



SSH integration analysis: A research-on-research approach to EU framework programmes

The paper in a nutshell

Monitoring integration is an important obligation for the Framework Programme to deliver truly interdisciplinary programmes. In this paper, EASSH presents an analysis using quantitative and qualitative data, already publicly available on the EU websites, to analyse SSH integration in health challenge in H2020 and Health cluster in HEu as a key area where SSH and bioscience work closely together. While our results show that the overall integration is very low and has not improved between Horizon 2020 and Horizon Europe, our study reveals that we have options for better analysis and pathways to improve the design of the next framework programme (FP10).

Key recommendations:

- 1. Monitoring of interdisciplinary integration and other policy priorities can be pursued collecting the right data. Under the next framework programme, a commitment is required to collecting new information during the proposal submission process and the project implementation phase that will enable and support better 'research-on-research' methods.
- 2. Data should be made publicly available to allow research-on-research teams to provide further insights and develop new methods.
- 3. The system of 'flagging' does produce a positive effect to integrating more SSH and must be retained in FP10. Further specific and clear actions must support the overall policy for integration.
- 4. The process for the call topics drafting and the discipline background of evaluators is key to integration. It is critical that SSH expertise is engaged throughout the process to draft calls and select projects. We recommend that the Commission examine the related processes. This is crucial considering the relevance of SSH in shaping markets and environments for societal well-being, in the creation of a stronger EU innovation landscape as recommended in the Draghi Report¹.
- **5.** Programme evaluation requires similar integration of SSH expertise.

¹ Draghi, M (2024) EU competitiveness: Looking ahead



Introduction

Monitoring integration is an important obligation for the Framework Programme to deliver truly interdisciplinary programmes. A method which goes beyond inputs indicators is key for accuracy. We have already mentioned in our April 2024 position paper the following recommendations:

- 1) The monitoring of SSH integration in Horizon Europe needs a more robust and transparent evaluation methodology
- 2) A new method should include both qualitative and quantitative approaches
- 3) The method should take advantage of the availability of different uses of topic analysis to understand the contribution of SSH across the programme

As the gravitational pull of FP10 accelerates the debate on the future shape of the EU flagship research framework programme, much remains to be decided. One of the more important, and arguably least discussed questions, is how the next framework programme will better integrate different scientific fields into the research projects, in particular, social sciences and humanities research. This is not a new challenge. The European Commission has been talking about 'multi-disciplinary' or 'trans-disciplinary' research for a generation, in the belief that answers to complex problems require contributions from across all fields of scientific expertise.

The Commission's final report on just one dimension of this, the integration of SSH into Horizon 2020, shows two things very clearly: integration is difficult, and we need to be better equipped to analyse and understand the data to deploy better structures for integration.

In this paper, we look at existing options to produce a more robust analysis of the integration of SSH across Horizon 2020 (H2020) and Horizon Europe. We identify recommendations for the design of the next research framework programme. This paper highlights some of the results from an analysis carried out by Raf Guns (University of Antwerp) and Jon Deer (City, University of London) and presented at the conference "#StrongerTogether: SSAH and the future of evidence-informed policymaking", May 2024.²

The integration of social sciences and humanities in H2020

The findings of the European Commission's own monitoring report³ on SSH integration in H2020 are concerning. The report reveals that almost 40% of the projects awarded under the topics identified as requiring research contributions from social science and humanities (flagged topics⁴) had no or weak integration of SSH.

Taking the specific example of the Health Social Challenge, one could expect that SSH play an important role in understanding the social and policy dimensions of medical and health care. Yet, in the Societal Challenge for Health, close to 50% of projects in flagged topics had no or weak SSH integration. This means that half of the projects in areas specifically identified as requiring SSH contributions had little or no SSH.

² The conference <u>Stronger Together</u> was held in Brussels on 5-6 May 2024. A report will be published shortly

³ European Commission: Directorate-General for Research and Innovation, *Integration of social sciences* and humanities in Horizon 2020 – Participants, budgets and disciplines 2014 - 2020 – Final monitoring report, Publications Office of the European Union, 2023, https://data.europa.eu/doi/10.2777/075642
⁴ P.21, Section 10 Social Sciences and Humanities (https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf)



While this is disappointing, we at EASSH believe the report overstates even this low level of integration. In the remainder of the paper, we look at better options for use of data and analytical tools to give a more robust set of results.

Methodological considerations: Looking behind input indicators

The European Commission's monitoring report focusses on identifying SSH related input indicators (e.g. budget, SSH partners' participation in projects, and SSH disciplines represented) and itself acknowledges that such a methodology cannot properly measure the real degree of interdisciplinary collaboration.⁵

EASSH suggests that a different set of questions would provide more robust insights to integration, for example:

- 1. Which research themes appear in project descriptions?
- 2. In what kind of academic disciplinary publications are the results or outputs from projects published?
- 3. Does a project use or develop theories, methods or concepts from SSH?

We already have databases that can help us answer some of these questions. In the next section, we'll set out some findings of our own analysis of the integration in H2020 and Horizon Europe (HEu) to answer two of the first two questions.

Method 1: Project topics and themes - EuroSciVoc

For this first alternative analysis we looked to the Commission's own framework for allocating funded projects to broad academic disciplines or research topics using the EuroSciVoc (European Science Vocabulary⁶) taxonomy. There is a detailed explanation on the EU website, but in brief the approach uses AI and natural language processing (NLP) to identify the main themes and topics in the abstracts of projects funded in H2020. These are then used to categorise the funded projects according to academic discipline or research field, in an extension to the categories set out in the OECD Frascati Manual⁷.

In a pilot, we focussed on the societal challenge Health in H2020 and the Health Cluster in HEu because there is a significant set of 'flagged topics' reflecting the strong social dimension alongside the clinical and medical approaches. As in the monitoring report, we look at the projects awarded and compared our assessment – using the EuroSciVoc classification – to that in the Commission's report.

Results:

According to the Commission's method in their monitoring report, 51% of the projects under 'flagged topics' have fair/good integration of SSH in the health challenge. However, in our analysis

⁵ European Commission, Directorate-General for Research and Innovation, *Integration of social sciences* and humanities in Horizon 2020 – Participants, budgets and disciplines 2014 - 2020 – Final monitoring report, Publications Office of the European Union, 2023, p. 58,

https://data.europa.eu/doi/10.2777/075642.

⁶ https://op.europa.eu/en/web/eu-vocabularies/euroscivoc

⁷ https://www.oecd.org/en/publications/frascati-manual-2015 9789264239012-en.html



using the European Commission's own EuroSciVoc classification method shows that as little as 23% of the projects funded under flagged topics in H2020 have a SSH focus (Figure 1). In HEu, our analysis shows that only 13% of projects funded under flagged topics have a SSH dimension (Figure 2).

Figure 1: Horizon 2020 Projects Research Fields (EuroSciVoc)

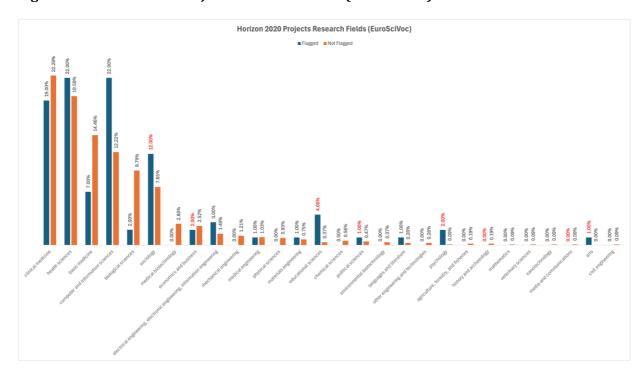
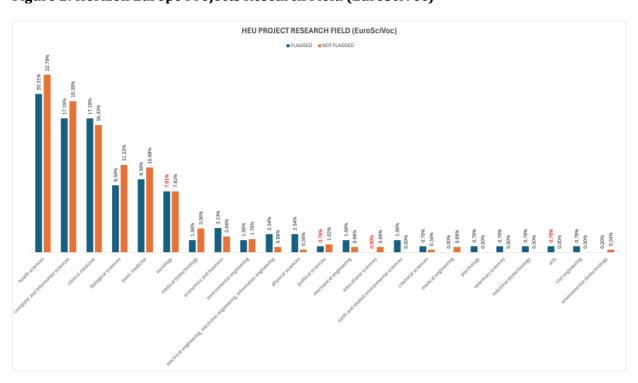


Figure 2: Horizon Europe Projects Research Field (EuroSciVoc)





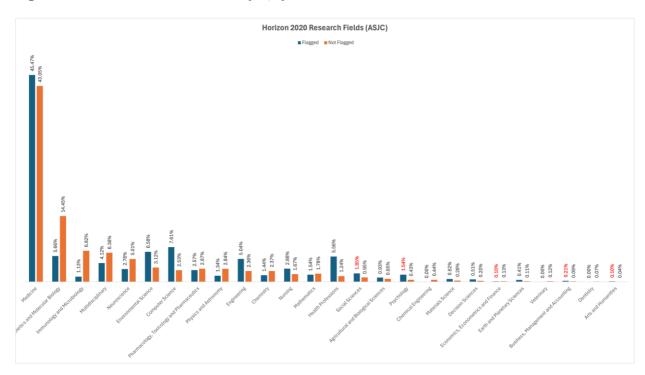
Method 2: Projects and publications

Moving from input measure used by the Commission in their report, we looked at output measures, like academic publications. We looked at the Commission's own database collecting the publications produced by projects funded under Horizon 2020. This method potentially represents a more robust indication of the disciplinary contributions to projects and reflects the culture of academic publication.

While researchers can work in multi-disciplinary teams, they retain the tendency to publish articles in the journals connected to their own 'home' disciplines or research fields. Bibliometric data set allows us to connect projects to academic disciplines through the journals in which researchers publish. We were unable, however, to use the same method for HEu projects. This is because the available publications linked to awarded projects are still too small in number for analysis and it appears to EASSH that HEu projects publish proportionally less than H2020 in the same period.

Results: We used this method to detect SSH integration in projects funded under the health challenge. Only around 4% of publications resulting from projects under the flagged topics are in a SSH discipline/research field (Figure 3). Across the wider health challenge, in flagged and unflagged topics, less than 2% of publications are in SSH fields.







Broader Observations

The results using EuroSciVoc and bibliometrics methods to assess SSH integration suggest that the EU monitoring report has overstated the level of integration. However, there are other observations worth highlighting:

- Flagged topics do result in higher levels of SSH integration.
- At least in the Health Cluster, the results in HEu show a decline of integration compared to H2020. A more in-depth analysis is required for the other clusters. However, this means that programme call design has not yet managed to address clear bottlenecks for SSH participation.
- A commitment to the policy to integrate SSH is not sufficient to improve outcomes, if we accept first results of our pilot that show that SSH integration appears to be lower in HEu than in H2020.
- Options for mining topic information from the project abstracts and objectives offer richer insights to highlighting topics and the integration of SSH. Examples of the results are included in the see Annex 1, see Figure 4, Figure 5. Other relevant information that could be collected are the background of the work package leader and main principal investigator/s.
- All of the presented methods use existing data, yet they apply different methods of analysis. Even more revealing would be the opportunity to analyse funded projects vis a vis the unfunded projects. The comparison will better identify if participation is limited by the call description or impacted by the evaluation process.

Conclusion

In this paper we have described two approaches to more robust observations on the success of policies to encourage the integration of SSH in the European framework programme. These approaches use data and data-driven methods which are publicly available. However, the data is collected as administrative data during the application and implementation phase of projects and not for the purposes of research.

During this design phase of FP10, EASSH calls for data collection across the programme to support not only the administration of the programme but to make it easier to carry out research-on-research using the available data.

We also encourage the European Commission to make as much of this data as possible freely available for researchers. This would enable them to lead work on better understanding whether the programme is achieving its objectives and if not, what are the barriers to success.

Recommendations

- 1. Monitoring of interdisciplinary integration and other policy priorities can be pursued collecting the right data. Under the next framework programme, a commitment is required to collecting new information during the proposal submission process and the project implementation phase that will enable and support better 'research-on-research' methods.
- 2. Data should be made publicly available to allow research teams to provide further insights and develop new methods.



- 3. The system of 'flagging' does produce a positive effect to integrating more SSH and must be retained in FP10. Further specific and clear actions must support the overall policy for integration.
- 4. The process for the call topics drafting and the discipline background of evaluators is key to integration. It is critical that SSH expertise is engaged throughout the process to draft calls and select projects. We recommend that the Commission examine the related processes. This is crucial considering the relevance of SSH in shaping markets and environments for societal well-being, in the creation of a stronger EU innovation landscape as recommended in the Draghi Report⁸.
- 5. Programme evaluation requires similar integration of SSH expertise.

EASSH is the largest umbrella organisation for SSH in Europe with over 70 members including universities, disciplinary associations, and corporate associate partners. Our mission is to promote learning and research in the social sciences and humanities (SSH) as a resource for Europe and the world, and to engage with policymakers and research funders in support of the social sciences and humanities.

⁸ Draghi, M (2024) EU competitiveness: Looking ahead



Annex 1

Figure 4. Topic analysis

Shows the 'topics' present in the abstracts of projects funded under the Horizon 2020 health challenge as clusters of 'topics'.

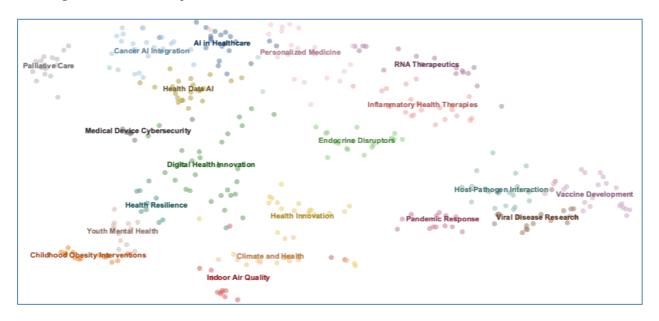


Figure 5. Topic analysis and SSH integration

Shows the 'topics' as they relate to the integration of SSH research into the broader contributions from across the research fields. The nodes coloured progressively yellow demonstrate an increased level of SSH topic content.

