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D6.1 -Policy Brief Reporting Period 1

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Table of contents

List of abbreviations used in the document

HEI: Higher Education Institute
RFO: Research Funding Organisation
RPO: Research Performing Organisation
STI: Science, Technology and Innovation

Executive Summary

Policy recommendations are a central outcome of the IANUS project and a core component of WP6. This report provides information about the methodological approach for the co-creative development of policy recommendations in order to strengthen trust both within science (i.e. between scientists) as well as public trust in science. As policy advice is often strongly unidirectional - e.g. from science to politics - and relevant policy makers are often not appropriately involved, recommendations usually fail in implementation because influencing factors and, in particular, the perspectives and experiences of the implementing actors are not taken into account. For this reason, we envision - in the spirit of the entire IANUS project - an approach to developing policy recommendations that is highly participatory and co-creative. Specifically, we follow a policy-lab approach in which representatives from Research Funding Organisations (RFOs), Higher Education Organisations (HEIs), Research Performing Organisations (RPOs) and other policy actors are involved at different stages of the process to discuss and reflect on project research results and to jointly develop targeted policy recommendations.

1. Introduction

At this stage in the project there is limited first hand research to provide policy recommendations that are evidence based. This initial report will therefore problematize and raise awareness of the challenging issues which will be elaborated in D6.2 the policy brief due on M36.

1.1 Objectives of WP6

WP6 will ensure that the insights, knowledge and concepts generated in the IANUS project are translated into concrete, accessible and effective recommendations for the governance of science, technology and innovation (STI). In order to develop empirically based recommendations, WP6 will:

- Systematically identify key insights and concepts relevant for STI governance and policy, differentiated by levels of government and STI actors, drawing on the findings and results generated in the other Work Packages of the project.
- Develop government level and target-group specific recommendations for policy and decision-making bodies which can effectively shape and influence STI processes, institutional arrangements and activities with the aim of increasing the likelihood of research systems and their outcomes earning trust.
- Ensure that the proposed recommendations for STI governance and policy are validated by and consolidated together with stakeholders in dedicated policy labs, thereby increasing the relevance, applicability, effectiveness and societal robustness of the final recommendations.

The validated and consolidated recommendations will be published in a suite of tailor-made policy briefs designed specifically for the key STI decision-making bodies both at the macro level (European and national levels of government, and Research Funding Organisations (RFOs)), and at the meso-level (Research Performing Organisations (RPOs), Higher Education Institutions (HEIs) and other STI actors such as professional associations). These are the four central target groups of this Work Package.

1.2 The concept of policy labs for policy recommendations

In this project we want to develop tailor-made policy recommendations for various policy makers in the field of science, technology and innovation (STI). Policy recommendations must be evidence-based in order to give legitimacy to policy decisions (Van Veenstra, 2017, McGann, 2017). In particular, scientifically sound conclusions are viewed as a valuable and appealing political tool in the policy process. Nevertheless, the literature on policy advice also points out that 'science' is not the only basis for decision making. Instead, it is simply another source and aspect considered among many others (Kropp, 2010, Gluckman, 2016). In addition, particularly in those cases in which a sound scientific consensus has not (yet) been reached, different (scientific) experts are often pitted against each other by opposing political interest groups. Thus, 'science' is not perceived as 'true' or unbiased (Engels, 2005, Kropp, 2010)

Evidence-based recommendations are often criticized for being unidirectional and disseminated to target groups without first involving them adequately in the process. This increases the risk that such policy recommendations are ultimately not suitable and are therefore not, or only insufficiently, implemented (Hadorn, 2022). Consequently, comprehensive involvement of key stakeholders / policy makers in the process is of critical importance. This is in line with Habermas' well-known pragmatic model of providing scientific policy advice (Habermas 1969), which is based on the assumption of a high degree of interdependence between (political) value orientations and interests on the one hand and knowledge used to achieve political goals on the other hand. Instead of an unrealistic separation of "factual and value issues", processes of developing policy advice should be based on a critical interrelation of both spheres. Central features of this pragmatic model are mutual communication, dialogical learning and sense-making processes. Attention should be paid not only to the development of the policy recommendations, but in parallel, a strong focus on implementation and monitoring of policy recommendations is needed.

Policy labs have become a popular instrument for the co-creative development of (policy-related) recommendations. At the same time, the definition of policy labs often remains very vague. Studies on policy labs refer to a variety of formats and targets (McGann, 2017). In spite of the definitional ambiguity, there is agreement that policy labs bring together interested parties in order to develop ideas related to policy. Therefore, a policy lab can be seen as an environment that works to develop, test, and implement policies. A key feature of policy labs is the involvement of many different stakeholders and experts to consider the topic and to focus on evidence-based and data-driven discussion and recommendations (van Veenstra, 2017, Mc Gann, 2017).

Important conditions for the success of policy labs are the structuring of the interaction with policy makers, the interface between policy labs and the actual policy makers, and the identification of the intended audience and outcomes (Kropp, 2010, McGann, 2017). The methodological approach usually employed in policy labs is “design-led”, simulation like scenario planning or policy experimentation as well as stakeholder engagement. Policy labs are often implemented in various workshops formats (Olejniczak, 2020).

2. General approach to policy labs in the IANUS project context

The process of deriving policy recommendations from the IANUS project will begin after November 2023. Prior to this, there will not yet be sufficient input to develop evidence-based policy recommendations. As such, this report outlines the methodological approach and process of developing, discussing and validating policy recommendations with stakeholders.

The process of developing policy recommendations consists of several stages, starting with the identification of key insights from the project, the correlation of these key insights with STI governance aspects, the derivation of first recommendations, and the final validation of these recommendations and concretization of recommendations together with STI governance stakeholders.

In order to develop recommendations that are as valid and as implementation oriented as possible, the envisaged process will be participatory, tested with internal actors (i.e. from the IANUS consortium) and external stakeholders (representatives from the RFOs, RPOs, higher education institutions and policy actors), and include various feedback loops.

3. Description of the methodological approach of policy labs

3.1 Identification and structuring of key policy-relevant insights (T6.1)

IANUS will generate a corpus of knowledge and insights concerning the characteristics of trust in science, and the requirements for trustworthy practices and institutional arrangements. In order to make this cutting-edge research accessible and usable for decision takers and policymakers, it is necessary that policy-relevant findings and insights are identified and structured according to their relevance for the different governmental levels and target groups.

To achieve this, all internal and external deliverables and reports will be assessed and coded using a uniform scheme of analysis. The results of T3.5, in which the aspects of STI governance regarding the topic of trust and science are being developed, will serve as a first basis for this coding scheme. Here, different aspects of STI governance are sorted by levels of coordination:

- **Micro-level**: i.e. individual researchers/groups of researchers, research projects etc.
- **Meso-level**: i.e. scientific organisations such as universities, universities of applied science, research performing organisations, groups of research organisations, research funders and research councils etc.
- **Macro-level**: i.e. aspects of research policy, international (EU) and national legal frameworks etc.

With the help of the coding scheme, key insights will be coded and assigned to the action areas of the four defined target groups (RFOs, RPOs, HEIs and policy actors). The identified key insights will then be mirrored and validated with the leaders of the other relevant work packages.

3.2 Drafting policy recommendations (T6.2-6.4)

In a further step, the identified insights will be developed into initial policy recommendations. These will refer to measures in the area of responsibility of the respective target groups. They will be framed by statements or hypotheses drawn from the results of the work of the other WPs. The translation of the key insights into recommendations will take place in close collaboration between the stakeholders involved in the WP in order to exploit the entire institutional know-how of the various stakeholder groups (i.e. HEIs, RPOs, RFOs).

3.3 Addressing and involving external stakeholders

After the key insights have been identified and the first policy recommendations have been developed, external stakeholders will be brought into the process.

These stakeholders will be identified through the existing network of partners in the consortium. In addition, representatives of the four target groups, who have a special interest in the topic of trust in science and have shown engagement in this regard (e.g. through development of

recommendations, guidelines, directives, defining standards etc.) will be identified. When selecting these specific actors, it will be necessary to recruit persons who are responsible for a specific topic area, and who can implement actions in their institution or in their area of responsibility. Based on experience, less emphasis will be placed on the senior management level of scientific institutions (e.g. university presidents, etc.), since it is difficult to engage those at such high levels. Instead, focused staff units, ombudspersons as well as actors responsible for research integrity, etc. will be approached. Among research funders, the organisations contacted will have already taken up aspects of trust in science in their funding guidelines, show intrinsic interest into the topic and a willingness to engage in further professionalizing themselves in this area ("coalition of the willing").

In our view, it is crucial for the success of the policy labs to contact the potential participants at an early stage and to inform them in a targeted manner about the project and its key insights before the joint discussion. This enables the participants to prepare for the event and facilitates a focused and results-oriented discussion atmosphere.

In principle, we see two suitable ways to involve participants in the policy labs at an early stage and to inform them about the project: First, by sending out an initial policy brief, and second, by conducting an online survey among policy stakeholders. The choice between these options will be made in the course of 2023.

3.3.1 Option 1: Informing Stakeholders via initial policy brief

An initial policy brief will be prepared for each of the four stakeholder groups and sent to the policy lab participants in advance. These policy briefs will summarize the core messages of the project and translate them into key theses and targeted group-specific recommendations.

The policy briefs should be short and concise (e.g. 2-3 pages) The core messages of the project and initial recommendations should be aligned with the participants' area of activity or scope of actions. If, for example, concrete measures are proposed, it should also be possible for the invited stakeholders to implement them, if necessary.

3.3.2 Option 2: Stakeholder survey

In this approach, interested stakeholders who have agreed to participate in the process of developing policy recommendations would be interviewed in a short online survey. The participants will be confronted with statements or hypotheses derived from the project's key insights. The statements and hypotheses will be formulated in a provocative manner. The survey will ask about the degree of agreement or disagreement. This will provide an initial picture of how the project results are received by stakeholders from science governance. Furthermore, the relevance of certain topics or problems for trust in science will also be questioned and issues prioritized. In this way, we will identify concrete needs for action.

The results of the survey will be incorporated into the subsequent policy labs and will form the basis of discussion for the development of concrete policy recommendations. It can also be used to identify a consensus position by reporting and discussing findings of the survey. In the next step (see chapter 3.4 Implementation of the Policy Labs) participants are presented the results

and opinions from the survey, giving them the opportunity to reflect on the views of others and reposition their own opinions accordingly, including the strengths and weaknesses of other's responses. Thus, this method incorporates a number of central features of the Policy Delphi approach (Keeney et al. 2006, Hsu 2007).

3.4 Implementation of the Policy Labs

We propose the application of the focus group method for the four policy labs with stakeholders from science governance. Focus groups are a moderated group discussion format with a limited number of participants (e.g. between 6-12). The participants in focus groups will be selected to have a certain degree of homogeneity (e.g. they are representatives of a certain stakeholder group and share a common interest in the topic at stake), to ensure the development of targeted results. The results of the discussion emerge in a collaborative process featuring a constructive discussion among the participants, the exchange of different experiences, points of view, needs and assessments. The strength of focus groups is that they are a time and cost effective method for obtaining well-founded information from proven experts. Furthermore, the discussion of different views can also bring additional information gain.

The initial involvement of stakeholders - either in the context of an online survey or a first policy briefing sets the scene for a productive discussion. In the case of an online survey, the policy lab participants will be confronted with the survey results at the outset. Each participant will then be asked to comment and assess the results against the background of the individual's experiences. The early involvement of all members of the focus group gives them time to reflect on each other's perspectives on the subject matter.

To further integrate stakeholders in the focus group, all the participants will be asked to prepare a short resume (e.g. 5 minutes) in which they report on their experiences on the topic of trust in science, where they have had a particularly negative or positive impact on trust in science, and what particularly interests or motivates them about the topic of trust in science.

Cultivating strong involvement of the participants in the focus group process increases the applicability of the project results and the developed recommendations. It may also increase the motivation of stakeholders to participate, reducing the risk of no-shows.

After the introductory resumes, the working hypotheses and initial recommendations are briefly outlined. Then, the substantive discussion starts with the participants sharing their assessment and reasons for agreeing or disagreeing with particular hypotheses and recommendations. In the course of a group discussion, people's views may change; assessments and attitudes are adjusted by the arguments and perspectives of other participants. The goal is then to arrive at common positions.

In a further step, the hypotheses, which may have been reformulated, are to be transformed into targeted policy recommendations for the respective stakeholder groups. This is achieved by following the Policy Cycle (see Badie et al. 2010 for example). The policy cycle is a highly stylised heuristic used for analytical purposes in the policy sciences. The cycle divides political action into different phases in terms of policy process and usually presents them in a circular form. The phases are:

- **Problem formulation:** a policy problem is identified (e.g. issues influencing trust in science);
- **Agenda setting:** the problem is placed in the policy agenda;
- **Policy formulation:** decisions on concrete measures to solve the problem;
- **Implementation:** the measures are put into practice;
- **Evaluation:** assessment of the effects and identification of further adaptions necessary.

A more detailed operationalization of the different phases of the policy cycle will be possible when the initial project results become available. However, it can be expected that the main focus of the policy recommendations will centre around the phases 'policy formulation' and "implementation'.

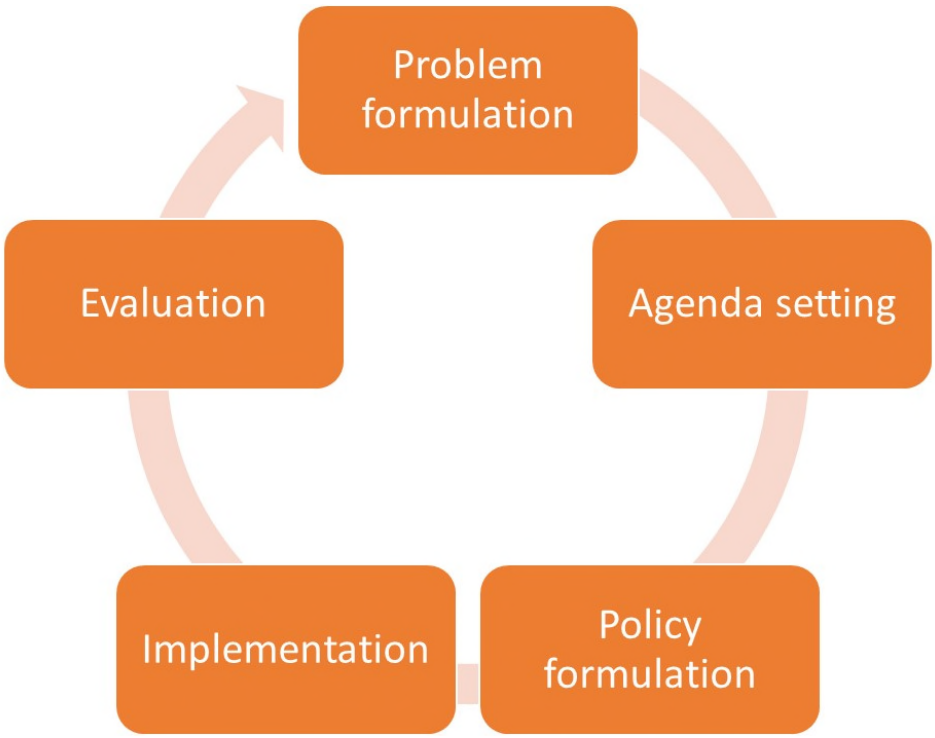

Figure 1. Ideal Model of a policy cycle

3.5 Finalization of policy recommendations

Based on the discussion in the focus groups, the initial statements, hypotheses and policy recommendations will be adapted and revised. Shortly after the focus group discussions a synopsis will be circulated to the participants with an invitation for final comments.

The final policy recommendations will be prepared as policy briefs, forming the deliverables of the work package (D6.2-6.5).

3.6 Test phase

The policy lab concept will be pilot tested in an internal workshop, with the different consortium partners taking on their institutional role within this workshop (e.g. RCL = view of a research funder, Uni Roma = view of a university, Fraunhofer = view of an RPO etc.). The consortium partners will contribute and discuss the issues facing their institutional role. The extent to which targeted and application-oriented policy recommendations are developed with the proposed methodology will be reviewed and adjustments made before external stakeholders are involved in the process.

4. Organizational aspects

With the start of WP6 in the Autumn of 2023, the processing and categorisation of the insights, findings and results from the relevant WPs will begin. The policy-relevant knowledge will be identified and then translated into initial hypotheses, statements and eventually policy recommendations. For this purpose, discussions will be held with all WP leaders of the IANUS project. In parallel, external stakeholders will be contacted, informed about the project and invited to participate in the policy labs.

If it is decided to conduct a stakeholder survey following a Delphi approach to engage stakeholders, the survey will be conducted via Unipark's EFS Questback survey tool. This tool enables personalized surveys with full anonymization to ensure GDPR compliance. Participants in the four policy labs will be invited four to six weeks in advance.

It may be decided to conduct the planned focus groups into two phases. In the first phase of about two hours, the participant stakeholders would present their 'resume', gain familiarity with each other, discuss issues of trust in their sector and the IANUS project's results. In the second phase, again of two hours and held a few weeks later, they would reconvene to develop concrete policy recommendations.

Although a face to face meeting would provide a more intense group dynamic, we are inclined to holding the focus groups in an online format. This would reduce the financial costs of participation to the project, and the costs to participants of their time. Furthermore, holding the policy labs online would also facilitate a higher degree of inclusion and diversity, enabling participants from far afield to contribute to the study. At the same time, a virtual format allows for the use of visual tools like Conceptboard which helps to visualise and structure the results of the discussion and also enables a policy mapping approach (González-Zapata, 2007).

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