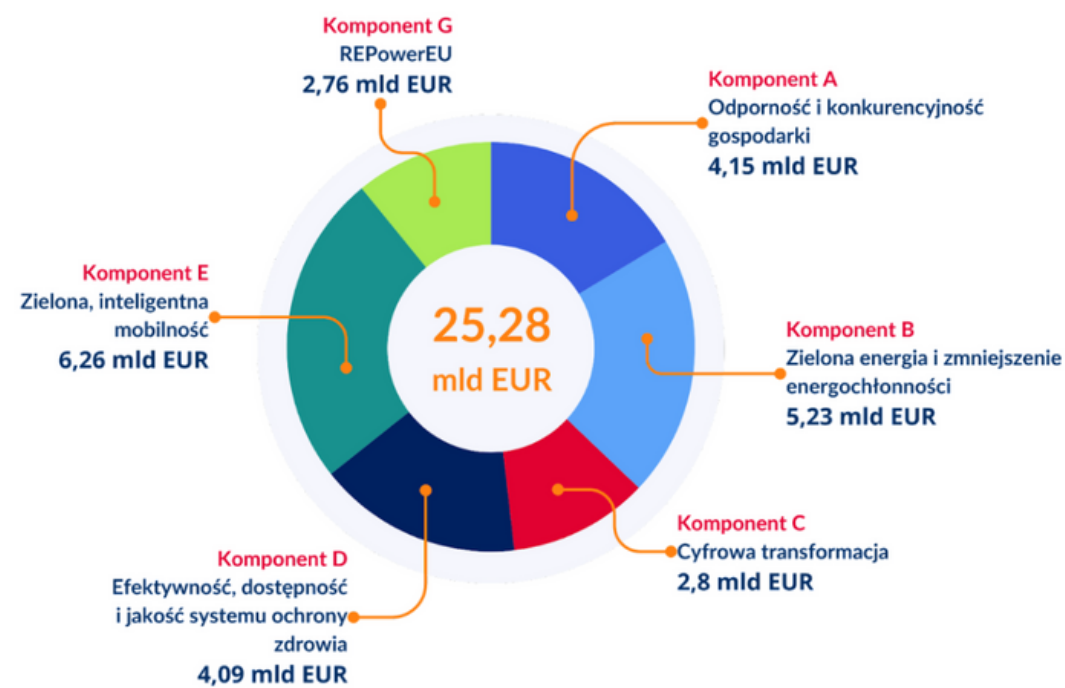
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€59.8 - Post-pandemic recovery fund (RRP)

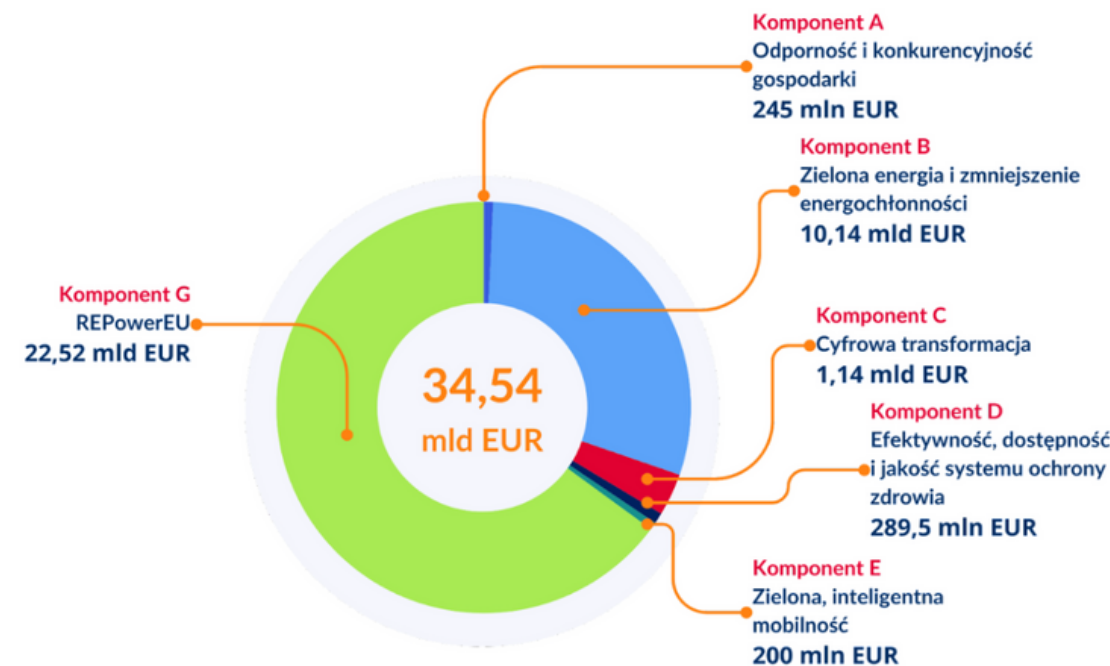
RRF grants (on the left)

RRF preferential loans (on the right)

PODZIAŁ ŚRODKÓW KPO
DOTACJE



PODZIAŁ ŚRODKÓW KPO
PREFERENCYJNE POŻYCZKI



Component
A - Resilience and competitiveness of the economy
B - Green energy and energy intensity reduction
C - Digital transformation
D - Efficiency, accessibility and quality of the health system
E - Green, smart mobility
G - REPowerEU

€137 billion of unlocked EU funds - Breakdown (2/2)

[source](#)
[source](#)
[source](#)

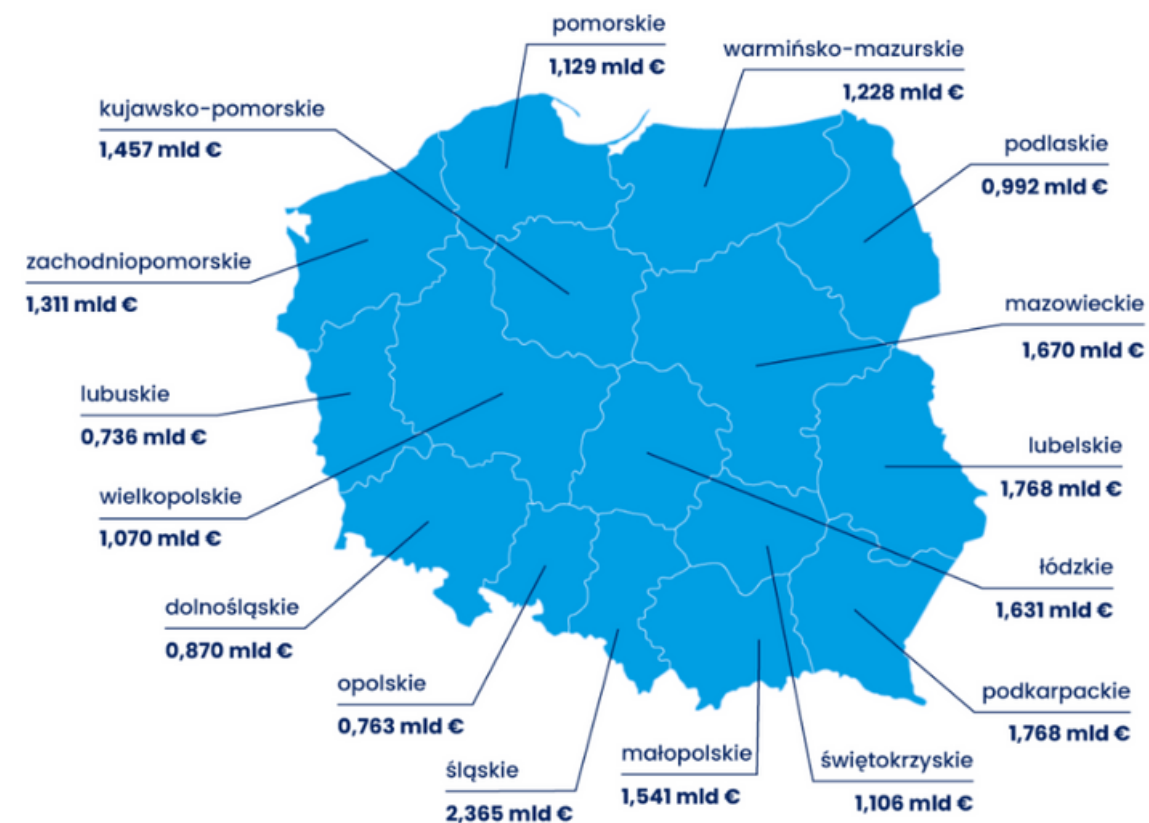
€76 bln - Cohesion Policy

60% of cohesion policy funds to programs implemented at national level:

-  Infrastructure and Environment - €25.1 billion
-  Intelligent Development - €8 billion
-  Knowledge, Education, Development - €4.3 billion
-  Digital Poland - €2 billion
-  Eastern Poland - €2.5 billion
-  Technical Assistance - €0.5 billion
-  Equitable Transition program - €4.4 billion
-  Food Aid Program - €0.2 billion
-  Fish program - €0.5 billion

40% of cohesion policy funds will go to regional programs

Podział środków unijnych w ramach Regionalnych Programów Operacyjnych na lata 2021-2027



The Cohesion Policy 2021-2027 includes funds: European Regional Development Fund (ERDF – to strengthen economic and social cohesion), Cohesion Fund (CF – to reduce economic and social disparities and promote sustainable development), European Social Fund+ (ESF+ – to respond to labour market challenges) and Fair Transition Fund (FST – to mitigate the social and economic impacts of the energy transition). The European Maritime and Fisheries Fund (EMFF – to support coastal communities) will cover the Common Fisheries Policy.

3.1. Poland's Recovery and Resilience Plan (RRP)

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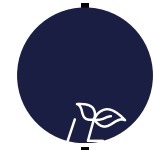


46.6% of the plan will support the green transition



€ 15.37 billion

Green energy and reduction of energy intensity



€ 6.46 billion

Green and smart mobility



€ 25.28 billion

REPowerEU



€59.8 billion

(€34.5 billion in loans and €25.3 billion in grants)

3.2. European Funds for Infrastructure, Climate, Environment – FEnIKS

source
source
source

The program will distribute funds from two principal EU programs: the Cohesion Fund (CF) and the European Regional Development Fund (ERDF)



Based on the cohesion policy regulation package, from the CF, at least 37% of funds are to be allocated to the implementation of climate objectives, and from the ERDF, at least 30%



Forms of support: grants, financial instruments, instruments combining repayable and grant financing



The largest cohesion policy programme in the European Union: The total amount of the budget allocated to investments and projects is almost EUR 29.3 billion, including the European Union Funds amounting to approx. 24.2 billion euros

€ 6.08 million

Green energy and reduction
of energy intensity

€ 3.67 million

Environment sector

3.3. Just Transition Fund (JTF)

[source](#)
[source](#)

TF supports territories that are particularly affected by the transition towards a climate-neutral economy

Fund duration: 2021-2027



€3.85 billion support for the coal regions of Silesia, Małopolska, Wielkopolska, Lower Silesia and Łódzkie:

- **€2.4 billion** for Silesia and Western Małopolska
- **€415 million** for Wielkopolska
- **€581.5 million** for Lower Silesia
- **€369.5 million** for Łódzkie



The JTF will support activities from three broad categories:

- **Economic revitalisation**, including investments in the deployment of technology and infrastructures for affordable clean energy, in greenhouse gas emission reduction, energy efficiency and renewable energy;
- **Social support;**
- **Land restoration.**



Financing under the other two pillars of JTM:

1. A just transition scheme under **InvestEU**
2. A **Public Sector Loan Facility for Just Transition** that combines Commission grants with European Investment Bank loans

3.4. Connecting Europe Facility (CEF)

[source](#)
[source](#)
[source](#)

CEF aims to support the modernization and construction of infrastructure located on the TEN-T trans-European transport network. There are 2 transport corridors passing through Poland:

Baltic Sea - Adriatic Sea



North Sea - Baltic Sea



The program is managed by the European Climate, Infrastructure and Environment Executive Agency (CINEA)



€33.7 billion

The overall budget for CEF 2021-2027



€25.8 billion for transportation



€5.8 billion for energy



€2.1 billion for digital technologies



Under CEF 2014-2020, 18 competitions were held, with Polish applicants participating in each. **More than half of applications from Poland were successful (69 out of 127)**



Poland is the largest beneficiary of the CEF Transport in the EU - more than 18% of the awarded co-financing in the transport sector is attributed to projects from Poland (2019 data)

3.5. LIFE Programme

source
source

Scope: innovative RES ventures.

 **€5.43 billion**

The total budget for 2021-2027

 **€3.49 billion** for the environment

 **€1.94 billion** for climate action



up to 60% of relevant costs

Grant amount

Since 1992, the LIFE Programme has funded 131 projects in Poland over 85 coordinating beneficiaries with total project costs of **€326.5m**, of which the EU contributed €182m



Managed by the European Commission, which every year publishes a call for proposals.

3.6. Innovation Fund

[source](#)
[source](#)

Focuses on highly innovative clean technologies and big flagship projects with European added value that can bring significant emission and greenhouse gas reductions.

Covers a wide range of innovative technologies in areas such as:



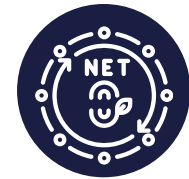
energy-intensive industries



renewables



energy storage



net-zero mobility and buildings



hydrogen capture



carbon capture



€12.6 million

The Innovation Fund grant in Poland out of the total relevant costs of EUR 4.9 billion



up to 60% of relevant costs

Grant amount



€40 billion

from 2020 - 2030, based on a carbon price of 75 €/tonne.

3.7. Horizon Europe

source
source

Supports research and innovation projects in technology to make energy use more efficient.

Its “Cluster 5” focuses on:



climate



energy and mobility



including energy efficiency in buildings and industry



a sustainable-built environment



€95.5 billion

Overall budget in 2021-2027



€15.12 billion

for Climate, Energy & Mobility (included)

- Legal entities from the EU and associated countries can participate.
- The European Commission publishes calls for proposals based on the [Horizon Europe work programmes](#).

3.8. Modernization Fund

[source](#)
[source](#)

Dedicated funding programme to support ten EU Member States in their transition to climate neutrality, by helping to modernize their energy systems and improve energy efficiency.

- The fund will be open from 2021 to 2030
- The funds will mostly come from the sale of carbon allowances for 2021-2030 under the EU Emissions Trading System. **Depending on their price, the value of the Modernization Fund could be as high as €14 billion, of which Poland will receive more than 43%.**

3.9. National Fund for Environmental Protection and Water Management

- [List of current priority programmes](#), including Zero and low-carbon energy system; Agro-energy; My Power; Energy Plus; Economic hydrogenation
- [Descriptions of programs for 2022-2024](#).

3.10. EBRD in Poland

[source](#)
[source](#)

Focuses on promoting the low carbon economy, enhancing the private sector's role in the economy and assisting in the development of a sustainable financial sector and capital markets.

Offers a wide range of financial instruments and takes a flexible approach in structuring its financial products. The principal forms of direct financing that the EBRD may offer are loans, equity and guarantees.



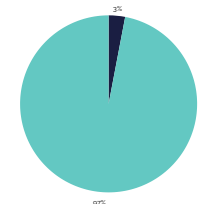
€13.98 billion

of cumulative EBRD investment with record
€1.3 billion invested in Poland in 2023



518

projects in Poland to date



97%

private sector share of portfolio



3rd largest market

In 2023, Poland was the EBRD's third largest market

3.11. EIB in Poland

[source](#)

Provides finance and expertise for sound and sustainable investment projects in Poland

Supports small businesses, while enhancing climate action and innovation. Focuses also on energy transition and urban sustainability



€93.09 billion

of cumulative EIB investment



606

projects in Poland to date

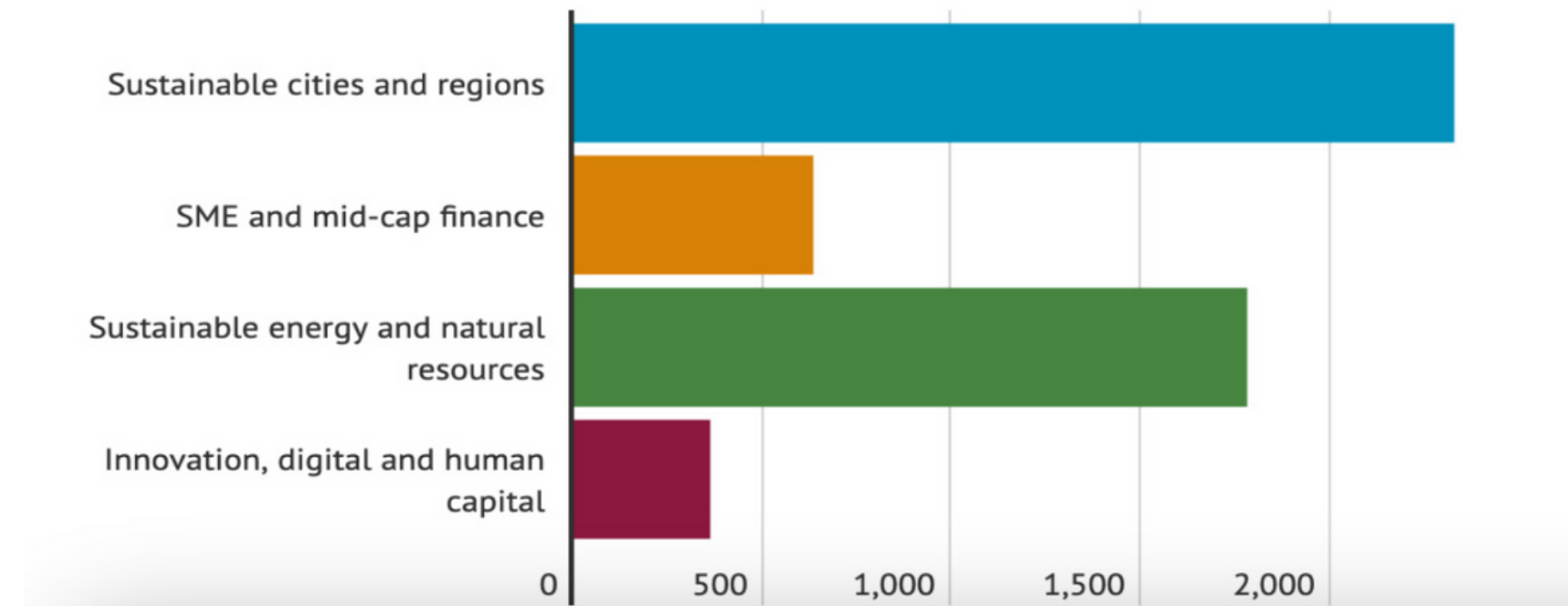


20

local partners

Last year's EIB Group activity in Poland by priority

(In € million, last updated at previous year end)



3.12. FENG green loan

source

Investments for broadly understood energy efficiency, including those related to energy efficiency or changing the sources of energy used to cleaner ones.



max 70%.

Amount of support



PLN 660 million (EUR 153 million)

Budget of the call for proposals

Who can apply?

- **1. micro, small and medium-sized enterprises,**
- **2. large enterprises (small mid-caps and mid-caps).**

The modernization must result in a reduction of primary energy consumption by at least 30 percent compared to current consumption

3.13. Green loans offered by the banks in Poland

source



mBank plans to provide around **EUR 2.31 billion** in green financing (for renewables, decarbonization, closed-loop economy, electromobility etc.) by the end of 2025. [\[source\]](#)



Millennium Bank plans to provide **EUR 463 million** in financing of sustainable corporate and leasing projects in 2022-2024. [\[source\]](#)



NP Paribas offers a portfolio of green products (renewable energy, energy efficiency, electromobility, green loans and bonds) such as Green Loan, Sustainability-Linked Loan, ESG Rating-Linked Loan and Loan with guarantee BIZNESMAX. [\[source\]](#)



BOŚ Bank was established on the initiative of the National Fund for Environmental Protection and Water Management in order to further the delivery of Poland's environmental protection & water management programme:

- Provided over **EUR 6.25 billion** green loans between 1991 and 2023.
- Under strategy for 2024–2026, BOŚ Bank will further expand our green offerings, placing a priority focus on corporate clients [\[source\]](#)

4. Examples of foreign companies which obtained financing for green energy in Poland



Finnish Fortum Power and Heat was awarded a grant of EUR 5 million for the construction of a 12.5 MW heat pump in Wrocław, Poland. It is financed 45% from the funds of the Environment, Energy and Climate Change Programme, of which 85% comes from the Financial Mechanism of the European Economic Area (EEA FM) and 15% from the state budget. [\[source\]](#)



Estonian company Sunly obtained a EUR 63 million loan from mBank for the construction of photovoltaic farms with a total capacity of 98 MW in Poland. [\[source\]](#)

TAALERI



EBRD provided a EUR 26 million loan to Fonnes, a Polish holding company owned jointly by Finnish Taaleri SolarWind II and Masdar (Abu Dhabi Future Energy Company), for the purpose of the acquisition, construction and operation of the 37.4MW Mława wind farm and the 14MW Grajewo wind farm. [\[source\]](#)



Polish government granted Swedish Aira EUR 15M for the establishment of a manufacturing site in Poland to produce heat pumps. [\[source\]](#)



Daikin Europe, a subsidiary of Japanese Daikin Industries, received a government grant of EUR 13.5 million for construction of a residential heat pump factory in Łódź, Poland. [\[source\]](#)

4. Examples of foreign companies which obtained financing for green energy in Poland

**Jerónimo
Martins**

European Investment Bank (EIB) will provide Portuguese Jeronimo Martins with financing in the amount of EUR 347 million to support investments in Biedronka store chain's energy efficiency. [\[source\]](#)

ENERGINET

Polish GAZ Systems received 243.5 million EUR and Danish Energinet 23.25 million EUR of EU funding through the Connecting Europe Facility (CEF) for Baltic Pipe construction, a key route to carry gas from Norway through Denmark to Poland and neighboring countries. [\[source\]](#), [\[source\]](#)

goldbecksolar

**ENERGY CONSULT
POLSKA**

German Goldbeck Solar (80 percent) and Polish Energy Consult (20 percent) obtained EUR 46 million loan from EBRD for the construction and operation of a solar PV power plant with a planned total capacity of up to 286 MWp in Zwartowo, Poland. [\[source\]](#)

eleport

Estonian Eleport obtained a EUR 9 million CEF grant for development of 90 ultra-fast EV charging stations along the TEN-T network in Poland. [\[source\]](#)



TESLA

Tesla obtained a EUR 11.94 million CEF grant for development of 33 EV charging stations in Poland. [\[source\]](#)



**NORTHLAND
POWER**

EBRD granted EUR 250 million loan to finance the construction and operation of the 1.14GW Baltic Power offshore wind farm in Poland. The Borrower is a joint venture between Polish PKN ORLEN S.A. (holding 51% shares), and Canadian Northland Power. [\[source\]](#)

4.1. Schedule of EU funding in 2024

➤ **Modernization Funds - Rational waste management – use of alternative fuels for energy purposes**

- Construction of new, expansion or modernization of existing installations for the thermal transformation of waste or other alternative fuels produced from municipal waste with energy production in high-efficiency cogeneration.
- Grant up to 50% of eligible costs, not more than PLN 100 million (EUR 23 million).

Deadline: 13.12.2023 – 30.04.2024

➤ **FEniKS - Development of renewable energy sources - production and use of biomethane and biogas**

- Support will cover larger installations with a capacity above 0.5 MWe (electricity) and 0.5 MWth (heat).
- Grant / loan - up to 45% of eligible costs

Deadline: 29.02.2024 - 13.05.2024

➤ **FEniKS – Energy Efficiency**

- Grant / loan - up to 30% of eligible costs

Deadline: 29.02.2024 - 13.05.2024

4.1. Schedule of EU funding in 2024

➤ **Modernization Fund - Energy-intensive industry - renewable energy**

- Investments related to the construction or reconstruction of units generating electricity from renewable energy sources along with energy storage or connecting them to the plant and/or distribution/transmission network.
- Loan up to 100% of eligible costs from PLN 5 to 300 million (EUR 1.15 to 69.4 million).

Deadline: 23.10.2023 – 20.12.2024

➤ **Modernization Fund - Energy-intensive industry - improving energy efficiency**

- Types of projects: investments aimed at improving energy efficiency (excluding thermal modernization and renovation investments)
- Loan up to 100% of eligible costs from PLN 1 to 300 million (EUR 0.2 to 69.4 million).

Deadline: 23.10.2023 – 20.12.2024

➤ **FENG green loan**

- Grant / loan - up to 30% of eligible costs

Applications: from 25.04. to 25.07.2024 and from 17.10 to 30.12.2024

5. Events for green energy opportunities in Poland



1st Carbon Capture Congress in Poland - utilization & storage

23 April 2024, Poznań



GREENPOWER - International Renewable Energy Fair

23-25 April 2024, Poznań



7th Biomethane Congress

21-22 May 2024, Poznań

5. Events for green energy opportunities in Poland



Recycling Tech: International Trade Fair for Recycling Technologies and Raw Materials Recovery

18-19 September 2024, Warsaw



POLECO - International Trade Fair of Environmental Protection

15-17 October 2024, Poznań



Solar Energy Expo - Renewable Energy Sources Industry Trade Fair

14 - 16 January 2025, Warsaw

Done by **spondeo**

Contact details & Media Presence



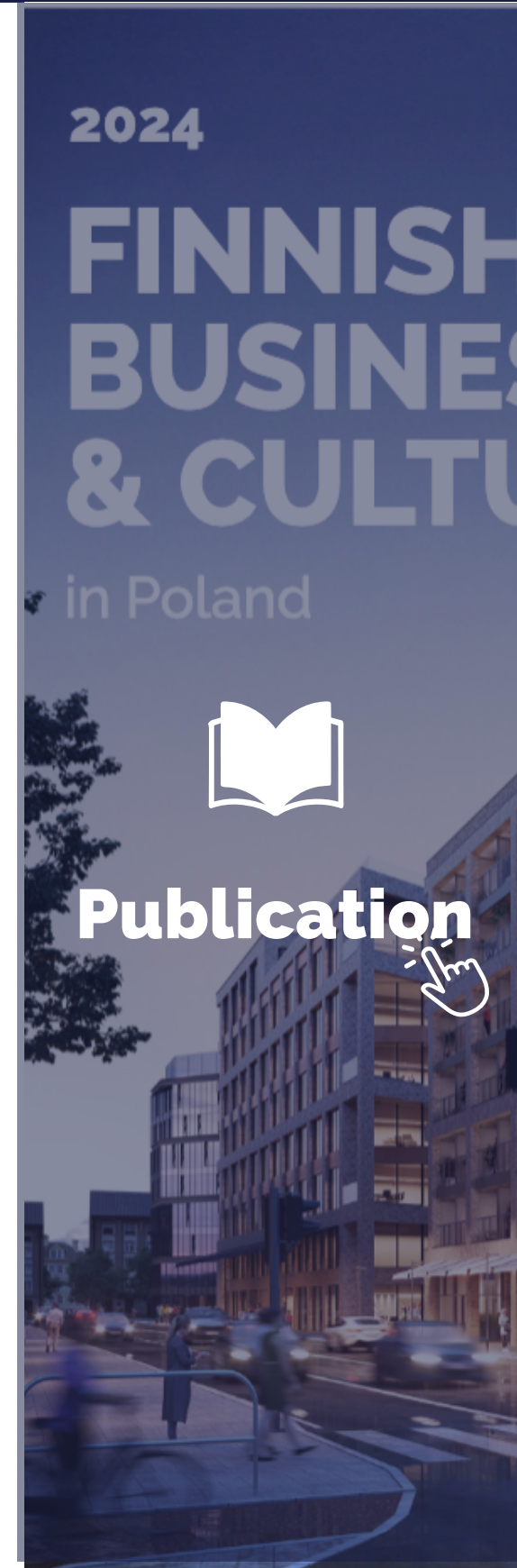
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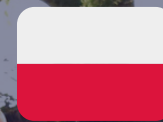
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Publication



Newsletter



Newsletter

