

Public Acceptance of Fusion Energy in Europe



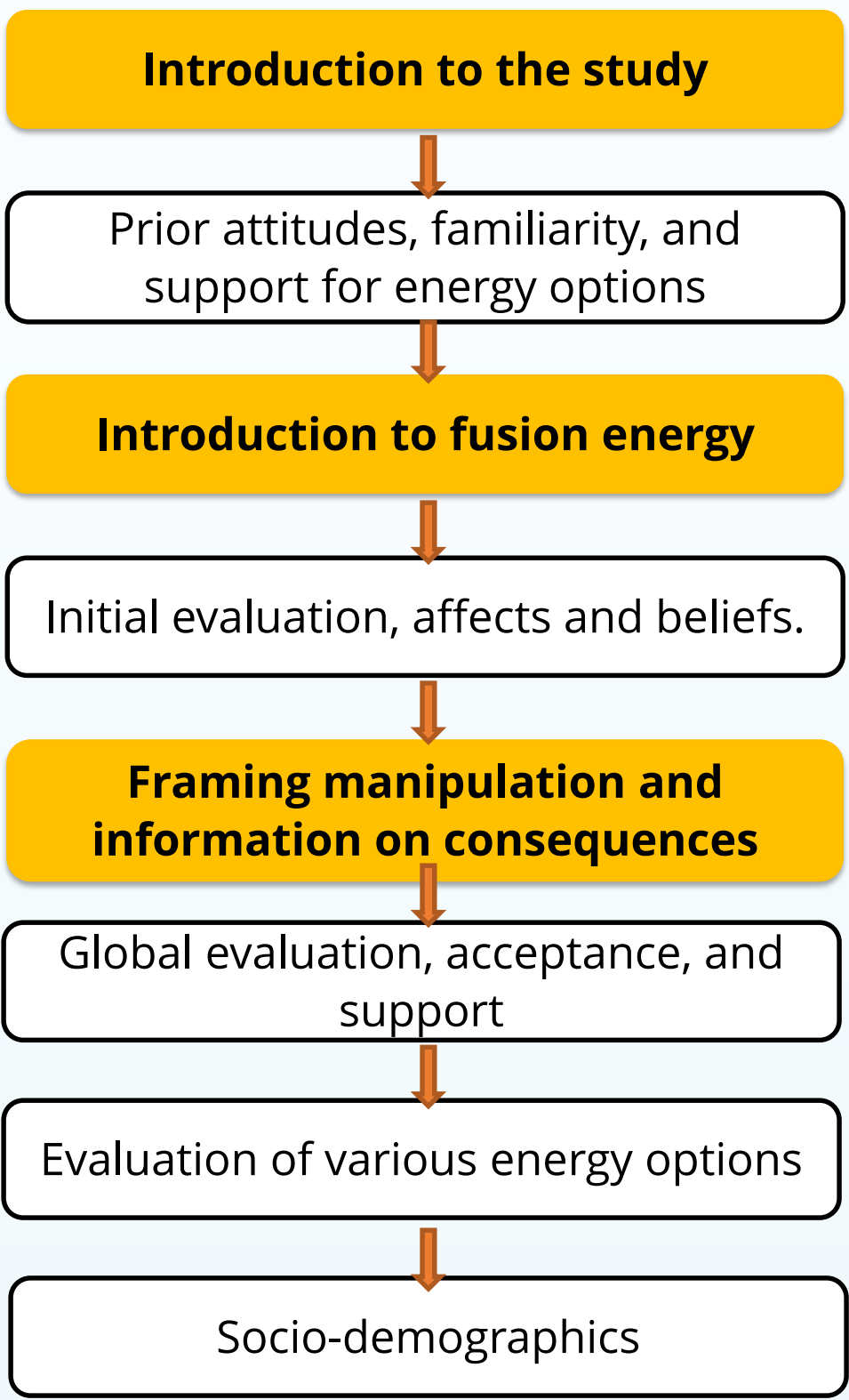
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Socioeconomic Studies on Fusion, EUROFUSION

INTRODUCTION

- This study aims to understand European public attitudes towards fusion energy, an emerging energy source with potential environmental and socioeconomic benefits.
- Developed by the Socio-Economic Studies (SES) Programme within EUROFUSION.
- Importance: Insights from this study can guide public engagement and policy strategies as fusion technology progresses.

METHODOLOGY

- Survey Design: A comprehensive questionnaire survey capturing informed opinions by providing background information on fusion energy.
- Sample Size: 19,144 respondents from 21 European countries, ensuring a diverse cross-section of the European public.
- Objectives:
 - Assess public awareness and initial attitudes toward fusion energy.
 - Evaluate the effect of providing detailed information on perceptions and support.
 - Explore cross-country variations in acceptance and support for fusion energy.



KEY FINDINGS

Awareness and Initial Attitudes

- Awareness: Fusion energy is not widely known, with 72% of respondents indicating little or no knowledge.
- Initial Attitudes: Most respondents were initially neutral or undecided about fusion energy before receiving detailed information.

Feelings and Beliefs associated with fusion energy

- After receiving general information about fusion, respondents reported largely neutral to positive feelings toward it, showing interest and optimism.
- Fusion energy is perceived as having beneficial environmental and socioeconomic impacts.
- Nearly half of the respondents express a positive view on fusion in these dimensions.
- The perceived safety on public health was the one with the highest perceived negativity

Attitudes Towards Fusion:

- Positive Attitude: 45% see fusion as a promising future energy source.
- Neutral/Undecided: 46% suggest continued research but prioritize other energy sources.
- Negative Attitude: 9% believe fusion power is unnecessary and advocate for investing in other alternatives.

Acceptance and Support:

- Development Acceptance: 59% find fusion energy development acceptable.
- Support for Expansion: 54% support expanding fusion energy in their own country.
- Demographic Influence: Higher support among older individuals, men, and those with higher education.

Country-Specific Differences

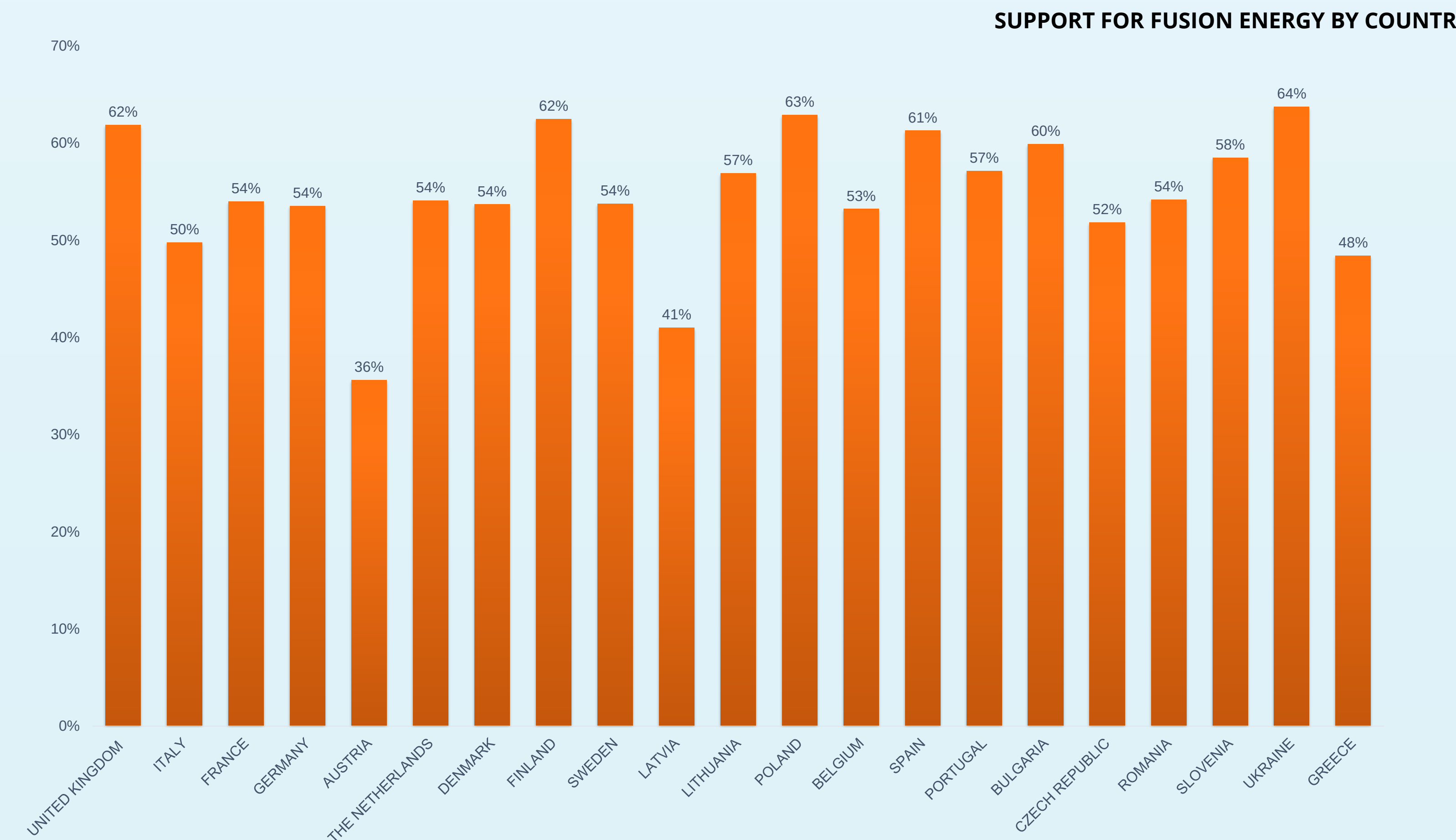
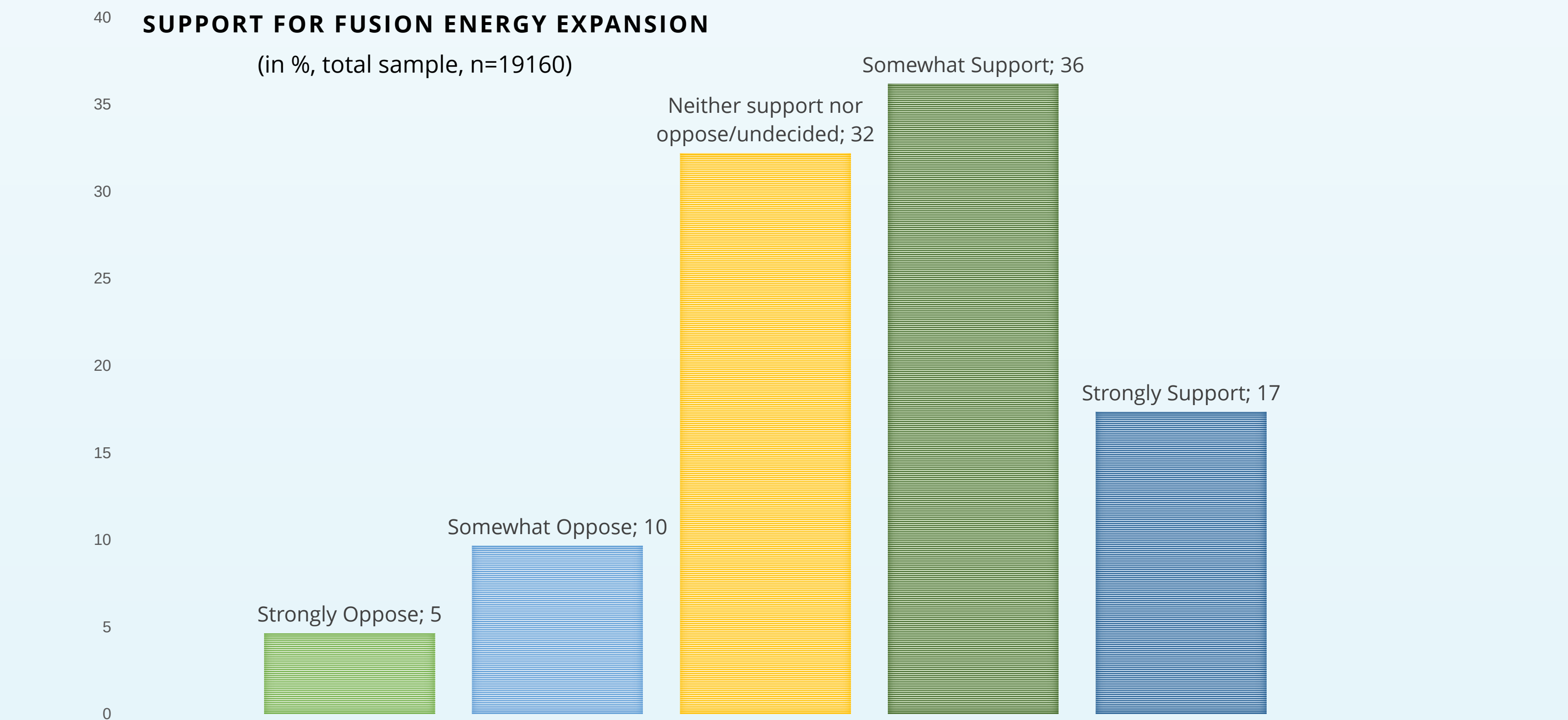
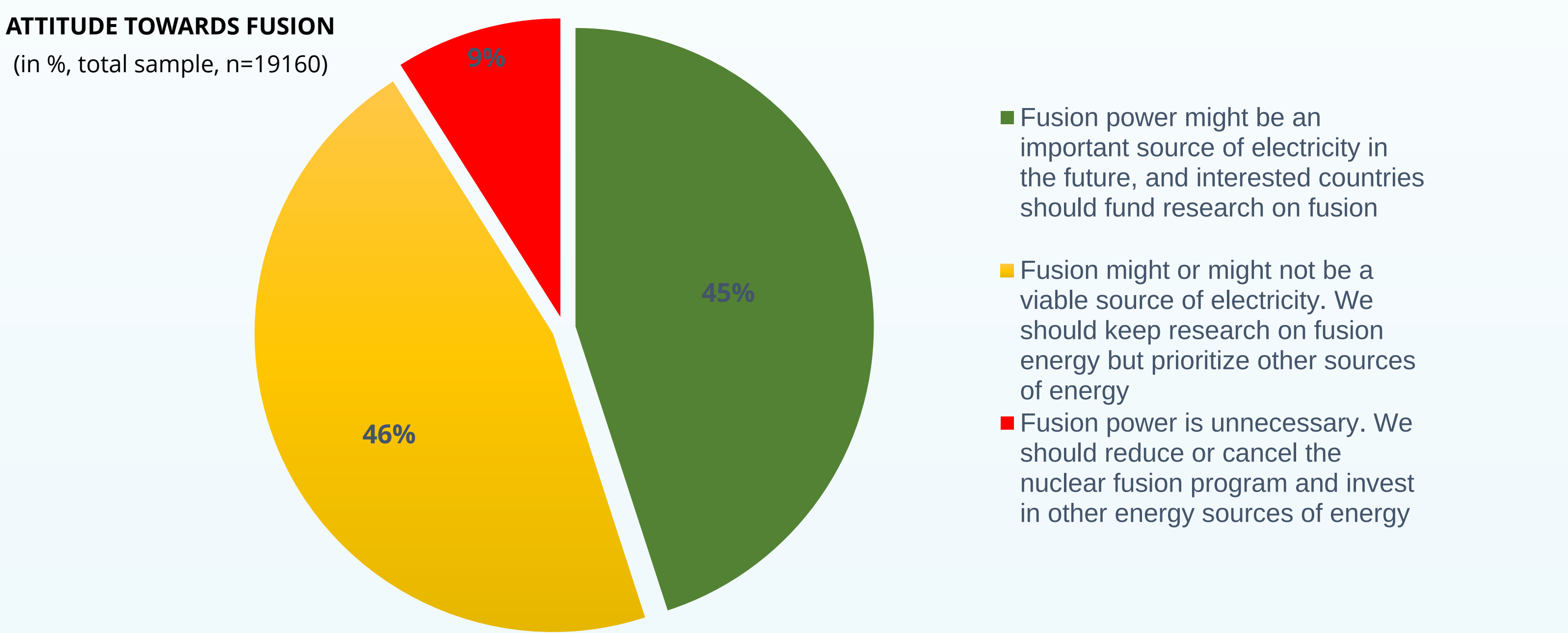
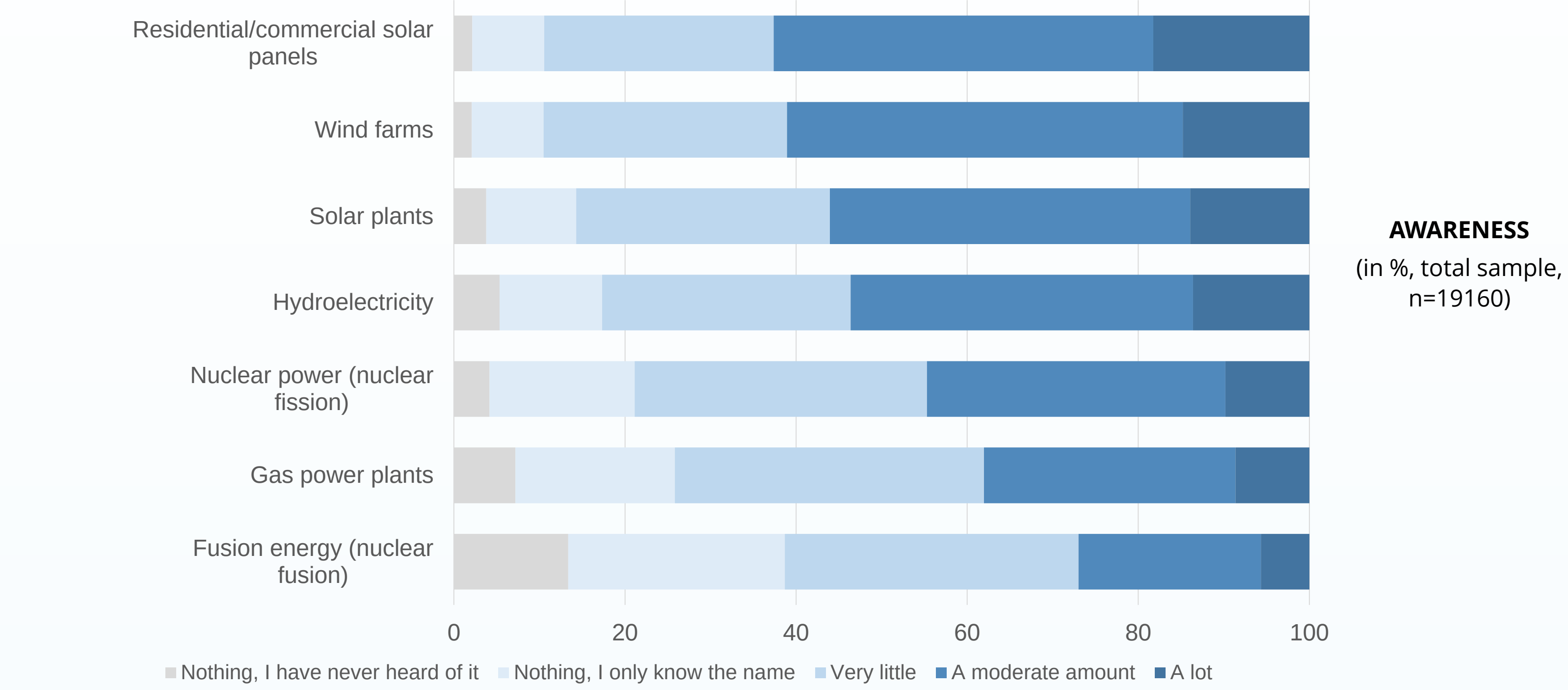
- The UK, Finland, and Poland showed the highest levels of both acceptance and support.
- Most countries are clustered in the moderate-to-high range of acceptance and support for fusion energy.
- Austria presents the lowest levels of both acceptance and support.

Effects of Information about Fusion

- After receiving information about fusion (both general and about the specific consequences of developing fusion), there was a noticeable shift away from ambivalence and opposition to fusion and a growth in moderate support.
- While various ways of framing the information (climate change etc.) show slightly different impact, the information and reflection led to a generally more positive stance.



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CONCLUSION

This communication highlights low to moderate public awareness and understanding of fusion energy in Europe. Although initial attitudes are neutral, providing information positively impacts perception. The majority of respondents across Europe see fusion as a good, acceptable, and potentially viable energy source with strong environmental and societal benefits. While concerns about safety, cost, and feasibility persist, a willingness to explore fusion energy is evident. Respondents prefer a collaborative approach between the public and private sectors, placing high trust in scientists and environmental NGOs as key information sources. Notably, public acceptance and support vary across countries, with some demonstrating higher enthusiasm than others. As fusion technology matures, targeted public engagement strategies aligned with national contexts will be crucial in fostering informed decision-making about fusion's role in Europe's energy future.