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I. What is the National Development Concept 2050?

The National Development Concept 2050 (NDC 2050) is the first national long-term vision document setting out Poland's strategic development pathways up to the mid-21st century. It identifies possible trajectories and key challenges, making use of foresight, projections, and scenario analysis. Its purpose is to help public administration integrate sectoral policies, shape them with greater flexibility, and prepare the state for the volatility and uncertainty of geopolitical, economic, social, and environmental conditions.

Through broad stakeholder engagement, including the academic community, NDC 2050 establishes a new standard in strategic planning and fosters a culture of long-term thinking within public administration. It allows for the early detection of weaknesses in public policies and supports the design of flexible and resilient solutions.

NDC 2050 provides an analytical foundation for medium-term policies, including regional and urban policy as well as sectoral strategies. It does not set objectives or define implementation measures; rather, it functions as a strategic diagnostic framework and indicates long-term orientations for action. The operationalisation of its challenges will be carried out in other strategic documents.

II. What does the NDC 2050 include?

- an analysis of global and European megatrends shaping Poland's development;
- a vision of Poland in 2050: a modern, resilient, green, and cohesive state that guarantees a high quality of life for its inhabitants;
- four development scenarios supporting the preparation of public policies for different future pathways;
- four main long-term challenges: a socially inclusive transformation addressing demographic change and housing, a modern economy respectful of the environment, a resilient and secure state, and a sustainable spatial structure;
- key conclusions that provide the foundation for programming development policy in the medium term.

III. Development trends

The analysis of trends conducted during the preparation of the National Development Concept 2050 was intended to provide a robust analytical basis for formulating the Vision of Poland in 2050, defining development scenarios, and identifying the key challenges for public policy. This analysis captured long-term global and European processes shaping Poland's social, economic, geopolitical, environmental, and spatial context, while also clarifying their implications for the country's future.

NDC 2050 identifies six megatrends with the greatest impact on Poland's development:

1. The emergence of a new economy

Technological transformation, the shortening of supply chains, and the growing importance of quality of life as a measure of progress are redefining the way economies function. By 2050, global GDP may double compared to 2020, although the fastest growth rates are expected in Asian economies. In Poland, the share of industry in GDP is projected to decline, while the role of advanced technology-based services will grow. The competitiveness of the Polish economy will depend on the degree of its digitalisation, automation, and innovation. In 2022, Poland ranked fourth from the bottom among European countries in the Digital Economy and Society Index (DESI).

2. Technological acceleration

Advances in AI, automation, the Internet of Things, and biotechnology are set to profoundly transform the labour market, public administration, and models of social life. Estimates suggest that by 2030, as many as 30% of current jobs in Europe could be automated. In Poland, the share of employees working in the ICT sector grew from 1.5% in 2011 to around 4% in 2021, and this trend is expected to intensify. At the same time, in 2023, only about 3% of companies in Poland had adopted at least one AI technology – the third-lowest figure in Europe and almost half the EU average.

3. Growth of global social challenges

Depopulation and population ageing are among the most pressing challenges. By 2050, Poland's population may decline to around 33 million, while the share of people aged 65 and over is projected to reach about 30% (up from 18% in 2022). The fertility rate dropped from 1.41 children per woman of working age in 2010 to 1.26 in 2022. Income inequality has also widened – in 2021, Poland's Gini coefficient stood at 29 (on a scale from 0 to 100, where higher values indicate greater inequality). The trend of social polarisation persists. At the

same time, the overall education level of the population has improved significantly: the share of adults with low educational attainment in Poland decreased from 20.2% in 2002 to 5.7% in 2023.

4. Accelerating environmental change

Climate change has raised the average temperature in Poland by 2°C over the past 70 years. By 2050, the risks of droughts and extreme weather events are expected to intensify. Poland ranks among the countries with the lowest water retention in Europe – capturing only about 6.5% of rainfall – which further increases the risk of shortages. The impacts of climate change are becoming increasingly severe. In the past two decades, losses caused by extreme weather events in Poland amounted to PLN 115 billion.

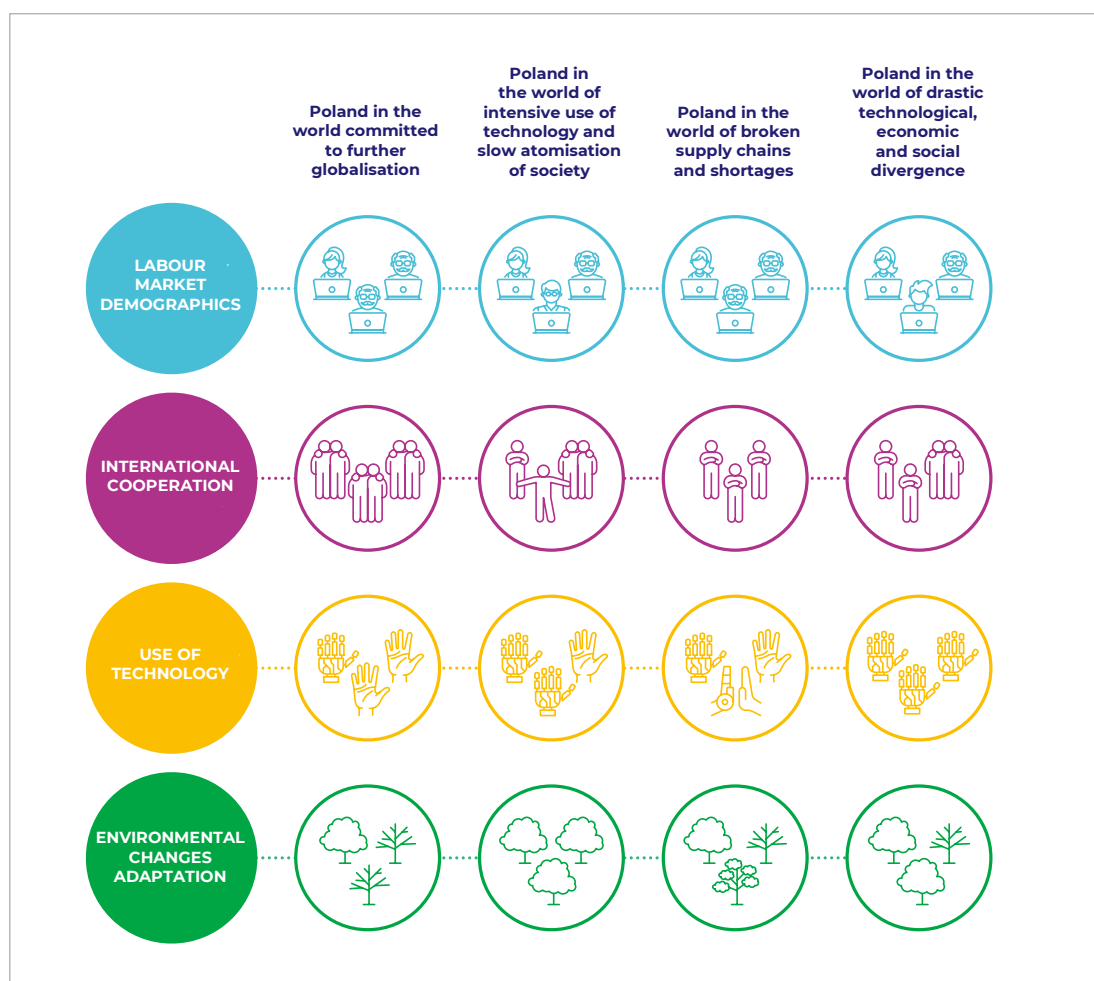
5. Spatial reorganisation

Urbanisation and suburbanisation are driving urban sprawl. In Poland, functional urban areas already cover more than 50% of the territory and are home to around 70% of the population. At the same time, rural areas are increasingly performing non-agricultural functions, including recreation, logistics, and production. The share of built-up and urbanised land in Poland grew from 9% in 2002 to 13% in 2020. This process leads to the fragmentation of open spaces, including land of high agricultural value. The expansion of ventilation wedges and ecological corridors is also being encroached upon, diminishing landscape and aesthetic qualities. In some areas, this trend further limits access to public services.

6. Transformation of the global order

By 2050, Asia's share of global GDP is projected to exceed 50%, signalling a lasting shift in the centre of gravity of the world economy. At the same time, the number of conflicts is rising – from 30 ongoing wars and armed conflicts in 2010 to more than 50 in 2022. Energy, technological, and food security are gaining growing importance. Between 2008 and 2025, Poland's position in the Global Peace Index fell from 24th to 36th place.

IV. Scenarios



NDC 2050 sets out four scenarios that serve as a tool for preparing public policies to address different configurations of the global environment. They are intended to help Poland unlock its development potential and provide living and working conditions that correspond to the expectations and aspirations of society, while being commensurate with civilisational challenges and opportunities. The scenarios do not forecast specific development paths for the country, nor do they attempt to predict the future. Instead, they constitute a starting point for strategic reflection and for designing resilient and adaptable state responses that can sustain long-term development objectives irrespective of external dynamics. Each scenario is built around two key variables – societal openness and technological development – combined in varying ways.

1. Poland in a world of continued globalisation

- Key variables: high economic and political openness; moderate technological development; strong international cooperation (EU, NATO); continuation of globalisation.
- Poland's responses: actively strengthening European and transatlantic integration; developing the silver economy and adapting to an ageing population; investing in renewables and nuclear energy; supporting medium-sized and small cities; deepening local government reforms.

2. Poland in a world of advanced technology

- Key variables: rapid technological progress (AI, automation, biotechnology); high global innovation capacity; growing role of the digital economy.
- Poland's responses: introducing a guaranteed basic income; expanding the digital economy and smart cities; providing strong support for research and start-ups; advancing a sufficiency-oriented economy and achieving full climate neutrality; reforming education with a focus on digital and social competences; adapting to increasing social polarisation.

3. Poland in a world of shortages

- Key variables: resource and energy crises; disrupted supply chains; weakening international cooperation; rising protectionism.
- Poland's responses: building self-sufficiency; advancing the circular economy; supporting regenerative agriculture and water retention; reusing and densifying urban space while reducing reliance on private transport; strengthening public administration and civic participation.

4. Poland in a world of stark disparities

- Key variables: deep global divides; widening socio-economic and technological inequalities; selective migration; intensifying competition for talent.
- Poland's responses: developing local multifunctional centres; accelerating the energy transition (renewables and nuclear); attracting specialists through dedicated talent policies; creating flexible healthcare and social support systems; reinforcing cybersecurity; deploying AI-assisted public administration.

V. Challenges

The challenges outlined in NDC 2050 identify the key areas in which Poland should act to respond to global, European, and national trends, mitigate risks, seize opportunities, and strengthen resilience. They build on the previously identified trends and development scenarios. They are not a catalogue of current problems or a legislative agenda; instead, they define the directions of strategic transformation, the implementation of which can significantly shape the country's territory, economy, and society, contributing to the achievement of the desired change.

1. A socially inclusive transformation

The central task is to build a cohesive and open society able to adapt to accelerated digitalisation, population ageing, and increasing migration. In view of the projected demographic decline and ageing, it is necessary to implement long-term pro-natalist and family-oriented policies, together with measures to support longer working lives, social integration, and elderly care. Profound reforms are also required in the education system (focusing on future competences and emotional intelligence), housing policy (ensuring access to housing as a right rather than a commodity), healthcare (strengthening prevention and mental health), and migration policy (attracting settlement-oriented migrants).

2. A modern economy respectful of the environment and climate

The core challenge is to transition towards a low-emission economy based on circularity and sufficiency, while at the same time ensuring conditions for continued growth and

competitiveness. It is crucial to promote innovation and harness the opportunities arising from rapidly accelerating technological change, particularly in automation, digitalisation, and emerging technologies. At the same time, the environment provides non-negotiable limits to development, and technological progress must not come at its expense. Increasing water retention through blue-green infrastructure, river renaturation, wetland restoration, water-saving technologies, and the protection of water resources from pollution is indispensable. The restoration of natural resources and biodiversity is equally essential. Achieving climate neutrality is of strategic importance, with a significant increase in the share of renewables in the energy mix required. Other priorities include transforming agriculture towards a regenerative and sustainable model, reducing emissions in transport and construction, and expanding local, community-driven energy models.

3. A resilient state with a strong position in Europe and globally

Poland faces the challenge of enhancing systemic resilience – political, economic, technological, and energy-related – in a context of intensifying geopolitical crises. Raising expenditure on R&D (currently around 1.4% of GDP compared to the EU average of 2.2%) and advancing high technologies are critical to competitiveness. Key priorities include investments in energy security, cybersecurity, and reinforcing Poland's role within the EU and NATO. This requires developing defence capabilities and modernising and expanding the armed forces. Advancing dual-use technologies is of particular importance. Building an effective crisis management and civil protection system also remains essential.

4. Sustainable spatial development balancing human and environmental needs

This challenge concerns the responsible use of space and the protection of natural capital. Urbanisation already covers more than 50% of the national territory, creating strong pressure on agricultural and natural land. Priorities include focusing on brownfield redevelopment, expanding blue-green infrastructure, restoring rivers and wetlands, combating urban sprawl, and creating multifunctional spaces resilient to climate change. It is equally important to prevent spatial conflicts and to strengthen critical infrastructure. Looking towards 2050, it will be necessary to implement principles of a sufficiency-oriented economy and to rebuild local spatial linkages.

VI. Key conclusions

The key conclusions of the NDC 2050 highlight the most important areas requiring long-term state intervention. They provide a basis for focusing action in the coming decade, supporting the development of a coherent policy framework and ensuring a more effective allocation of public resources.

1. Strengthening state governance

A new model of strategic thinking is needed, based on continuous data analysis and foresight, the integration of information systems, and a shift from sectoral divisions towards inter-ministerial cooperation. Strengthening the role of local authorities and modernising their financing are essential, as is the broader inclusion of civil society in decision-making processes.

2. Adapting the development paradigm to global challenges

There is a need to move beyond a model of development measured solely by GDP growth towards one that incorporates social, intergenerational, and environmental justice. The natural environment and public space should be treated as critical resources. It is essential to reduce pressures on the environment sustainably, including greenhouse gas emissions, and to strengthen public awareness of responsible consumption.

3. Enhancing the state's resilience to threats and crises

It is necessary to increase investment in research and the development of breakthrough technologies (including dual-use), diversify energy sources, and improve energy efficiency. Protecting biodiversity and critical infrastructure, building effective crisis management systems, and strengthening international cooperation – including Poland's role in the EU and NATO – are equally important. These conclusions also point to the need to ensure food and health security.

4. Elevating the role of spatial planning and territorial governance

Spatial planning must be fully integrated with development policy, embedding the principles of sustainable development into territorial management. Priorities include minimising spatial conflicts, expanding blue-green infrastructure, and applying advanced technologies in planning processes.

5. Comprehensive development transformation

This includes modernising education (future skills, flexible adult learning), advancing the energy transition, and adapting the economic model to enhance competitiveness and independence. Equally important is the deployment of modern technologies in health, administration, transport, agriculture, and construction, alongside steering scientific research towards strategic challenges.

6. Strengthening social cohesion

The objective is to counteract social and territorial exclusion and polarisation. It is essential to support the social economy, reduce regional disparities in development opportunities, pursue a just transition, and promote a culture of lifelong learning.

7. Modernising the public finance system

There is a need to establish public finance management mechanisms that enable the pursuit of strategic objectives while maintaining fiscal balance. Transparency in financing, greater efficiency of public spending, and improved allocation of resources to development priorities are crucial – particularly in the context of a possible reduction in cohesion policy funding for Poland.

VII. How was the NDC 2050 developed?

Work on the NDC 2050 was carried out between September 2021 and July 2025 by a consortium composed of the Ministry of Development Funds and Regional Policy, the Institute of Environmental Protection – National Research Institute, and the Institute of Urban and Regional Development, as part of the Gospostrateg project. The process applied scenario planning, meta-analysis, Delphi studies, and econometric analysis.

A broad range of stakeholders were engaged: local governments, the academic community, businesses, NGOs, ministries, and citizens (through public hearings, debates, expert panels, and workshops). The document was subject to public consultation, and an environmental impact assessment was conducted. The NDC 2050 was adopted by the Council of Ministers on 25 July 2025 (Resolution No. 93).

To view or download the full documents (available in Polish), please scan the QR code or click on the document name.

National Development Concept 2050



Attachments to the National Development Concept 2050

Attachment 1 – Development Trends with a 2050 Perspective



Attachment 2 – Development Scenarios with a 2050 Perspective



Attachment 3 – Methodology for the Preparation of the NDC 2050



Information about the work on the NDC 2050 and the Gospostrateg project, along with a collection of all studies produced during this process:

Website dedicated to the National Development Concept 2050



Page about the National Development Concept 2050 on the Ministry of Development Funds and Regional Policy's website



Complete set of maps developed during the preparation of the NDC 2050:

Poland 2050 Atlas



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