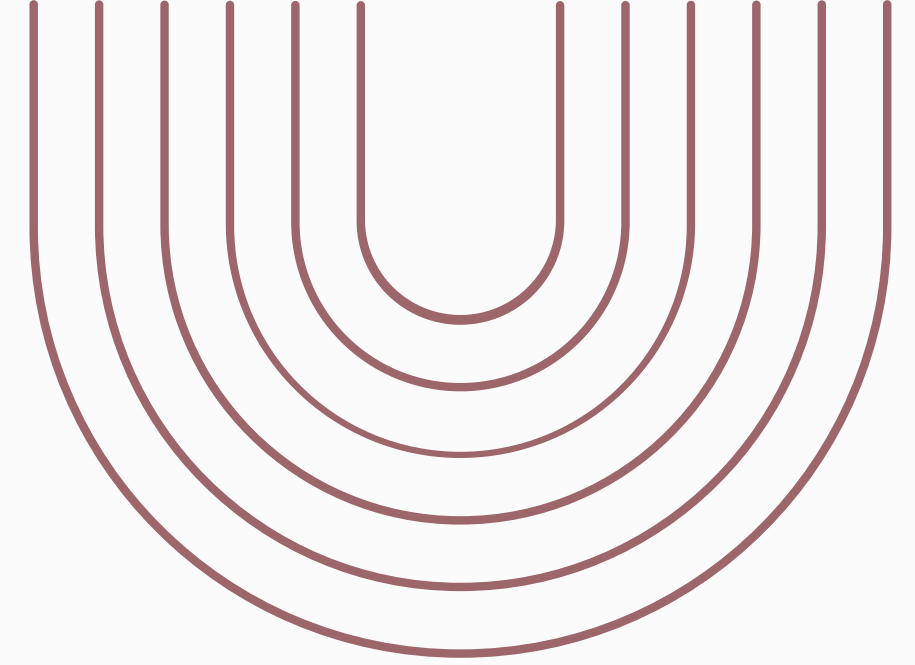


# SLOVAKIA'S ENERGY SECTOR TRANSITION

*Patrik Gažo*  
*Rome, 16.6.2023*



**01.** MAIN CHARACTERISTICS OF THE COUNTRY'S ENERGY SYSTEM

**02.** REGIONAL AND TERRITORIAL EFFECTS OF THE ENERGY TRANSITION

**03.** THE ROLE OF INDUSTRIAL RELATIONS AND SOCIAL DIALOGUE



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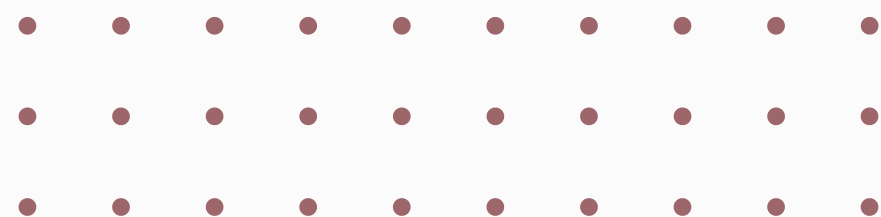
# ENERGY MARKET IN SLOVAKIA

- Dominated by a few large companies
- Accounts for 4% of the GDP, one of the highest shares among EU countries
- Heavy reliance on energy imports, particularly from Russia

Table 2 Energy imports dependency, Slovakia

	1990	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Import Dependency [%]</b>	77,10%	65,10%	64,40%	65,90%	61,60%	60,80%	62,10%	60,10%	60,60%	64,80%	63,70%	69,80%	56,30%
<b>of Solid fossil fuels</b>	78,10%	80,20%	75,70%	81,70%	89,70%	80,60%	83,30%	84,50%	83,30%	87,80%	91,90%	92,20%	86,20%
<b>of Hard Coal</b>	99,80%	103,80%	91,90%	98,00%	105,90%	98,40%	98,50%	97,50%	97,20%	100,10%	100,90%	102,70%	97,30%
<b>of Oil and petroleum products</b>	100,30%	92,50%	98,40%	100,90%	99,40%	101,00%	102,50%	100,60%	102,00%	97,50%	101,30%	101,30%	102,00%
<b>of Crude and NGL</b>	99,10%	97,60%	99,90%	100,20%	99,30%	101,00%	101,10%	99,30%	100,70%	99,50%	100,00%	100,50%	101,40%
<b>of Natural Gas</b>	105,20%	98,80%	99,90%	104,80%	89,80%	95,30%	104,80%	95,10%	92,80%	105,60%	89,60%	136,60%	88,10%

Source: Eurostat (nrg\_ind\_id)

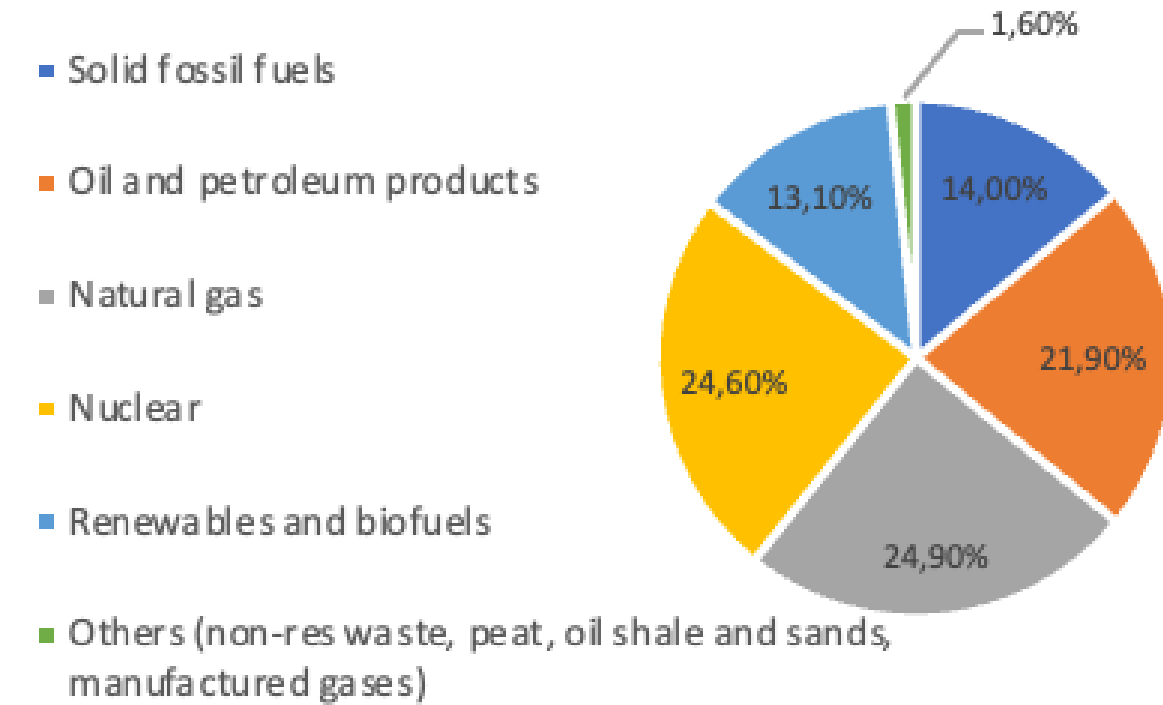


# ENERGY MIX

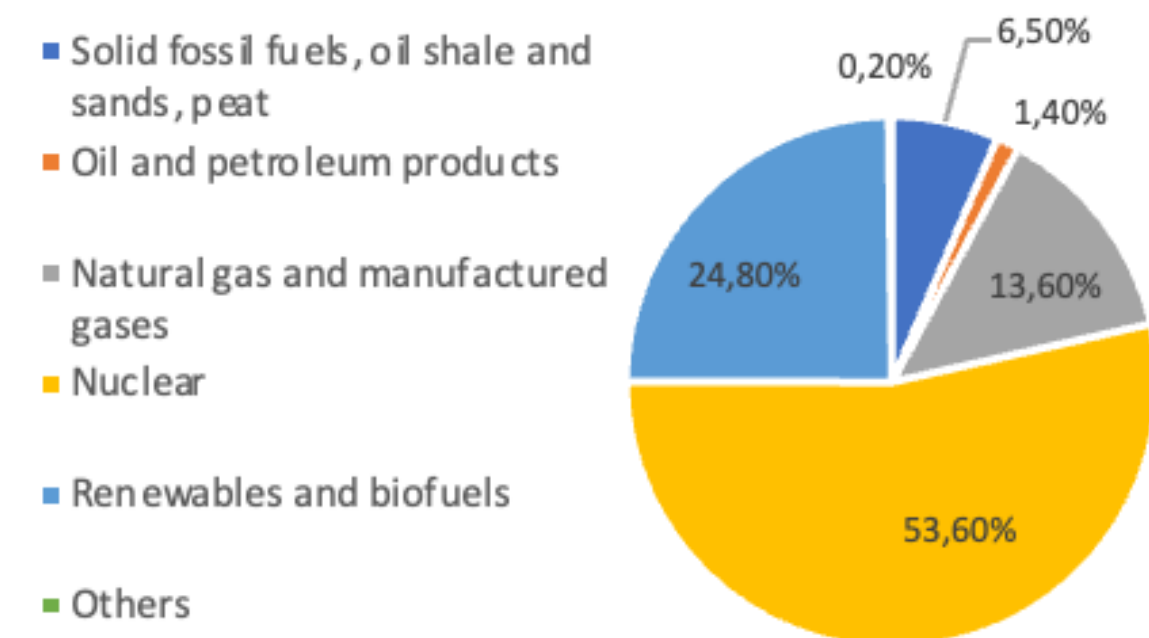
- Nuclear and fossil fuels dominate
- Nuclear power plants contribute to a quarter of the energy mix
- Gas accounts for a quarter, oil and petroleum products for 22%
- Renewable energy sources (RES) make up 13% of the energy mix
- Majority of RES comes from hydropower (75%)
- Solar energy (18%) and biomass (7%)
- Wind and geothermal energy underutilized but have potential for development



## Energy mix 2020



## Electricity mix 2020



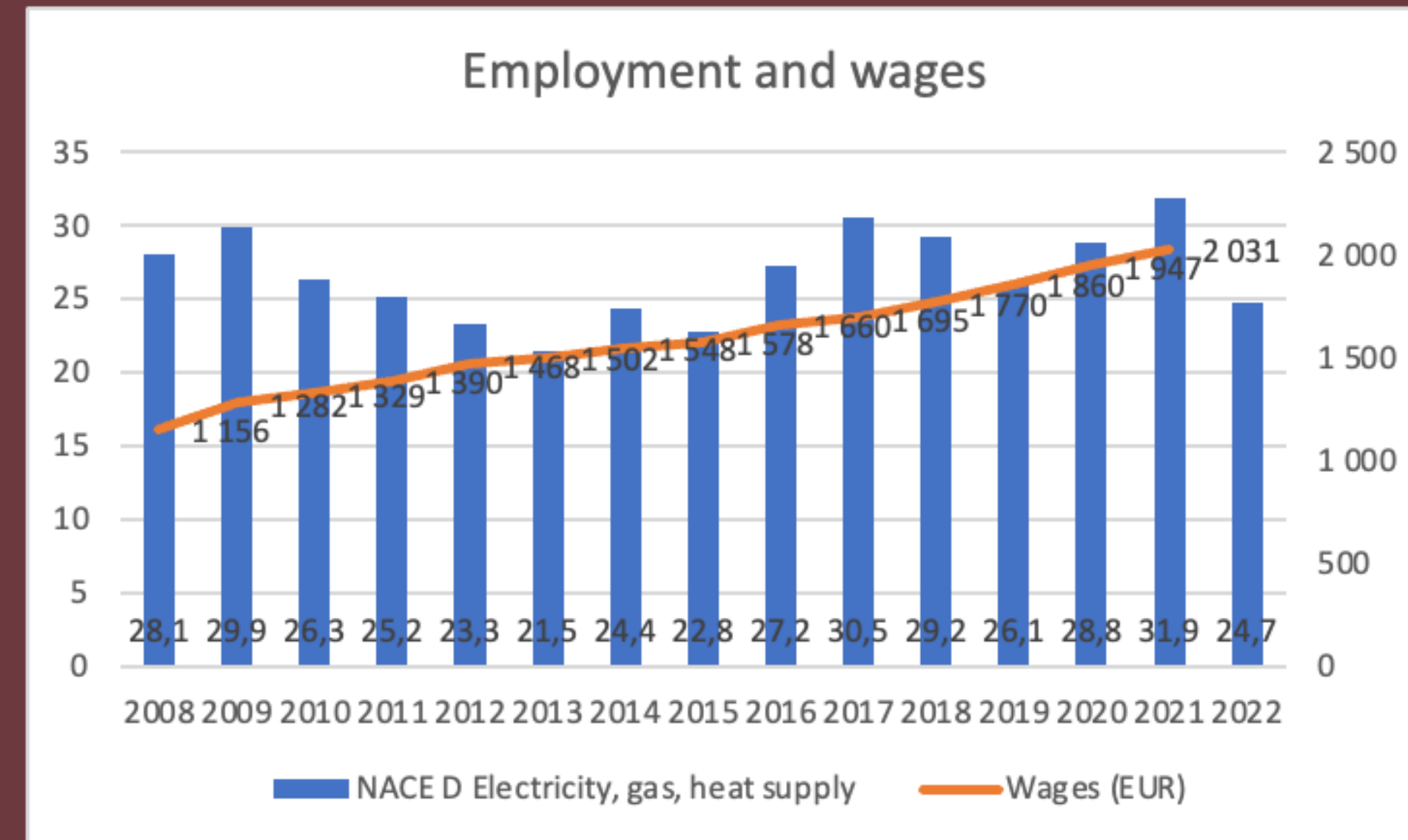
# CHALLENGES OF ENERGY POLICIES IN SLOVAKIA

- Initial plans to transition coal-burning heating generation stations to gas
- Recent war event caused reconsiderations and coal imports continue
- Long-term state support for coal power plants and mining set to end in 2023
- Fragmented and disconnected policies lacking long-term strategies
- Legislation supporting solar energy for households missing
- Limited discussions on wind energy
- However, dynamic situation in the field




# EMPLOYMENT IN THE ENERGY SECTOR

- Employs approximately 1.34% of the country's workforce
- Provides jobs for 20,000 to 30,000 employees
- Average wage in 2022 was €2031, surpassing the national average



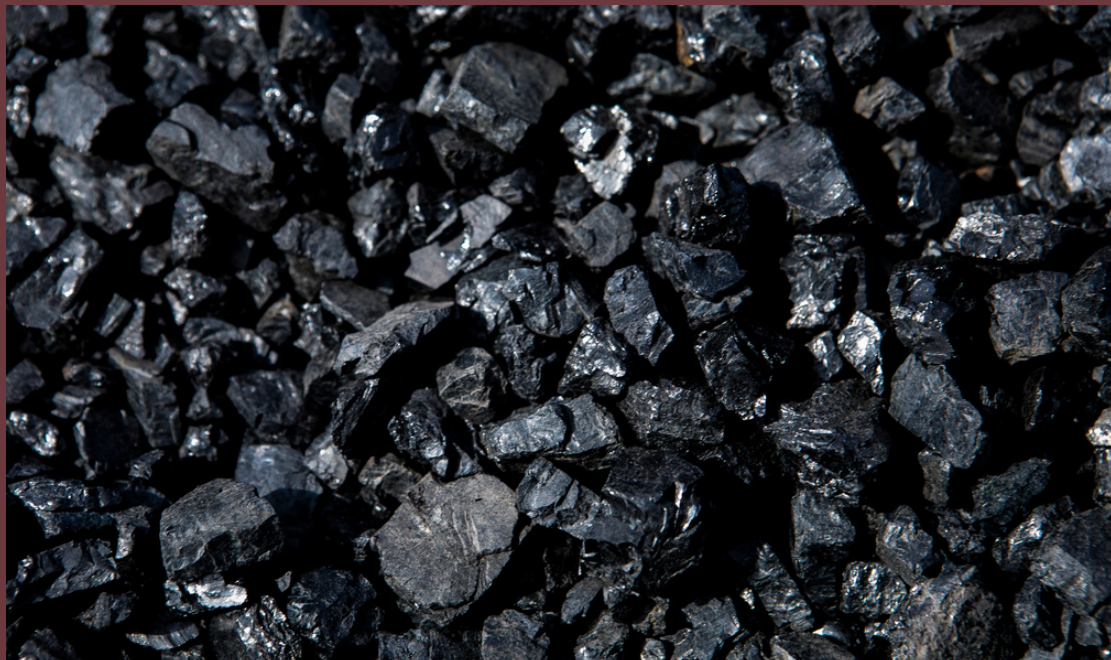


# REGIONAL AND TERRITORIAL EFFECTS OF ENERGY TRANSITION

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- Stable nuclear energy dominates the industry in Slovakia, reducing the need for a major industry-wide transformation.
  - However, local impacts of the transition are significant, particularly related to the closure of coal-burning power plants and heating companies.
  - Job losses are expected due to these closures.
  - On the other hand, new renewable energy projects such as solar, geothermal, and wind installations provide opportunities for employment generation.

# REGIONAL AND TERRITORIAL EFFECTS OF ENERGY TRANSITION

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## CLOSURE AND TRANSFORMATION OF COAL-BURNING POWER PLANTS IN SLOVAKIA

- Two coal-burning power plants in Slovakia are scheduled for closure.
- One of the plants will cease operations by January 2024.
- A restructuring program is already in place to manage the closure's impact.
- The program aims to address the consequences for 250 employees in the coal mining region.
- Additionally, coal mining operations in the region will be discontinued, affecting a total of 2000 employees.
- Furthermore, there are plans to close another coal-burning power plant in Vojany, located in Eastern Slovakia, in the upcoming years.
- The Vojany power plant is expected to be transformed into a small-scale nuclear power plant.





# REGIONAL AND TERRITORIAL EFFECTS OF ENERGY TRANSITION

- Plans are underway in Košice to transition the coal burning power plant to geothermal energy.
- However, the conflict in Ukraine has caused delays in the full implementation.
- Coal is still partially burned, especially during the winter season.
- The Geoterm project is expected to become fully operational by 2026.
- The transition is expected to impact employment, primarily in terms of the need for retraining and requalification of workers.



# REGIONAL AND TERRITORIAL EFFECTS OF ENERGY TRANSITION

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## Labor Representation and Employment Implications:

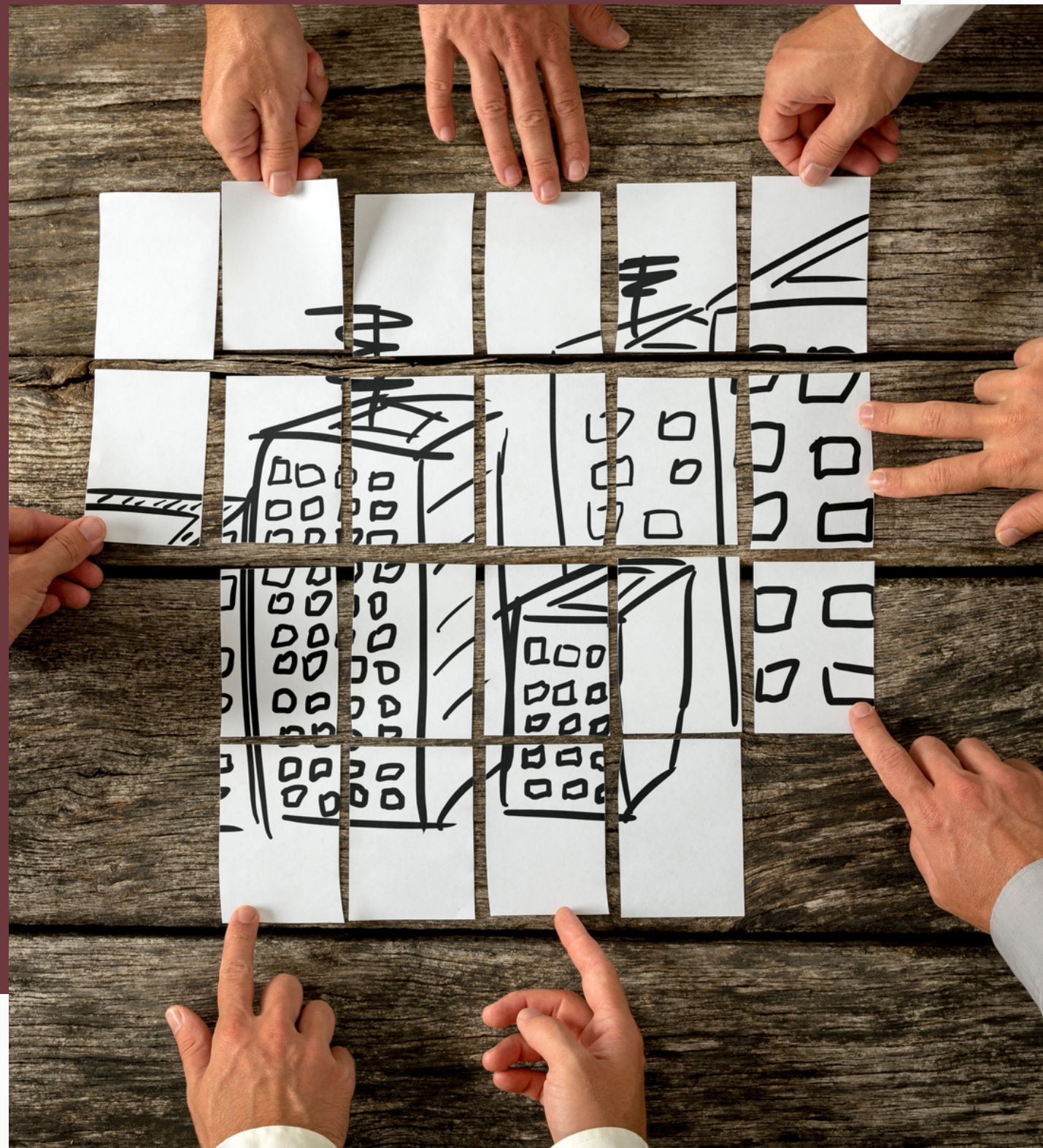
- Limited involvement of labor unions in regional decision-making
- Efforts to ensure labor representation in regional councils in Košice
- Heating industry as an opportunity for stabilizing the local economy and creating employment



# REGIONAL AND TERRITORIAL EFFECTS OF ENERGY TRANSITION

Sustainable energy practices and opportunities for regions:

- Energy communities have emerged as a notable trend, facilitating collaboration and electricity sharing among local governments.
- By incentivizing local energy initiatives, the Ministry of Labor, Social Affairs, and Family (MoLSAF) can contribute to income generation and the optimal utilization of local energy resources.
- Supporting these initiatives requires reskilling and upskilling individuals in various occupations to effectively participate in the energy transition.
- Focus on energy efficiency measures and utilization of local renewable resources.







# ROLE OF INDUSTRIAL RELATIONS AND SOCIAL DIALOGUE

Industrial relations and social dialogue primarily centered around major energy sector companies

Around 60% of sector employees covered by collective agreements

Impact mostly limited to company level, partial influence at sector level

Decentralized nature reduces opportunities for broader sector debates

National-level social dialogue tends to be reactive rather than proactive

Tripartite setting not ideal for introducing and tackling emerging sector issues

**Social dialogue plays a limited role in current context**

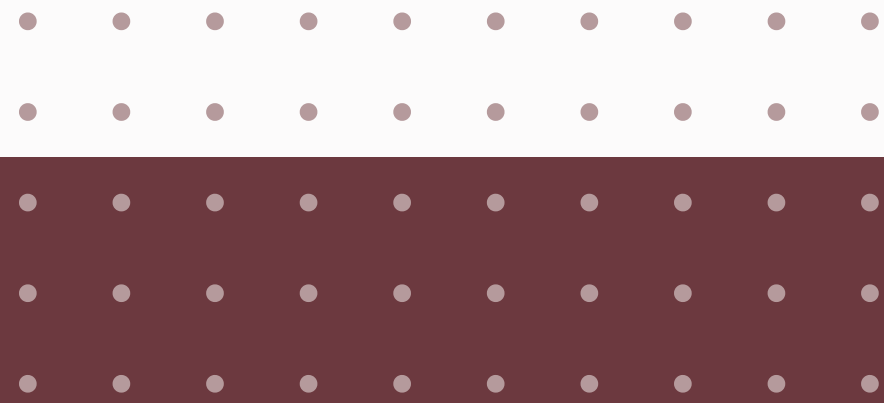


# ENSURING A JUST TRANSITION IN SLOVAKIA



- **01** Comprehensive approach considering impact on employment, worker safety, local economies, and vulnerable groups
- **02** Incorporating concerns into collective agreements, policy frameworks, and business models
- **03** Enhanced coordination and cooperation among ministries and stakeholders
- **04** Involvement of trade unions in decision-making processes and dialogue on just transition initiatives
- **05** Need for long-term strategies, policy support, and stakeholder cooperation





# THANK YOU

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