



poiesis
TRUST IN SCIENCE

D4.4: First/Initial Policy Brief

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ABSTRACT:	This First/Initial Policy Brief was compiled at end of the first year of the POIESIS project, based on the results of the project's initial empirical endeavours. It highlights the fragile evidence for the assumption that transparency throughout the research cycle, reproducibility of scientific findings and societal integration in the scientific process result in societal trust in the research system and confidence in its outcomes. The policy brief also provides recommendations for next steps in research on public attitudes towards science, and the way they are shaped by matters of research integrity, societal integration in research and the efforts of mediating actors.
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EUROPEAN

POLICYBRIEF



PROBING THE IMPACT OF INTEGRITY AND INTEGRATION ON SOCIETAL TRUST IN SCIENCE

POIESIS is a three-year project funded by Horizon Europe that strives to tackle societal mistrust in science by understanding how, and to what extent, societal trust in science, research, and innovation is affected by the alignment of research practices with principles of research integrity and by the integration of citizens and societal stakeholders in different phases of the research cycle.

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Societal trust in the research system and confidence in its outcomes are vital to ensure the EU's contribution to attain the Sustainable Development Goals and to achieve the European Green Deal targets. It is equally important for the uptake of innovation in society and for making further steps towards engaging citizens in R&I policies.

It is commonly assumed that transparency throughout the research cycle, reproducibility of scientific findings and societal integration in the scientific process result in societal trust in the research system and confidence in its outcomes. No matter how intuitively appealing these assumptions are, the evidence supporting them is rather thin. In the context of POIESIS, a literature review of empirical evidence on these assumptions shows that there are many related questions that remain open. These questions are exactly what POIESIS will be addressing in the upcoming years: it is our objective to identify and examine confounding variables as well as mediating actors in the trust relationship between science and society. In doing so, POIESIS aims to disentangle the interplay between research conduct, integrity, public integration in the scientific process, and trust in science, and to provide well-founded input for how to improve these dynamics.

POLICY RESULTS

At the present early stage of POIESIS (this 1st version of the policy brief was drafted during M11 and M12 of the project) two streams of work have provided results, namely the stock-taking and synthesis study and the public deliberative workshops.

The **stock-taking and synthesis study** provided the current state of empirical evidence on trust in science in general and more specifically on the questions whether and how research integrity and increased societal integration in the research process may impact public trust in science. The stock-taking, mainly based on international survey data, demonstrates consistency in some aspects, but also considerable variation in levels of trust depending on the specific time and place in which they are examined. This hints at hitherto unidentified confounding factors. On a general level, trust in

research is consistently rather high, though the Covid-pandemic resulted in some variation between and across countries. A further consistent finding across past studies is that people are more doubtful about the trustworthiness of privately funded research than public research.

On the other side, research findings on potential ways to restore public trust in science, in the context of the “Replication Crisis”, are much less conclusive. For example, learning about failed replication efforts of scientific studies might negatively influence citizens’ trust in science, while scientists’ self-admission of flaws in their past research might eventually have a positive influence on their reputation. Similarly, the impact of adherence to open science practices on trust among citizens are yet largely unknown. Similarly, empirical evidence is thin and inconclusive with regard to whether and how public engagement in research can facilitate public trust in science. This stream of work also revealed the variability of levels of trust across geographical and temporal dimensions, alluding to the fact that there cannot be a one-size-fits-all intervention for increasing people’s trust in science. The following two diagrams are indicative for this variability across countries and through time.

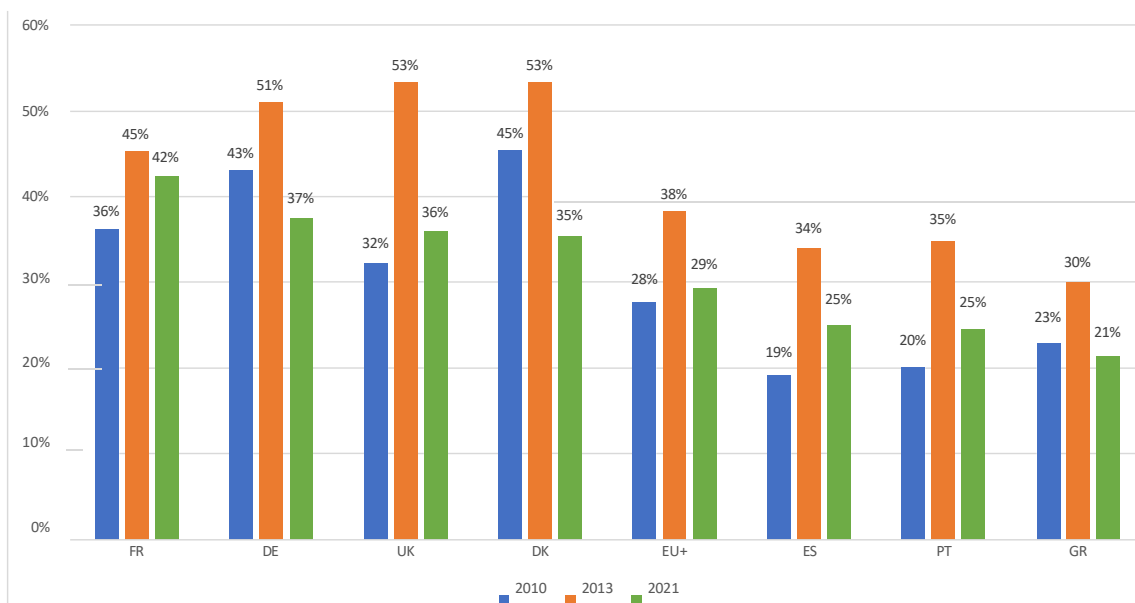


Figure 1: Percentage of respondents in POIESIS’ partner countries partly or fully agreeing with the following statement: “The public should be consulted and public opinion should be seriously considered when making decisions about science and technology.” From EB73.1, EB79.2 and EB95.2.

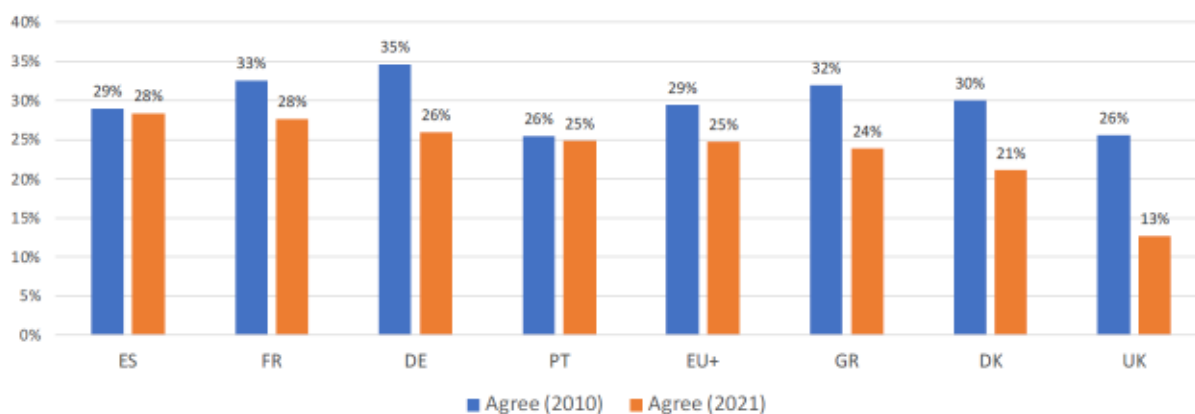
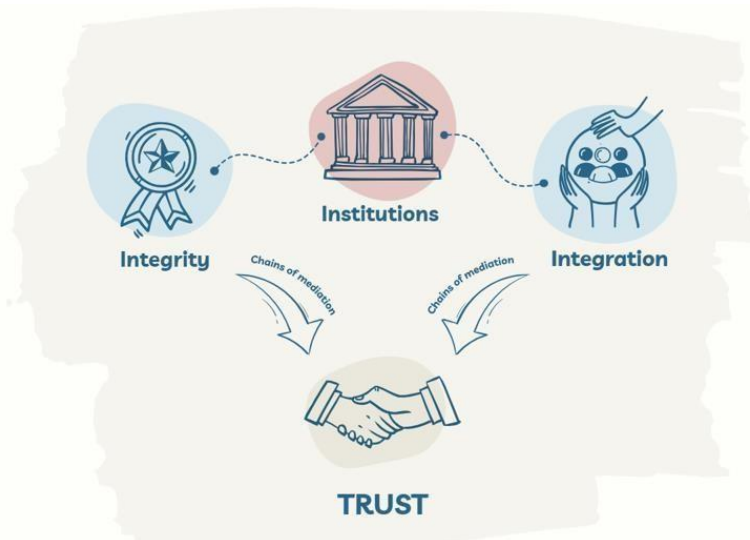


Figure 2: Percentage of respondents in POIESIS partner countries partly or fully agreeing with the following statement: “We can no longer trust scientists to tell the truth about controversial scientific and technological issues because they depend increasingly on money from industry”.

The **public deliberative workshops** confirmed the diversity of public attitudes towards science with a large variety of issues affecting the public’s trust in science being voiced. The data of the workshops is currently undergoing further analysis.

POLICY RECOMMENDATIONS

- More research is needed in order to generalise statements on the question whether the way in which research is conducted and the public is engaged in the scientific process can influence people's trust in science.
- For this research to effectively broaden our understanding of people's trust in science POIESIS introduces the **Institutions, Integrity, and Integration for Trust** (3i4t) model. We recommend this novel theoretical approach to integrate the individual and institutional levels and emphasise the chains of mediation



between research and the general public. We recommend using this model as a basis for developing specific research questions and methodological approaches that will support us in better understanding the complex relationship of research, trust and society.

As our initial findings highlight the significance of the communication and mediating processes between science and society, we recommend to examine these processes in more detail, particularly by investigating multiple stakeholders' role in and expectations of these processes. This includes researchers, institutional communication departments, science writers and journalists, and citizens.

PROJECT IDENTITY

PROJECT NAME	Probing the impact of integrity and integration on societal trust in science (POIESIS)
COORDINATOR	Niels Mejlgaard, Aarhus University, Aarhus, Denmark, nm@ps.au.dk
CONSORTIUM	Aarhus University - AU - Aarhus, Denmark Agencia Estatal Consejo Superior de Investigaciones Cientificas - CSIC - Madrid, Spain Centre National de la Recherche Scientifique - CNRS - Paris, France Instituto Universitario de Lisboa - ISCTE - Lisbon, Portugal London School of Economics and Political Science - LSE - London, United Kingdom National Technical University of Athens - NTUA - Athens, Greece Wissenschaft im Dialog GMBH - WiD - Berlin, Germany
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BUDGET	EU contribution: 1 670 875€.

WEBSITE

<https://poiesis-project.eu/>

**FOR MORE
INFORMATION**

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FURTHER READING

- D1.1: Protocol for stock-taking and analysis (submitted)
- D1.2: Dataset on core time-series items, climate science, and Covid-19 (submitted)
- D2.1: Protocol for the empirical case studies (submitted)
- D3.1: Protocol for participatory research actions with institutional stakeholders (submitted)
- D4.1: Recruitment and engagement Plan (submitted)
- D2.2: Results from public consultation (to be submitted on 31 October 2023)

All submitted deliverables can be found here: <https://poiesis-project.eu/deliverables/>



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