

OSGE's approach to Industry assistance for new and embarking organizations

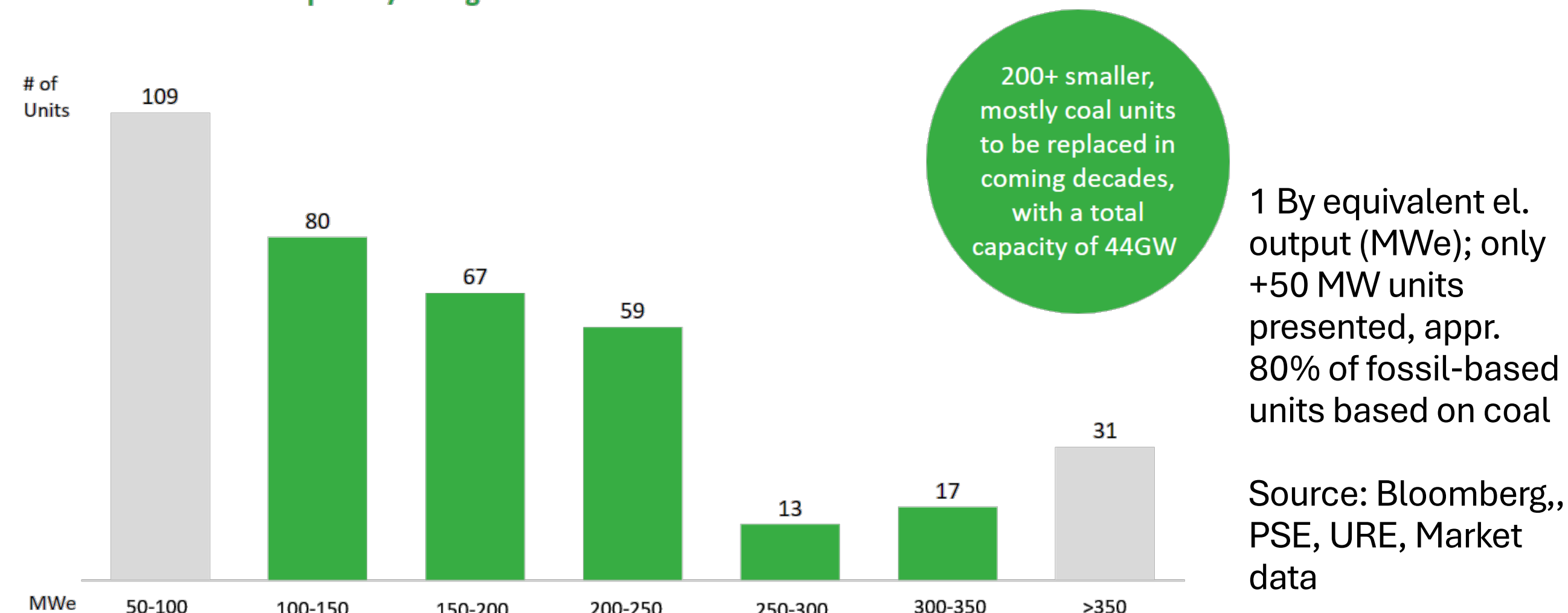
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ID #18

Energy transformation challenges in Poland

Mid-size coal units dominate in the Polish energy system

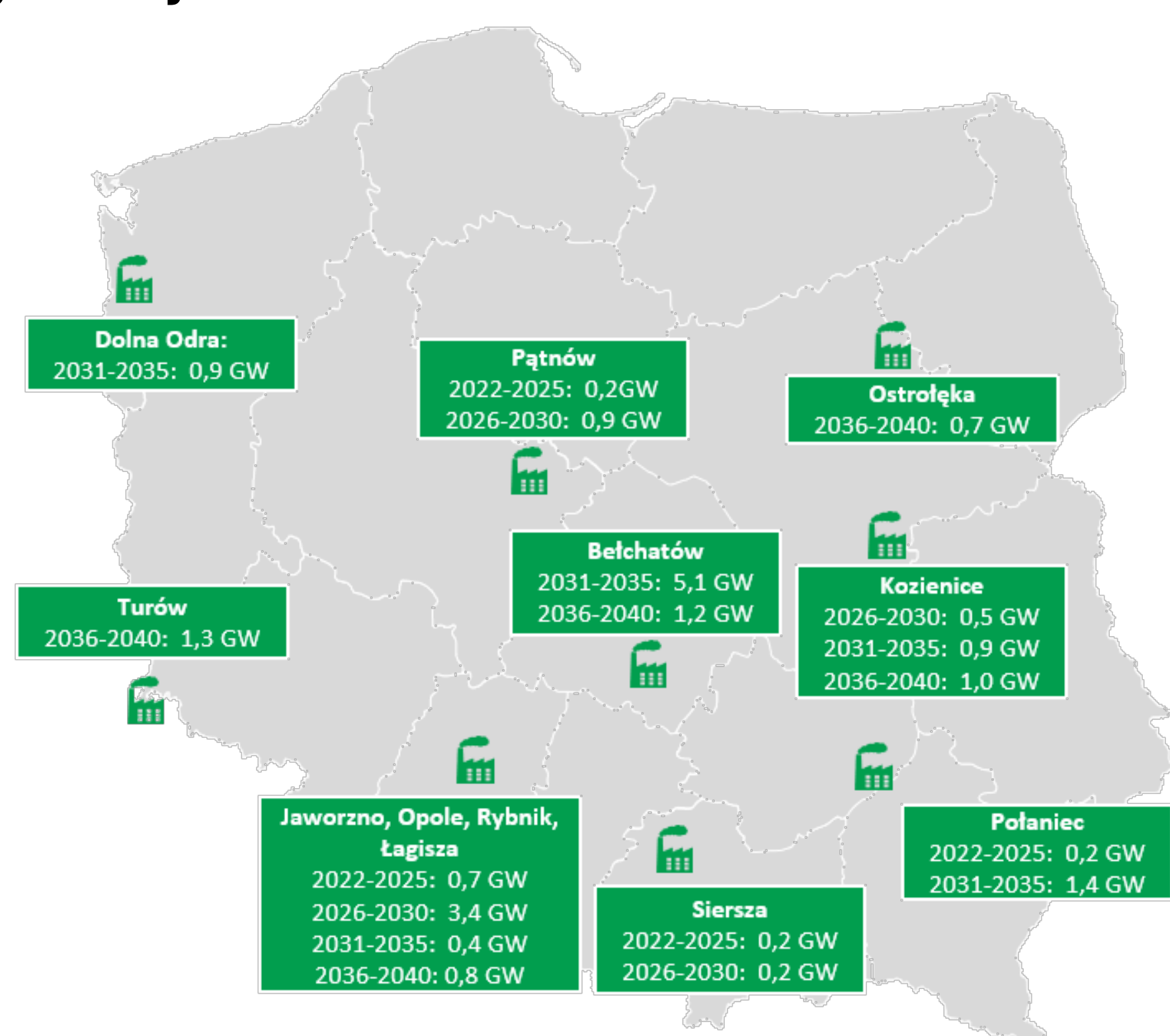
SMRs fit to replace 100-350 MW fossil-based units

Number of fossil-based power/heat generation units¹

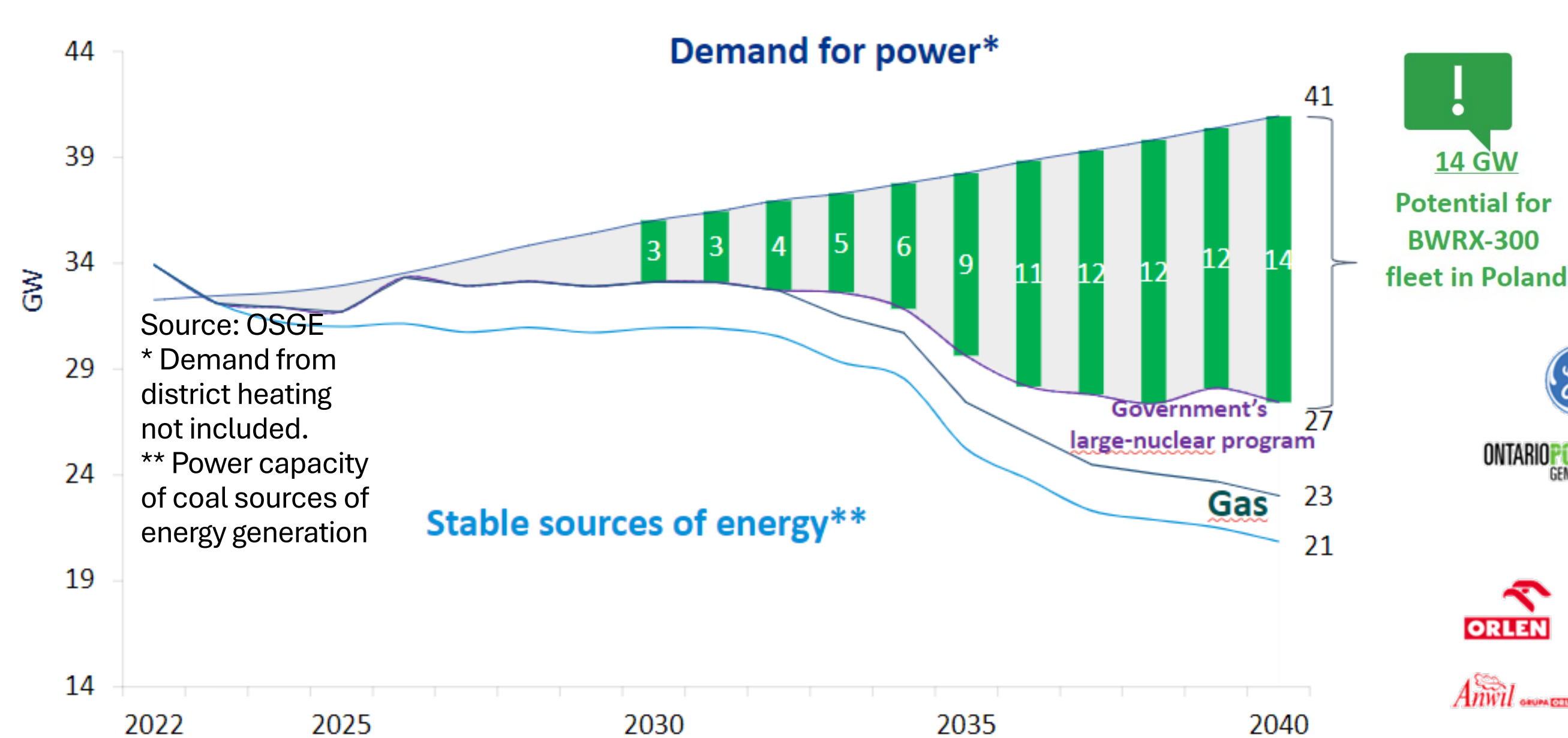


Large-scale power decommissioning in coal-fired energy system by 2040

Source: PEP 2040

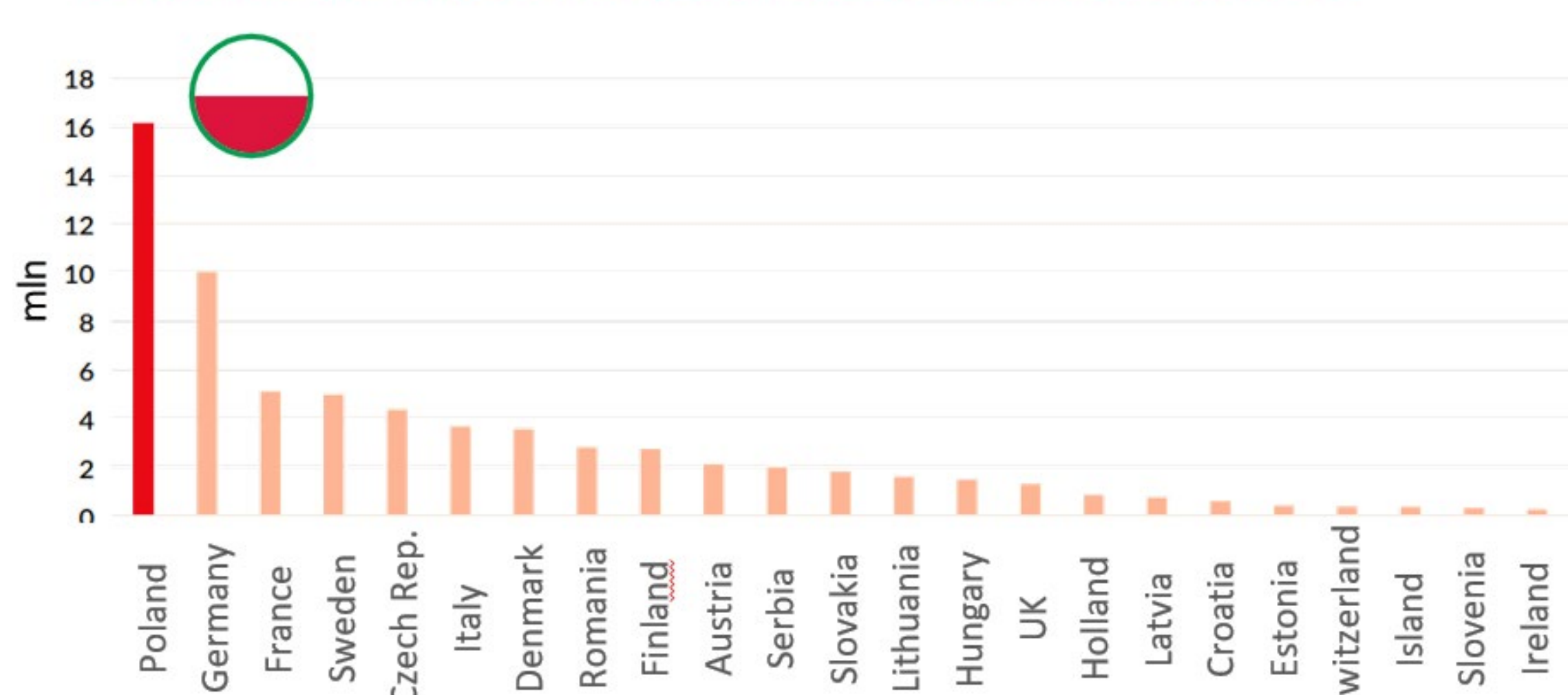


Demands for baseload power



SMRs – possibilities of meeting the needs of heating in Poland

Poland has the largest number of system heat users in the EU



Industry assistance for new and embarking organizations

In today's dynamic economic environment, developing new nuclear organizations is becoming increasingly important. **Industry assistance** for these ventures is crucial to support the development and ensure the safe and effective operation of this advanced technology. It also plays an important role in shaping and maintaining the nuclear sector's ability to meet growing energy demand efficiently and sustainably.

Here, the focus will be on analyzing the **challenges and opportunities** associated with industry assistance for new and embarking organizations in the nuclear energy sector.

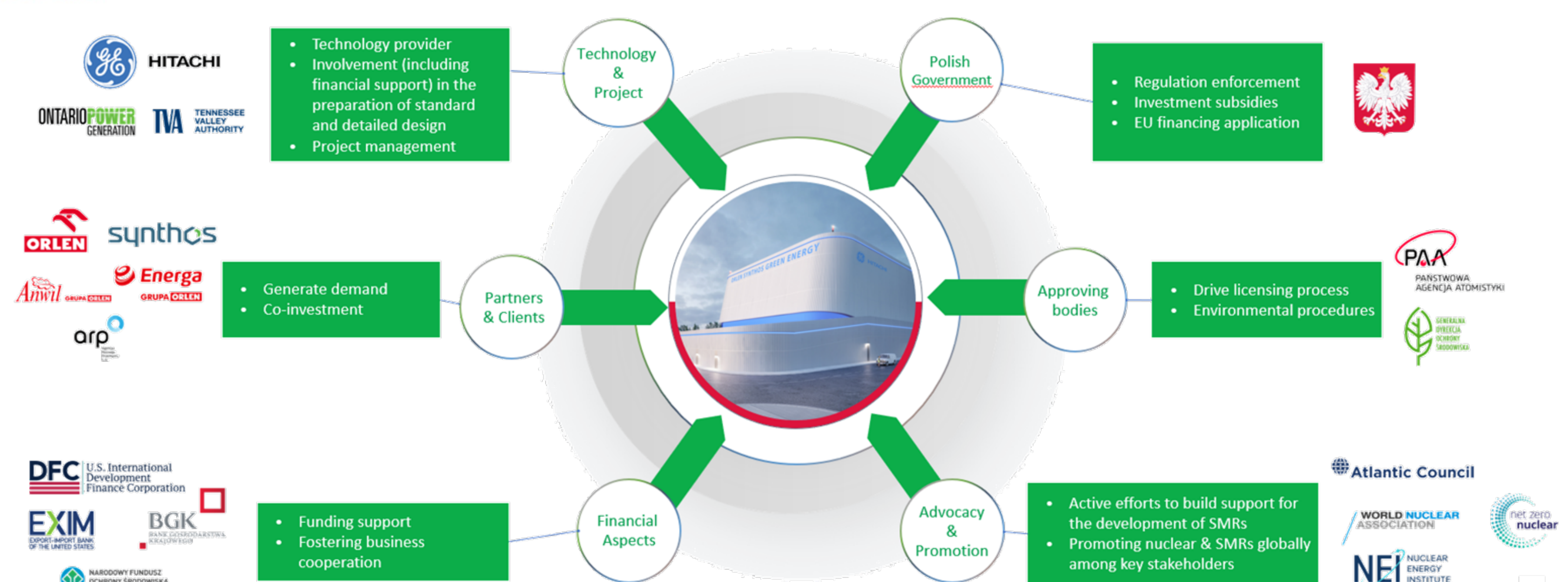
Challenges

- 1. Complexity of the technology** and processes associated with it – **support:** specialist training, engineering consulting and the provision of expert experience
- 2. Country regulations** related to operation of nuclear power plants and energy production – **support:** adaptation to regulations, active participation in the process of creating new regulations and industry standards, updating existing ones
- 3. Financing** – **support:** access to specialized investment funds, cooperation with potential investors, support in the process of obtaining public and private funds
- 4. Public opinion** plays an important role in acceptance and support for nuclear projects – **support:** communication, educational strategies, involvement of local communities in the decision-making process

Opportunities

- Potential for the **development of new generation technologies** - such as small modular reactors (SMR) or IV generation reactors.
- International **cooperation** - can accelerate technological progress and bring innovative solutions to market. OSGE is also in close cooperation with OPG (Ontario Power Generation), which plans to build FOAK (first of a kind), TVA from the USA, and GE Hitachi (supplier of BWRX-300 technology).
- Exchange of **experience** – with other facilities with long-term experience in operation of nuclear power plants.

ORLEN Synthos Green Energy (OSGE)'s approach



Summary

- Our company, ORLEN Synthos Green Energy (OSGE), which plans to implement a fleet of small modular reactors (SMR) in the technology BWRX-300 developed by GE Hitachi, also must face these challenges in daily work.
- Industry assistance to new and embarking nuclear organizations covers several key areas such as **technology, regulation, financing, public acceptance and innovation development**.
- With the right support and coordinated action, these organizations can contribute to the sustainable development of the energy sector and meet the challenges of the future of energy production.