

Call for Evidence

Small modular reactors – future development and deployment in Europe

SMR Stakeholders' Forum - 27 January 2026

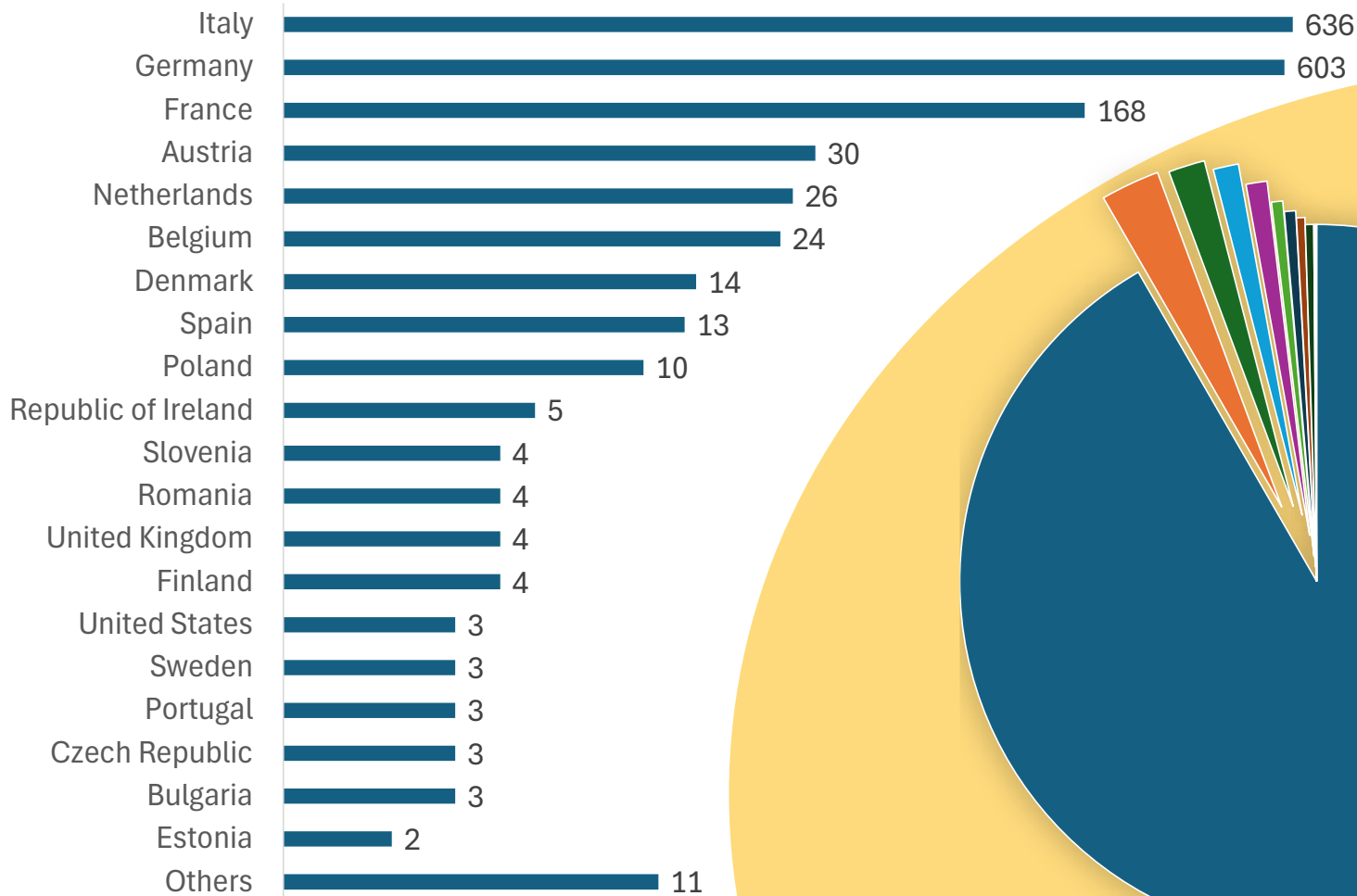
Your view matters

Call for Evidence – process

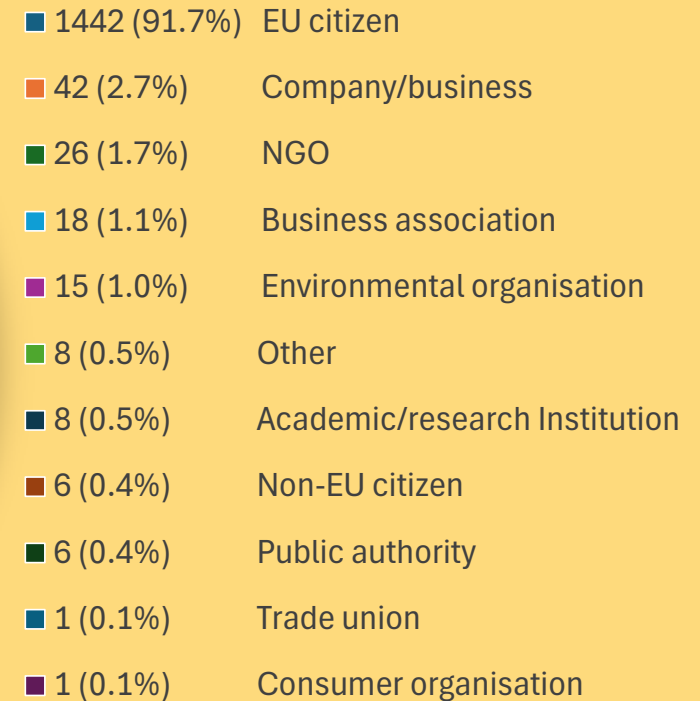


Call for Evidence – statistics

By country of respondents

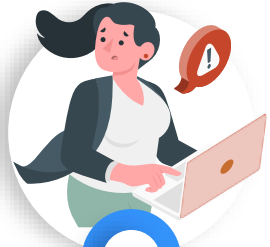


By category of respondents



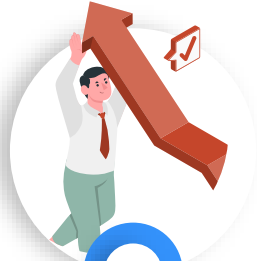
Your view matters

Call for Evidence – topical areas



EU objectives

Decarbonisation,
Energy security,
Strategic
autonomy

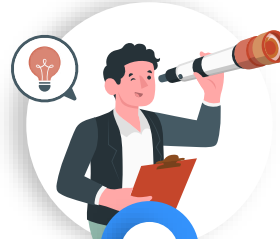


Nuclear fuel cycle & supply chain

Factory
manufacturing,
modularity,
waste
management



Nuclear safety and regulatory framework



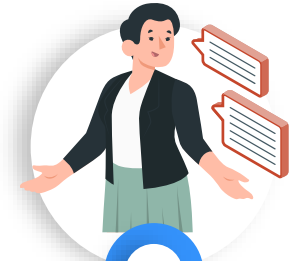
Research, development and innovation



Economic viability, financing, industrial competitiveness



Skills and public engagement



International cooperation



Opportunities

- ❑ Reliable **24/7 low-carbon energy**; supports renewables and grid stability
- ❑ **Versatile applications**: heat, data centres, H2, maritime propulsion
- ❑ **Modular, factory-built design** reduces risk, shortens deployment and eases maintenance
- ❑ NZIA support may **accelerate permitting and EU manufacturing**
- ❑ **Reuse fuel, reduce long-lived waste** and enhance sustainability
- ❑ **Industrial/geopolitical strategy**; EU needs coordinated response



Challenges

- ❑ **Limited near-term climate impact; high costs and slow deployment**
- ❑ May **divert resources from faster solutions** (renewables, storage, efficiency)
- ❑ Deployment challenged by supply chains, skills and transport limits
- ❑ **New fuels** raise geopolitical and proliferation risks
- ❑ Long-term **waste and decommissioning** burdens remain
- ❑ Strategic autonomy threatened by **reliance on non-EU suppliers** and fragmented markets

Opportunities

- ❑ **Fragmentation slows** SMR deployment; EU coordination for higher efficiency
- ❑ **SMRs/AMRs need sustained EU R&D** support; **Euratom programmes** critical for infrastructure and expertise
- ❑ **R&D focus**: advanced reactor designs, innovative fuels, modular manufacturing, digitalisation, system integration, waste management solutions
- ❑ High **EU content, IP protection, coordinated demand & public support** can unlock investment; poss. **funding** tools for FOAK and early deployment: IPCEIs, InvestEU, EIB, CfDs/PPAs
- ❑ Coordinated **focus on few designs** reduces risk and enables joint planning



Challenges

- ❑ **Nuclear safety** must **remain paramount**; streamlining should not weaken safety standards or oversight
- ❑ SMRs introduce **new risks**: decentralised sites, innovative designs, cybersecurity, proximity to urban areas, security threats, and cooling water shortages
- ❑ SMRs/AMRs are pre-commercial with **limited experience**; **long development** timelines; **cost reductions** through serial production **uncertain**
- ❑ **Possible subsidies risk market distortion** and **diverting resources from faster decarbonisation options**, such as RES and EE

Opportunities

- ❑ **EU nuclear academies**, harmonised **certification**, **cross-border mobility**, closer integration of training into overall net-zero strategies, plus **focus on diversity and gender equality**
- ❑ **All relevant stakeholders**, including regions and local municipalities, civil society and independent experts should **be engaged in open, transparent, science-based and structured consultations at an early stage**. Their active early involvement is crucial.



Challenges

- ❑ **Skills shortages pose a critical challenge**
- ❑ Tens of thousands of new qualified professionals will be needed over the coming decade
- ❑ Current **policymaking is overly top-down and dominated by industrial interests**; no active involvement and proper empowerment of all stakeholders and civil society

Thank you



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