



## SHAPE-ID: Shaping Interdisciplinary Practices in Europe

### Deliverable 5.4 Final Policy Brief Drawing on Project's Toolkit

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# EUROPEAN POLICYBRIEF

## PATHWAYS TO INTER- AND TRANSDISCIPLINARY RESEARCH: THE SHAPE-ID TOOLKIT

### SHAPE-ID

Shaping interdisciplinary practices in Europe

This third SHAPE-ID policy brief introduces the SHAPE-ID Toolkit and presents recommendations to policymakers and funders on how this new web-based resource can be used to make informed decisions about inter- and transdisciplinary research, involving the Arts, Humanities and Social Sciences to maximise effective responses to societal challenges.

28 MAY 2021

### INTRODUCTION

The SHAPE-ID project has developed a web-based toolkit that offers a gateway to resources to help policymakers and funders better support inter- and transdisciplinary research (IDR/TDR) and improve the integration of the Arts, Humanities and Social Sciences (AHSS). It includes guided pathways according to what the user wants to achieve, combined with introductions and commentaries to help them make best use of the information. The toolkit is informed by two years of SHAPE-ID research, which has shown that enabling AHSS integration requires a widespread change in the science system, from how policy is made to how science is funded, how researchers are trained and how their careers are evaluated by universities and funders alike. In this policy brief we focus on those recommendations and resources most relevant to what policymakers and funders can do to improve pathways to AHSS integration.

Ensuring that researchers from the AHSS disciplines are appropriately involved in research and innovation policy and funding should be a priority for policymakers in order to address the full complexity of today's societal challenges. The AHSS put human lives, identities, society, culture, and economy at the centre of research and innovation; they emphasise the importance of ethics and experiences, past and present; and they recognise emotion as a motivating factor, crucial to achieving sustainable progress. Furthermore, they can bring a necessary balance to Science, Technology, Engineering and Mathematics (STEM) interpretations of societal challenges and can broaden the focus of research and innovation efforts to address how communities and societies can adapt to change.

The toolkit is available at [www.shapeidtoolkit.eu](http://www.shapeidtoolkit.eu)

The SHAPE-ID toolkit is the culmination of research undertaken throughout the project (outlined below in the Evidence & Analysis and Research Parameters sections). Our recommendations are deliberately pitched at different levels of granularity – some are systemic, while others relate more directly to day-to-day practice. Accompanying highlights of related guidance for research funders give a flavour of the many resources and guides to be found in the SHAPE-ID toolkit.

### 1 Involve Arts, Humanities and Social Sciences researchers in framing funding programmes and calls

Funding for inter- and transdisciplinary research often aims to address societal problems, such as migration, healthy ageing or sustainable food production. These issues are both socio-cultural and technical; neglecting the socio-cultural aspects makes developing feasible policy solutions much more difficult. Funders should, therefore, involve Arts, Humanities and Social Sciences (AHSS) researchers early on in framing research programmes and specific calls. Ensuring that socio-cultural questions are embedded in research priorities, such as EU missions or grand challenges, will allow all disciplines to contribute to developing viable evidence-based solutions.

### 2 Ensure more inclusive language is used in funding calls

Many funding calls, and especially those aimed at providing solutions to societal problems, frame these issues as technical challenges to be solved by more scientific knowledge or new technologies. This deters potential collaborators from the AHSS. Funding bodies should pay more attention to the language used in such calls, working in partnership with researchers to ensure that the language used is, at a minimum, ‘discipline-neutral’ and encourages both socio-cultural and technical approaches to solving societal problems.

### 3 Disseminate informative learning case studies of AHSS-led collaborative research

Traditionally, when communicating about research we focus on the quality and quantity of our successes. There is less documentation of research processes, and, in particular, we are much less candid about sharing important lessons from research experiences that have been less positive. A greater focus on research processes, not simply outputs, conveyed by means of illustrative case studies, will help researchers from all disciplines to become more confident in participating in inter- and transdisciplinary research.

### 4 Give careful consideration to why and how you fund ID/TD

Funders need to be aware of the many different motivations for doing inter- and transdisciplinary research, ranging from a very pragmatic desire to address societal challenges to supporting the evolution of disciplines to maintain and develop the research base. In order to sustain a healthy, balanced research ecosystem, funders need to fund a diversity of inter- and transdisciplinary research, not simply projects that seem to have the most immediate impact.

Excerpt from SHAPE-ID Guide *What can the Arts, Humanities and Social Sciences Bring to Inter- and Transdisciplinary Research?*

SHAPE-ID has identified a range of different types of expertise that Arts, Humanities and Social Science researchers can contribute to collaborative research, including projects focusing on societal challenges:

1. Reframing problems to focus on human experiences and values
2. Understanding the complexity of identities, behaviours and meaning
3. Providing historical perspective to enable consideration of long-term influences on current problems
4. Highlighting ethical perspective in order to address inequalities
5. Enhancing critical perspectives and reflexivity
6. Analysing discourses, narratives and representations
7. Improving foresight through better understandings of human societies, behaviours and values
8. Fostering intercultural and intergenerational dialogue
9. Providing contextual knowledge for policy application
10. Facilitating effective communication using storytelling techniques
11. Creating an experimental space for exchange and dialogue through arts practice
12. Creating new knowledge, highlighting unexpected perspectives on key issues
13. Allowing us to explore conflict and difference and engage emotions

This is one of five SHAPE-ID Topic Guides available from [www.shapeidtoolkit.eu/downloadable-guides](http://www.shapeidtoolkit.eu/downloadable-guides)

## 5 Adopt a more flexible approach to funding to allow for the extra time needed for integration

Our research reinforces the widely-held view that inter- and transdisciplinary research projects can take more time, as partners need to engage in additional work to align understandings and expectations and ensure integration actually occurs. This is especially true of research co-created with societal partners. Allow extra time and funding for additional resources, preparation meetings and integration experts.

## 6 Recruit experienced inter- and transdisciplinary evaluators and train them

Evaluating inter- and transdisciplinary research requires knowledge and skills derived from conducting such research and there is currently a shortage of suitable evaluators. We recommend that the EU and other funding bodies recruit more evaluators with experience in conducting inter- and transdisciplinary research and provide them with high quality training in order to achieve best practice in evaluating such research throughout the funding cycle, both pre- and post-award.

## 7 Influence research cultures to recognise inter- and transdisciplinary achievements

Those in leadership positions within funding bodies and universities should commit to long-term policy change. This will involve publicly recognising the value of inter- and transdisciplinary research and rewarding those who undertake it, but also overseeing changes to policies and procedures, thereby improving administrative flexibility and removing bureaucratic hurdles to collaboration. Finally, funders and others should support capacity building for AHSS disciplines, which have historically participated less in inter- and transdisciplinary research.

Consider the following questions when preparing to fund collaborative research:

- Were researchers across a spectrum of disciplines, and individuals from other sectors, fully involved in the development of this funding scheme?
- If the proposed research aims to solve societal problems, does it keep the framing of these problems open, or does it suggest narrow framings that assume they need technical solutions?
- Does your call ask applicants to clarify how key challenges of interdisciplinary and transdisciplinary research - like problem framing, integration or exploring how to have impact – will be addressed?
- Has the research call been widely advertised with enough time so that those who have not previously applied can submit a credible application?
- Is it easy for potential applicants to get advice about the aims of the funding scheme and how to develop a high-quality application?
- Would you consider offering seed funding to launch projects in new interdisciplinary directions?
- Do your funding schemes allow for the extra time necessary to undertake high-quality collaborative research due, for example, to larger research groups and greater uncertainties?
- Do they also allow for the extra costs incurred when undertaking collaborative research, such as initial events to develop partnerships or facilitation to improve communication?

This is one of five SHAPE-ID Reflective Tools available from: [www.shapeidtoolkit.eu/downloadable-guides](http://www.shapeidtoolkit.eu/downloadable-guides)

## 8

### Work in partnership with national funders to train the inter- and transdisciplinary workforce of the future

Support the development of inter- and transdisciplinary education and research in higher education institutions to build capacity at all levels, from undergraduate to postdoctoral and beyond, including developmental support for those in institutional governance positions. Moreover, doing inter- and transdisciplinary research requires additional “meta-skills” such as leadership, communication, negotiation and integration that could also be facilitated through EU funding for researcher development.

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### Provide continuity of support to allow individuals to fully develop inter- and transdisciplinary research careers

Provide ongoing support to those undertaking inter- and transdisciplinary research, allowing them to develop careers equivalent to those of single discipline researchers. Such support should be accessible to individuals separately from project funding, which is by its nature discontinuous and not available over a sufficiently long timescale for career development. Funding should also include support for interdisciplinary research leadership.

### Excerpt from *Top Ten Tips for developing inter- and transdisciplinary research funding programmes*

1. Successful programmes take deliberate steps throughout to achieve integration and coherence e.g. by network- and community-building.
2. The language used in a funding call is important: inclusive, accessible and jargon-free language can open up a topic in a way that invites different perspectives.
3. Consider which level(s) are to be the chief platform for inter- or transdisciplinarity: at programme level, theme level or project level.
4. Who will provide the necessary inter- or transdisciplinary leadership: the funders, the academic Programme Director or a team of individuals in charge of component projects?
5. When selecting leaders for inter- or transdisciplinary research programmes, leadership skills and integrative vision may need to be weighted more heavily than a conventional academic track record.
6. A great deal of tacit knowledge about the management of inter- or transdisciplinary research programmes can be held by funding agency staff: how will this be captured?
7. Funders should recognise that, due to less experience in inter- and transdisciplinarity, the Arts and Humanities may require additional support in order to participate in and lead such research.
8. Ensure that learning from past experiences of inter- and transdisciplinary investments becomes embedded through greater continuity of research networks/communities, and of research careers.
9. Incorporating flexibility into a programme's budget allows not only evolution but also an opportunity for research leaders to develop new ways to facilitate genuine inter- and transdisciplinarity.
10. Inter- and transdisciplinary capacity-building is a long-term process: funders need to recognise that it can require more time to achieve genuine integration.

This is one of six SHAPE-ID Top Ten Tips available at: [www.shapeidtoolkit.eu/top-ten-tips/Top Ten Tips](http://www.shapeidtoolkit.eu/top-ten-tips/Top Ten Tips)

### Further Resources from the SHAPE-ID Toolkit

The toolkit's guided pathway for funders and policymakers highlights resources under headings such as **Fund Collaborative Research Projects**, **Evaluate Inter- and Transdisciplinary Research** and **Support Collaborative Researchers**. We envisage that the following resources will be of particular interest:

- [Evaluate Inter- and Transdisciplinary Research](#) includes key resources such as the SHAPE-ID Guide on *Evaluating Inter- and Transdisciplinary Research*, *Reflective Tool for Reviewers of Inter- and Transdisciplinary Research*, and *Top Ten Tips on Evaluating Inter- and Transdisciplinary Research*, as well as many more resources on best practice in evaluation.
- The [Co-design funding calls](#) section contains the second SHAPE-ID policy brief which discusses the importance of inclusive language in research calls.
- The [Case Studies](#) page includes 12 short case studies on projects, institutions, funders and research infrastructures. Featured cases include the Irish Research Council's efforts to support IDR/TDR and AHSS capacity building, the UK Arts and Humanities Research Council's Science in Culture Programme, and the Trinity Long Room Hub Arts and Humanities Research Institute's work in fostering a culture of interdisciplinarity.
- [Support Collaborative Researchers](#) includes a SHAPE-ID Reflective Tool for those developing support systems for researchers.

## EVIDENCE AND ANALYSIS

The structure and contents of the toolkit are underpinned by findings from academic and policy literature reviews, a survey of researchers involved in inter- and transdisciplinary projects, interviews with policy stakeholders, and a series of six learning case workshops organised with over 160 expert stakeholders across Europe. Results from these activities were synthesised to produce a system of preconditions for good AHSS integration (Taylor-Wesselink & Wallace, 2021), which were discussed with and refined in dialogue with an international panel of experts. The final system of preconditions were in turn condensed and refined to create the final toolkit categories and inform the selection of curated and new resources within the toolkit.

The SHAPE-ID literature review (Vienni Baptista, Fletcher, et al., 2020) found 25 separate factors that can influence the success or failure of IDR/TDR projects. These ranged from individual attitudes, values and motivations, to interpersonal competencies, disciplinary cultures and the broader societal and institutional structures that underpin them. These factors operate at different levels (individual, team, institutional, societal) and according to different time scales (e.g. career stage and research project phase). Findings from the workshop series (Galvini et al., 2020) reinforced the importance of long-term commitment and capacity building on the part of policymakers, funders and higher education institutions, to enable change. Funders and policymakers have an important role to play in creating conditions conducive to good integration through their contribution to establishing policy priorities for research and education, as well through the design and evaluation of funding programmes.

## RESEARCH PARAMETERS

SHAPE-ID addresses the challenges of developing a policy for integration/interdisciplinarity between AHSS and other scientific disciplines at European level, based on empirical experiences of this kind of inter- and transdisciplinary research, and of identifying areas which show potential for genuine cooperation between all disciplines in order to meet Europe's societal challenges. The current policy brief is based on the synthesis and toolkit development work undertaken in Work Packages 4 and 5.

SHAPE-ID's primary stakeholder groups are funders and policymakers, research performing organisations, researchers, and research partners from enterprise or society. A core objective of the project was to deliver a toolkit and recommendations that would guide these decision makers and researchers, at different levels of the research and innovation system, towards successful pathways to integrating AHSS in inter- and transdisciplinary research with STEM disciplines and societal partners.

The toolkit's main goals are: (1) to inspire and motivate those who have not so far been involved in inter- and transdisciplinary research by bringing a more targeted lens on the particular requirements of the AHSS disciplines; (2) to inform and instruct a wide variety of different users; and (3) to provide guidance and signposting to aid users in achieving better pathways to conducting or supporting AHSS integration in inter- and transdisciplinary research, through contextualised access to relevant existing resources and new resources produced by the project team to address gaps, showcase examples, and summarise good practice.



## PROJECT IDENTITY

<b>PROJECT NAME</b>	Shaping Interdisciplinary Practices in Europe (SHAPE-ID)
<b>COORDINATOR</b>	Professor Jane Ohlmeyer, Trinity College Dublin, Dublin, Ireland, <a href="mailto:ohlmeje@tcd.ie">ohlmeje@tcd.ie</a>
<b>CONSORTIUM</b>	<p>The Provost, Fellows, Foundation Scholars and the other members of Board, of the College of the Holy and Undivided Trinity of Queen Elizabeth near Dublin (Trinity College Dublin)   Trinity Long Room Hub Arts &amp; Humanities Research Institute   Dublin, Ireland</p> <p>Istituto di studi per l'integrazione dei sistemi (i.s.i.s) - societa'cooperativa (ISINNOVA)   Rome, Italy</p> <p>Eidgenoessische Technische Hochschule Zuerich (ETH Zurich)   Department of Environmental Systems Science   Zurich, Switzerland</p> <p>The University of Edinburgh   School of Social and Political Science   Edinburgh, Scotland, United Kingdom</p> <p>Instytut Badan Literackich Polskiej Akademii Nauk (the Institute of Literary Research of the Polish Academy of Sciences)   Warsaw, Poland</p> <p>Dr Jack Spaapen   Amsterdam, the Netherlands</p>
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<b>WEBSITE</b>	<a href="http://www.shapeid.eu/">www.shapeid.eu/</a> (project website)   <a href="http://www.shapeidtoolkit.eu">www.shapeidtoolkit.eu</a> (toolkit)
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<b>FURTHER READING</b>	<p>Galvini, G., Sessa, C., Wallace, D., Taylor-Wesselink, K., Ohlmeyer, J., Lyall, C., Fletcher, I., Vienni-Baptista, B., Pohl, C., Maryl, M., Buchner, A., Wciślik, P., Błaszczczyńska, M., Caro González, A. (2020). Report of workshops and analysis of IDR/AHSS integration learning cases. <a href="https://doi.org/10.5281/zenodo.4439665">https://doi.org/10.5281/zenodo.4439665</a></p> <p>Taylor-Wesselink, K. &amp; Wallace, D. (2021). Draft System of Preconditions for Successful Arts, Humanities and Social Sciences Integration. <a href="https://doi.org/10.5281/zenodo.4478450">https://doi.org/10.5281/zenodo.4478450</a></p> <p>Vienni Baptista, B., Fletcher, I., Maryl, M., Wciślik, P., Buchner, A., Lyall, C., Spaapen, J. &amp; Pohl, C. (2020). Final Report on Understandings of Interdisciplinary and Transdisciplinary Research and Factors of Success and Failure. <a href="https://doi.org/10.5281/zenodo.3824838">https://doi.org/10.5281/zenodo.3824838</a></p> <p>Vienni Baptista, B., Lyall, C., Ohlmeyer, J., Spaapen, J., Wallace, D., &amp; Pohl, C.. (2020). Improving pathways to interdisciplinary and transdisciplinary research for the Arts, Humanities and Social Sciences: first lessons from the SHAPE-ID project – Policy Brief. <a href="https://doi.org/10.5281/zenodo.3824953">https://doi.org/10.5281/zenodo.3824953</a></p> <p>Wallace, D., de Moura Rocha Lima, G., Sessa, C., &amp; Ohlmeyer, J. (2021). Maximising arts, humanities and social sciences integration in inter- and transdisciplinary research for effective responses to societal challenges. <a href="https://doi.org/10.5281/zenodo.4442374">https://doi.org/10.5281/zenodo.4442374</a></p>