

Social Perceptions of NNRs

T5.1. Mapping Societal Aspects of NNR Technologies



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Systematic Literature Review

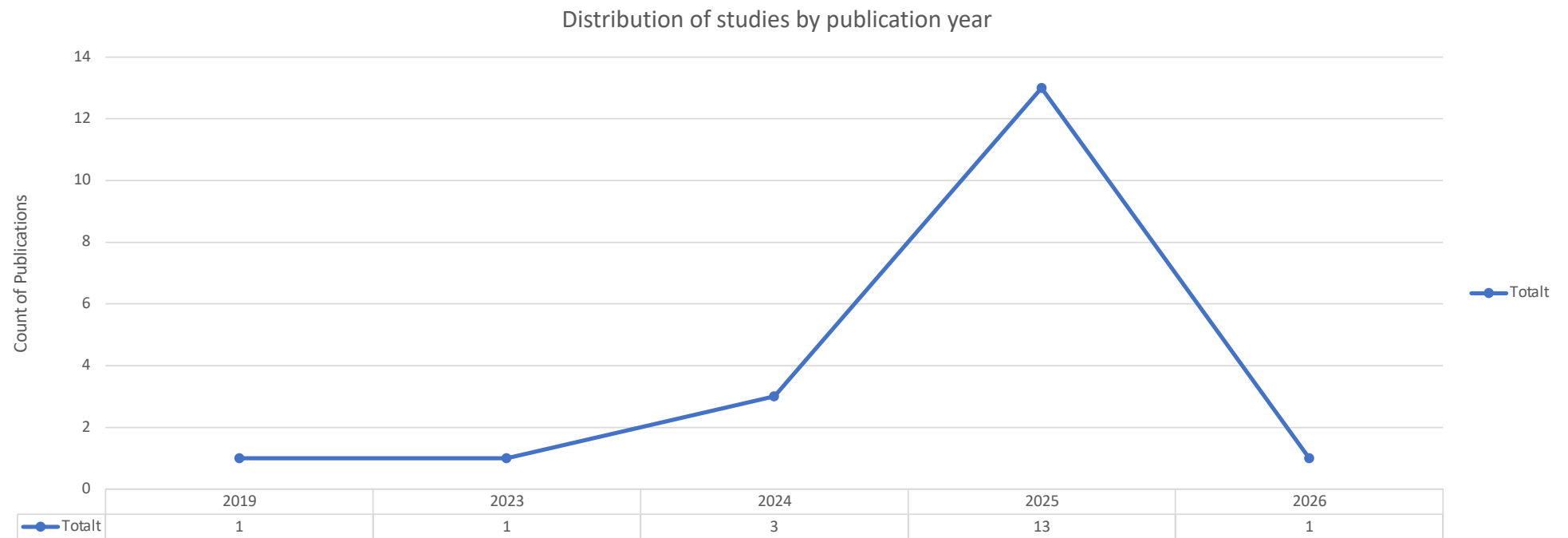
Databases & Scope	
Scopus	ScienceDirect
Title, abstract, keywords	Title, abstract, keywords
Articles, reviews, book chapters, letters	Articles, conference papers, reviews, book chapters, letters
<u>Focus</u> : SMRs and public perception	<u>Focus</u> : SMRs, public perception and surveys
("small modular reactor" OR "small modular reactors" OR SMR) AND ("public perception*" OR "public opinion*" OR "social acceptance" OR "community attitude*")	("small modular reactor" OR "small modular reactors" OR SMR) AND ("public perception" OR "public opinion" OR "social acceptance") AND (survey OR "survey study" OR "questionnaire")

Systematic Literature Review

Screening & Selection Results		
Stage	Scopus	ScienceDirect
Records identified	30	396
Title & abstract screened	13	43
Duplicates removed	0	5
Full-text assessed	13	38
Studies included	6	9

- Zotero was used to organize, store, and manage the data found after the first screening and to identify and remove duplicates.
- 4 more papers were added from Google research.

This table illustrates the distribution of studies by publication year. Findings from the systematic literature review also suggest a growing academic interest in social perceptions of SMRs and NNRs in the very recent years.



Main Takeaways

- Economic factors, political orientation, trust (or lack of) in authorities/other entities and gender disparity were some of the characteristics that influenced public perceptions;
- Public perception is also still heavily influenced by historical accidents (Chornobyl, Fukushima) and the association with nuclear weapons and Global conflicts and rising energy prices have reframed the debate;
- Interactive, transparent and easy-to-understand, expert-led communication can significantly shift perceptions, however it is also important to consider varying levels of knowledge and understanding of SMR technologies.
- Support for nuclear projects follows a "distance" pattern, and shows concern about storage and transportation of radioactive waste
- Social trust requires more than technical safety; it demands inclusive decision-making and a fair distribution of benefits tailored to specific community needs.

Important Factors for Surveys

- **Ensure Representative Sampling:** Guarantee that the sample closely reflects local population demographics, with particular emphasis on age and gender distribution;
 - **Demographic Data Collection:** Gather key demographic information, including age, gender, education level, and political affiliation, to evaluate how these factors influence perceptions of SMRs;
 - **Determinants of Opinion:** Identify the factors that most significantly shape public attitudes toward SMRs, with special attention to environmental impact and cost considerations;
 - Provide a concise and accessible explanation of SMRs, **Informational Clarity:** including their function and characteristics, to accommodate respondents with limited prior knowledge;
- Comparative analysis:** Examine public perceptions of SMRs in relation to traditional nuclear power plants (NPPs) to highlight similarities and differences in attitudes;
- Scope and Regional Considerations:** Determine whether the survey will be conducted on a national scale. If so, ensure that regional variables, such as «municipality», are included as part of the demographic data.



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Thank you for your attention!



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