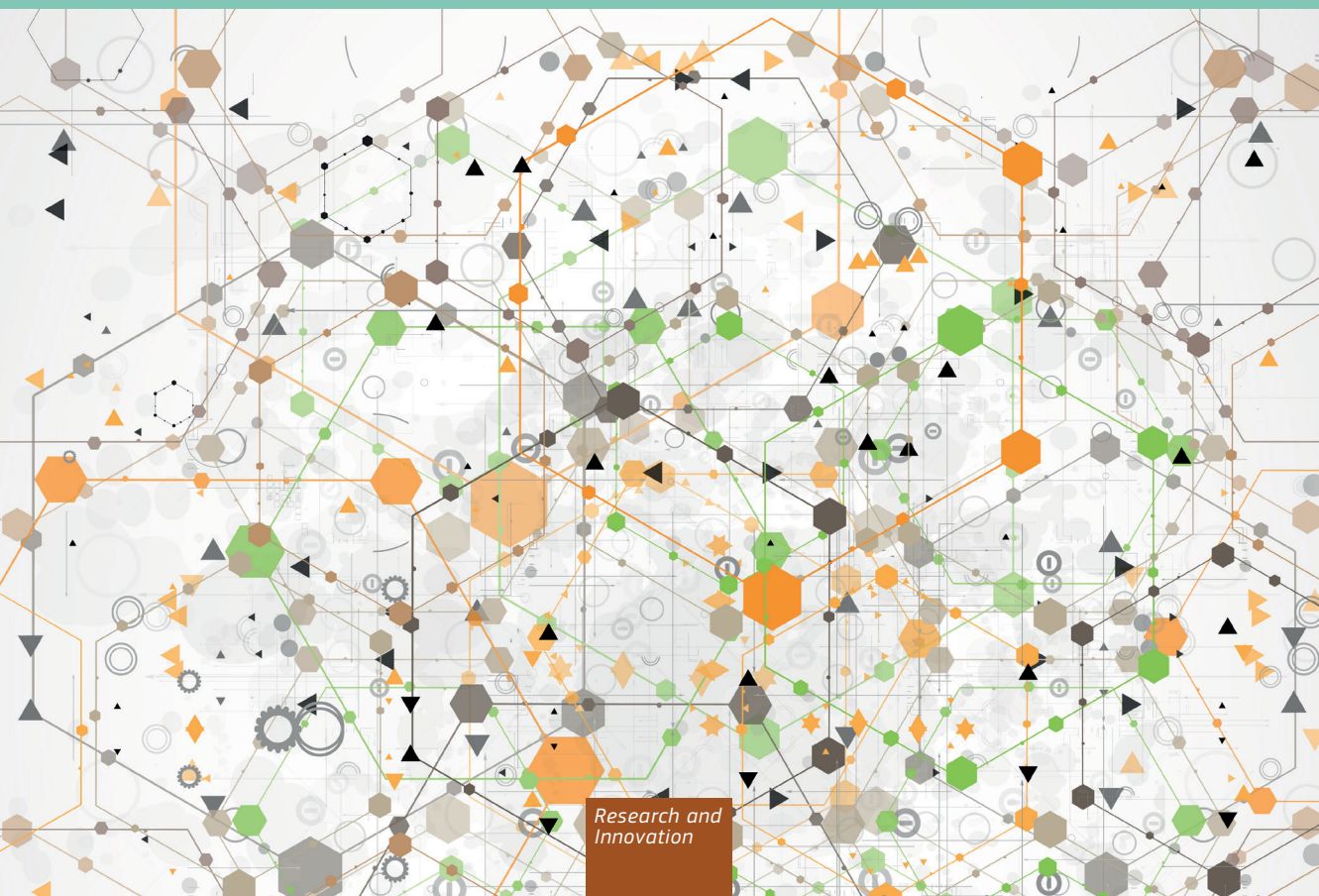
European Commission

# Integration of **Social Sciences** and **Humanities** in Horizon 2020: Participants, Budget and Disciplines

## 4th Monitoring report on SSH flagged projects funded in 2017 under the Societal Challenges and Industrial Leadership priorities



Research and Innovation

**Integration of Social Sciences and Humanities in Horizon 2020: Participants, Budget and Disciplines - 4th Monitoring report on SSH flagged projects funded in 2017 under the Societal Challenges and Industrial Leadership priorities**

European Commission
Directorate-General for Research and Innovation
Directorate B — Open Innovation and Open Science
Unit B.6 — Open and Inclusive Societies

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EUROPEAN COMMISSION

# Integration of Social Sciences and Humanities in Horizon 2020: Participants, Budget and Disciplines

## 4th Monitoring report on SSH flagged projects funded in 2017 under the Societal Challenges and Industrial Leadership priorities

Edited by Krzysztof Kania, Catherine Lemaire and Lena Swinnen

Data regarding SSH in the ERC have been provided by Lino Paula and Laura Kasnauskaite at the European Research Council Executive Agency (ERCEA). Data on MSCA were provided by Martin Muehleck and Przemysław Jankowski in DG EAC Maria Skłodowska-Curie Actions unit, while RI data were provided by Maria Theofilatou in DG RTD Research Infrastructures unit. The quantitative analysis of the data for societal challenges (SCs) and Industrial Leadership LEITs was provided by Natalia Morazzo and Marco Galeotti from the Agenzia per la Promozione della Ricerca Europea (APRE). The authors would also like to thank Tobias Bade Strøm from the Research Council of Norway for his contribution to this report.

Directorate-General for Research and Innovation
2019 Europe in a changing world – Inclusive, innovative and reflective societies

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# Foreword

Dear Reader,

The integration and monitoring of social sciences and humanities (SSH) in Horizon 2020 programme is a new approach in the EU research programmes. It stems from the realisation that our societal challenges are far too complex for only one discipline or a group of disciplines to deliver on. In general terms, SSH plays a key role in analysing and influencing behavioural and societal choices so that better policies can be devised in the future with a direct societal impact. In this context, the fostering of SSH integration offers almost endless opportunities.

While SSH integration has a solid basis in Horizon 2020, it still needs to be further developed and deepened. It has been a precursor for a profound multidisciplinary approach in European research, which will be further enhanced within the future Horizon Europe programme. To make a real difference at European level and strengthen the impact of the future research programme we must strengthen cooperation between Social Sciences and Humanities (SSH) and Science, Technology, Engineering and Mathematics (STEM) and make this a natural and common phenomenon, instead of the often-perceived tension between the two sectors.

Therefore, this fourth edition of the SSH monitoring report, which covers 2017 data, provides key insights and lessons learnt, while aiming for a more comprehensive, effective and impact driven approach in the future. The findings from the previous and present reports have already influenced to a great extent our pathways to societal impact, as well as our novel approach to cooperation, co-creation and multidisciplinarity in Horizon Europe. However, we can fully harvest the fruits of this effort only in the future programme.

These findings have helped to start breaking the classical boundaries between disciplines, sectors and policy areas. They have also initiated more interest of the stakeholders in the co-design and the co-creation process. For these reasons, we are giving much stronger emphasis to SSH aspects in the co-creation and co-design process in preparing Horizon Europe with a view to establishing a more holistic approach to SSH integration. It will cover the entire cycle from co-creation and co-design, to the selection and implementation of projects. For topics that have been identified as SSH relevant, SSH expertise, in the future, should be integrated in a meaningful and more binding way. The earlier SSH expertise is integrated in a project - not merely as an add-on element - but as a core element, the more impact it can create.

This year to give a more comprehensive account of the role of SSH in Horizon 2020, we have further broadened the scope of this report, while still building on the core of monitoring and reporting about the pillar on societal challenges. As a result, we have included Maria Skłodowska-Curie Actions (MSCA) and Research infrastructures (RI), as well as Future Emerging Technologies (FET). In addition to our findings on fundamental research through the European Research Council (ERC) which was already added to the report last year.

We hope that the publication of this report will raise a keen interest in the research and innovation (R&I) community at large and beyond, paving the way for an open and constructive debate about the future of social sciences and humanities in Europe.

Jean-Eric Paquet
Director General DG RTD

# 1. Executive Summary

Many current societal challenges are far too complex for only one scientific discipline to deliver on. This is why technical solutions are often a precondition for a new policy outcome but may not be sufficient to produce a meaningful societal impact, which also requires the insight of social sciences and humanities. Therefore, a two-fold approach to SSH is achieved through a dedicated societal challenge (SC 6) focusing on SSH disciplines, and in addition SSH integration across the programme.

This report describes the integration of social sciences and humanities (SSH) in the topics and projects of the year 2017. It covers all SSH flagged topics of the calls for proposals of 2017, as well as projects selected under those calls. The flagging of topics is closely linked with their relevance for SSH related disciplines. Therefore, the ultimate goal is not to flag SSH as many topics as possible, but rather to focus on those for which the inclusion of SSH disciplines effectively makes sense and where they have a clear added value. Therefore, the flagging of topics has to be viewed not only from a purely quantitative but also from an increasingly qualitative point of view.

The most important results of the report and key trends for the period 2016-17:

- Funding: The part of the overall annual budget going to SSH has gone up from 7% in 2016 to 8.5% in 2017. For topics flagged for SSH the share of programme budget went up from 20 to 23% for this period. At the same time the number of SSH flagged topics continues to increase significantly, from 84 in 2016 to 113 in 2017.

- Quality: The share of projects with at least one SSH partner is clearly on the rise from 71% to 86%. Using the 20% qualitative threshold results are slightly improving from 39% in 2016 to 41% in 2017. In addition, there is a stable trend in the proportion of SSH partners funded under flagged topics, with 27% in 2016 and 28% in 2017.

- Sectoral areas: Societal Challenge (SC) 6 – 'Europe in a changing word – Inclusive, innovative and reflective societies' is still very present for natural reasons, but SC 1 'Health, Demographic Change and Wellbeing', SC 2 'Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy' as well as SC 5 'Climate action, environment, resource efficiency and raw materials' are also doing quite well, while SC 4 'Smart, green and integrated transport' experiences a drop since 2016.

- Disciplines: As in previous years, economics is the dominant discipline, but also political science/public administration and business/marketing perform well. The Humanities/Arts and several Social Sciences are still involved only in a limited number of projects under flagged topics.

- Countries: The distribution of countries from which the partners originate is similar to Horizon 2020 overall. Seven countries from the EU-15 are dominating the landscape, while the member states which joined the EU since 2004 onwards, seem to be less widely represented.

- New areas included in this edition of the report, such as MSCA, FET and RI also show a fair level of SSH integration.

Although the number of SSH flagged topics has increased as compared to previous years, what counts in the end is the societal impact SSH integration can create. To this end DG RTD is developing pathways to impact for the new Horizon Europe, which will improve SSH involvement in the future programme. As this approach is currently under preparation and will only be operational for the new programme, it will not yet affect the reporting of SSH integration on the Horizon 2020 programme. Overall, while Horizon 2020 and its approach lay the foundations for the future, the more significant improvements will only be visible in new programme.

In order to assess SSH integration a comprehensive methodology has been developed (described in detail in part 2), but which is a proxy for measuring the impact of SSH throughout the programme. The scope of the report has also been gradually extended: ERC data is available since last year's edition and since this year MSCA, RI, and FET are also covered while developing a methodology best suited to look at these findings in a meaningful way. To evaluate the extent of SSH integration a set of composite indicators are included below, which show how well SSH is integrated across a number of programme parts.

Table with key findings[1]:

| | Number of SSH-flagged topics | Share of projects with at least one SSH partner | Involvement of SSH partners in projects funded under SSH-flagged topics | Amount and share of budget allocated to SSH partners in SSH-flagged topics | Quality of SSH integration |
|---|---|---|---|---|---|
| 2014 | **98** | **71%** 219 out of 308 projects funded under SSH-flagged topics have at least one SSH partner in the project | **26%** of the total number of consortia partners in projects funded under 2014 SSH flagged topics (19% when excluding SC6) are SSH partners | **EUR 236 million 21%** EUR 236 million (from which more than 70 million came from SC6) - amounted to 21% of the estimated total budget for 2014 SSH flagged topics (EUR 1.1 Billion) | **With 10% threshold** Good: 40% None: 28% |

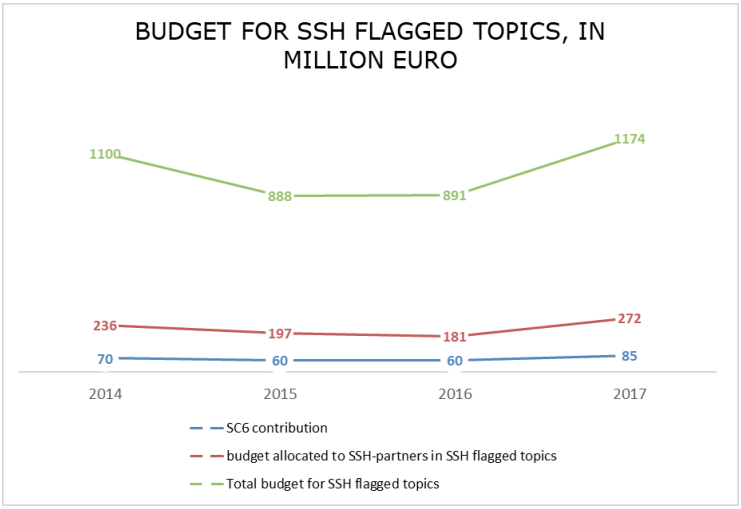
1 It is important to underline that only RIAs, CSAs and IAs are included in this report, and instruments such as ERA-NETs/co-funding and public procurement are not, as this makes it easier to compare results between Work Programme parts, in particular for Societal Challenges. As a result, the share of budget for SSH presented here i.e. in absolute terms may reflect part of the total picture in pillars 1 and 2 of Horizon 2020. Data shows that as a percentage of overall funding, the share dedicated to SSH has increased from 2016 to 2017, see below and in chapter 3 under the general assessment.

| | | | | | |
|---|---|---|---|---|---|
| 2015 | **83** | **84%**<br>197 out of 235 projects funded under SSH-flagged topics have at least one SSH partner in the project | **27%**<br>of the total number of consortia partners in projects funded under 2015 SSH flagged topics (20% when excluding SC6) are SSH partners | **EUR 197 million**<br>**22%**<br>EUR 197 million (from which more than 60 million came from SC6) - amounted to 22% of the estimated total budget for 2015 SSH flagged topics (EURO 888 million) | **With 10% threshold**<br>Good: 57%<br>None: 21%<br><br>**With 20% threshold**<br>Good: 39%<br>None: 24% |
| 2016 | **84** | **71%**<br>169 out of 239 projects funded under SSH-flagged topics have at least one SSH partner in the project | **27%**<br>of the total number of consortia partners in projects funded under 2016 SSH flagged topics (21% when excluding SC6) are SSH partners | **EUR 181 million**<br>**20%**<br>EUR 181 million (from which more than 60 million came from SC6) - amounted to 20% of the estimated total budget for 2016 SSH flagged topics (EURO 891 million) | **With 10% threshold**<br>Good: 49%<br>None: 29%<br><br>**With 20% threshold**<br>Good: 39%<br>None: 33% |
| 2017 | **113** | **86%**<br>225 out of 262 projects funded under SSH-flagged topics have at least one SSH partner in the project | **28%**<br>of the total number of consortia partners in projects funded under 2017 SSH flagged topics (22% when excluding SC6) are SSH partners | **EUR 272 million**<br>**23%**<br>EUR 272 million (from which 85 million came from SC6) - amounted to 23% of the estimated total budget for 2017 SSH flagged topics (EURO 1174 million) | **With 10% threshold**<br>Good: 56%<br>None: 21%<br><br>**With 20% threshold**<br>Good: 41%<br>None: 27% |

***The quantitative integration of SSH is on the rise***

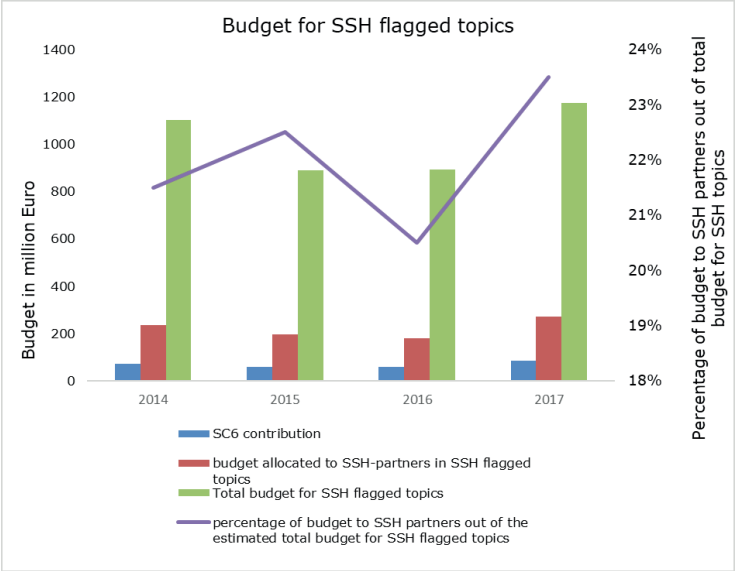
This fourth report on SSH integration in H2020 in 2017, is based on 262 projects funded under 113 SSH flagged topics out of a total of 302 (almost 37.5% of all topics were flagged for SSH). This is a significant increase in relation to previous years, particularly 2016 (+34.5%) and 2015 (+36.2%).

In 2017 these 113 SSH flagged topics featured a total budget of €1.174 billion, which represents an important increment (+31.8%) in comparison to 2016. It also constitutes a fairly high share of the overall Horizon 2020 budget with 37.3%.




In terms of the budget share of SSH partners under SSH flagged topics there is an increase in this key proportion: 23% in 2017 compared with 20% in 2016. This issue remains crucial in terms of further effective SSH integration.

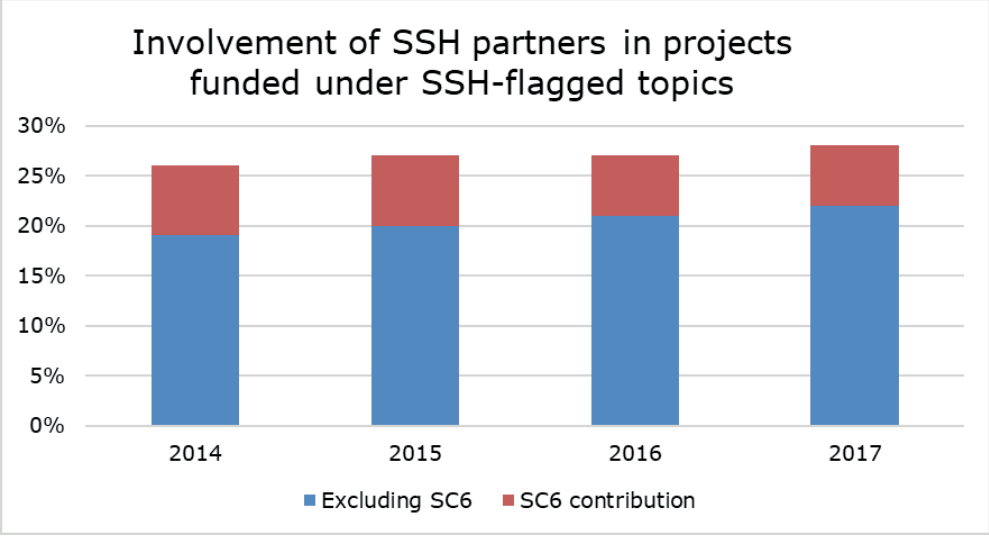
In terms of funding, €272 million out of the €1.174 billion allocated in 2017 to the SSH flagged topics were awarded to SSH partners, with € 196 million under the Societal Challenges pillar and only €33 million under the LEIT (Leadership in Enabling Technologies) pillar. This constitutes a very large increase in absolute terms compared with 2016 (+ €91 million in 2017), as well as in relative terms with a rise of +66.5% in 2017 (also compared with 2016). This is an unprecedented increase in terms of SSH financing, superseding even the very good 2014 results.



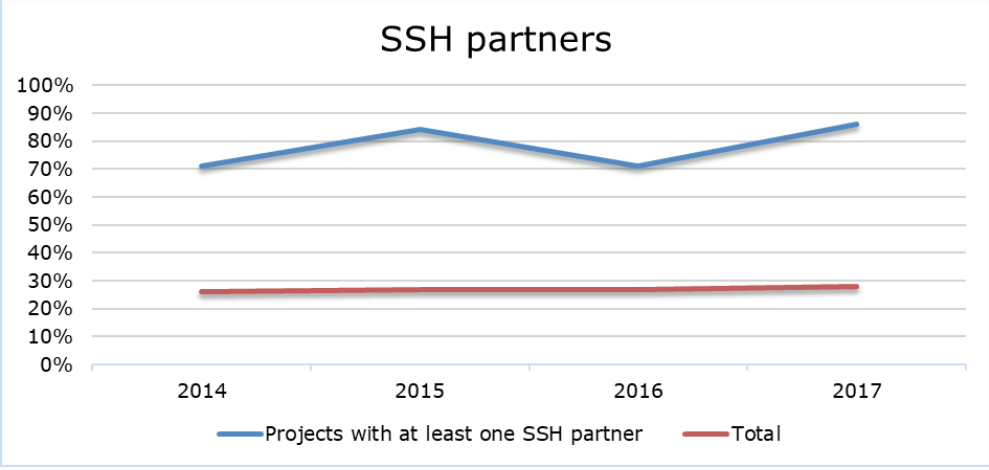
Perhaps even more interesting is the share of the budget going to SSH partners as a percentage of the overall budget (flagged and non-flagged). Here a continuation of a positive trend can be seen where the share went up again from 7% in 2016 to 8.5% in 2017 of Horizon 2020 financing. A similar proportion of investment is visible in other areas, e.g. the research infrastructure.

Societal Challenge 6 (SC 6) accounts for €85 million in 2017, i.e. 31% of the overall amount of €272 million awarded to all SSH partners. This represents a slight decrease compared with 2016 (at 33%) but remains generally stable over the whole reporting period since 2014.

In 2017 some 28% of consortia partners in projects funded under topics flagged for SSH had SSH expertise (27% in 2016). When excluding SC 6, the share of SSH partners amounts only to 22% (21% in 2016), which is a limited improvement in comparison to past years.




Finally, in 2017 some 37 projects out of 262 projects funded under the SSH flagged topics had no SSH partner (14.1%). This is a clear reversal of the previous decline and a fairly favourable trend. The situation in this context is comparable with 2015, when 16% of the projects financed under the SSH flagged topics had no SSH partners involved.



***SSH partners by type of activity.***

Higher education establishments (HES) account for 36% of SSH partners, research organisations (REC) for 15% while public sector institutions (PUB, including national administrations) account for 8%. In addition, 19% of SSH partners come from the private sector (for-profit research organisations, SMEs, consulting agencies, etc.) while the remaining 22% are categorised as 'others' and mainly include civil society organisations. These results are largely similar to the 2015 and 2016 findings in this sector.

When comparing data of individual work programme parts, the types of institutional actors involved vary depending on the societal challenge or LEIT part in question. For instance, higher education establishments and non-profit research organisations account for respectively 57% and 17% of SSH partners in Societal Challenge 6 as compared to only 26% and 10 % respectively in Societal Challenge 7. The private sector accounts for 50% of SSH partners in LEIT SPACE and 42% in Societal Challenge 4, but only for 8% in Societal Challenge 6. These percentages have remained fairly stable during the previous years.

***SSH partners and coordinators by country affiliation.***

In terms of countries represented, the SSH partners come predominantly from the following seven EU Member States: Germany (11%), Belgium (10%), United Kingdom (9%), Italy (9%), Spain (6%), as well as France and the Netherlands (both with 6%). Combined, these top seven countries account for 57% of the SSH partners. Overall it seems that the country affiliation of SSH partners is marginally less concentrated than in 2016 and 2015, but still largely to the detriment of EU-13 member states. Non-EU countries (associated and third countries) participation is also relevant, accounting for 11% of the SSH partners, which remains a stable proportion in comparison to 2016.

In terms of leadership 32% of projects financed under SSH flagged topics are coordinated by an SSH partner. The SSH coordinators came from Germany, Italy, and the UK (each with 15%), as well as Austria (7%) and Belgium (6%). Together, the top five countries account for 58% of SSH coordinators. These are mostly the same countries, which roughly also have the highest share of project partners indicated above.

***Distribution by disciplines.***

Regarding the variety of SSH disciplines in the funded projects, contributions from the fields of political science and public administration (16%) and economics (15%) are well integrated. business/marketing with 11% and Sociology with 8% do fairly well. Some disciplines are practically not represented, such as education (4%), history (3%) and anthropology/ethnology (2%) or geography (1%). One should keep in mind that the non-research related activities (project management and project communication activities) account for as much as 17% of all activities performed by staff with an SSH background, and the remaining 15% are very divided. As in previous years, the humanities/arts remain severely underrepresented. In addition, law/legal studies still featured relatively modest results, with 8% of the involved SSH partners in 2017, compared with 3% in 2016.

***The quality of SSH integration is fairly stable across Horizon 2020.***

For assessing the quality of SSH integration this report applies the same methodology as last year, using four indicators: share of SSH partners, budget of SSH partners, contribution from SSH disciplines and person months performed by SSH. It includes two scenarios for quality, based on two thresholds at 10% and 20% (see the methodology section below). These thresholds seem to be a good indication of the quality of SSH integration in a given project, and serve as a proxy for the level of integration.

*I. When applying the 10% threshold*

In 2017 as much as 56% of projects funded under topics flagged for SSH show good integration of SSH in terms of share of partners, budget allocated to them, person-months, and variety of disciplines involved. However, when excluding Societal Challenge 6, the share of projects with good SSH integration decreases from 56% to 48%. On the other end of the spectrum, 21% of projects have quite low quality in terms of SSH integration.

The quality of integration differs considerably depending on the Societal Challenge or LEIT part. For Societal Challenge 6, as many as 98% of funded projects show a good level of integration of SSH. This is an extremely high number but naturally SC6 is the Work Programme part with most topics dedicated to SSH questions. Both Societal Challenge 5 and LEIT ICT perform well with each having 68% of projects scoring above the ten percent threshold, in addition to Societal Challenge 2 with 56% of the projects showing a strong integration of SSH. In contrast, respectively 21% and 35% of the projects funded under Societal Challenge 3 and Societal Challenge 4 had a high level of quality in 2017.

Compared with 2016, these figures show a relative improvement in terms of integration (55% compared to 49% in 2016) and a decrease in the number of low quality projects in terms of SSH integration (from 29% in 2016 to 21% in 2017). This also shows that results tend to vary often during the programme period, since the results for 2017 in this respect are more similar to those that were seen previously in 2015.

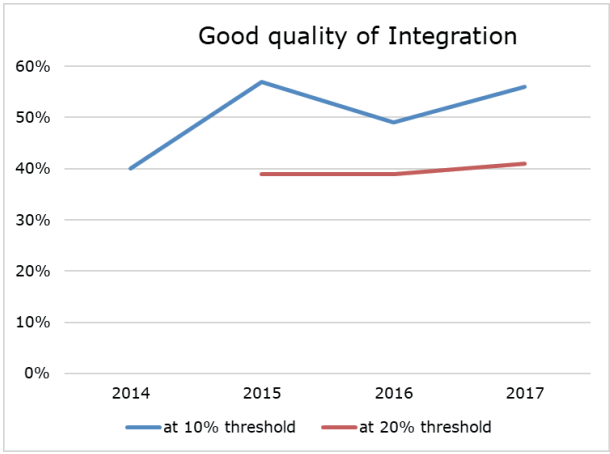
*II. When applying the 20% threshold*

In 2017 as much as 41% of projects funded under topics flagged for SSH show good integration of SSH in terms of share of partners, budget allocated to them, person-months, and variety of disciplines involved. However, when excluding Societal Challenge 6, the share of projects with good SSH integration decreases from 40% to 32%. At the other end of the spectrum, as many as 27% of projects have poor quality in terms of SSH integration.

The quality of integration differs considerably depending on the Societal Challenge or LEIT part. For Societal Challenge 6, as much as 90% of funded projects show a good integration of SSH. LEIT ICT and Societal Challenge 5 also perform well with 52% and 44% of the projects, respectively, showing a good integration of SSH. In contrast, only 19% and 18% of the projects funded under Societal Challenge 4 and Societal Challenge 3 respectively feature high quality SSH integration levels.

As in the case of the 10% threshold as well as compared with 2016, these figures show a relatively higher level of good integration (41% compared to 39% in 2016) and a decrease in the percentage of projects without sufficient quality in terms of SSH integration (27%

compared to 33% in 2016).This is indeed a positive trend, which is yet to be confirmed in the future.




The Monitoring of SSH In Horizon 2020 is a new approach in EU research programmes. It has also been a precursor for a profound multidisciplinary approach in European research. While SSH integration has a solid basis in Horizon 2020, it still needs to be further developed and deepened. Therefore, this report contains concrete recommendations: SSH integration will have to follow a more holistic approach, covering the entire cycle from co-creation and co-design of topics of calls for proposals, to the selection and implementation of projects in a meaningful and more binding way. The earlier SSH expertise is integrated in this process the more impact it can create.

# 2. Methodology

This methodology is a proxy to measure SSH integration. The choice of indicators, i.e. 10% and 20% for quality thresholds and of 66% of SSH experts are therefore an arbitrary decision and are subject to a possible methodological debate. However, it was decided to maintain them also this year in order to ensure comparability of results with previous editions of the report.

The data in this report stems from the grant agreements of the 266 projects selected for funding in 2017 under 113 flagged topics[2] in the Societal Challenges and Industrial Leadership priorities combined. A separate methodology for ERC, MSCA, RI and FET is described below.

This report is not a comprehensive analysis of how the SSH are performing across the Horizon 2020 programme. However, the findings in the report – especially when comparing from one year to the next – are meant to give a good indication of the role SSH plays in Horizon 2020. In this edition, only RIAs, IAs and CSAs were examined. Under other funding instruments such as ERA-Nets and joint calls with other funders, the integration of SSH is more difficult to analyse, which also makes any comparisons between the different Work Programme parts more challenging. In the case of ERA-Nets the national co-financing contribution for SSH is yet to be examined.

All topics were flagged for SSH in the Participant Portal. As such, flagged topics were expected to fund projects in which contributions from SSH practitioners and experts would be integrated to varying degrees. The Societal Challenges funded 229 projects under 100 of these SSH flagged topics, while the Industrial Leadership priority funded 37 projects under the 13 remaining topics[3].

No reliable IT-based solution is yet in place for collecting data on the integration of SSH in Horizon 2020 projects. As a result, like previously, data extraction for the 2017 projects was performed manually, project by project, according to a methodology that is both simple and robust.

SSH partners: Consortium partners (i.e. legal entities) for which 66% or more of the experts listed in the Grant Agreement (Part B) as taking part in the project have an academic and/or professional background in SSH and contribute with this expertise to project activities. This means that consortium partners that have less than 66% of experts with SSH expertise taking part in the project are ***not*** accounted for in this report, although they may still play an important role in their projects. This is one of the features of the report, which could be revisited in future editions.

Budget going to SSH: The total amount of budget given to SSH partners as defined above, in the 262 projects funded under the SSH flagged topics in 2017.

2 The topics only include Research and Innovation Actions (RIA), Innovation Actions (IA) and Coordination and Support Actions (CSA)

3 It is important to bear in mind that some Societal Challenges also contributed topics to focus area calls in other WP parts, thus making the exact contribution of each Societal Challenge sometimes difficult to evaluate.

Activity type: This category is based on the legal status of consortium partners and on their public, commercial, research and educational affiliation[4]. The five activity types used in this report are the ones used by the Common Research Data Warehouse (CORDA).[5]

| | |
|---|---|
| HES | Higher or secondary education establishments |
| REC | Research organisations |
| PUB | Public body (excluding research organisations and higher or secondary education establishments) |
| PRC | Private for-profit entities (excluding higher or secondary education establishments) |
| OTH | Others |

Distribution by disciplines: This category provides aggregated data on the distribution of SSH expertise across projects. It indicates what percentage of projects includes partner-level expertise in each of the following 13 disciplines or groupings of disciplines:

- anthropology (excluding physical anthropology) and ethnology;
- economics;
- business and marketing;
- human geography and demography (excluding physical geography);
- education;
- communication;
- history;
- humanities and the arts (archaeology, area studies, ethics, interpretation and translation, languages and cultures, literature, linguistics, philosophy, religion and theology);
- political science, public administration;
- law, legal studies;
- psychology;
- sociology;
- non-research activities (project management and project related communication activities).

Novelties introduced in the 2015 and 2016 reports were kept:

- in order to have more precise figures on SSH disciplines, the number of experts is counted per discipline in each project;
- SSH experts whose contribution to the projects is not research but only communication and project management is counted separately. For instance, if a partner is an SSH partner and is in charge of the work package on communication all the experts will be counted as non-research. Moreover, if the coordinator is an SSH partner, automatically one of its experts is counted as non-research;
- SSH disciplines are disaggregated into 13 groupings.

4 This information is collected from consortium partners through the online Unique Registration Facility and then validated during the negotiation stage of the grant agreement.

5 The five categories used by CORDA are mutually exclusive so that a project partner can fall under only one category. For example, although an entity can be both a higher education establishment (HES) and a research organisation (REC), the entity will be classified as a higher education establishment (HES). Also, commercial for-profit research organisations will only appear under the category private for-profit entities (PRC).

Quality of SSH integration: This category is a composite project-level indicator, which indicates to some extent the degree of SSH integration. It considers the performance of each project along four criteria and associated thresholds, assessing whether:

- the share of SSH partners is higher than 10%;
- the budget going to SSH is higher than 10%;
- person-months by SSH partners are higher than 10%;
- contributions from the SSH came from at least two distinct SSH disciplines.

In a second scenario a threshold of 20% was applied for the three criteria. In this case the quality of integration is calculated according to the following criteria:

- the share of SSH partners is higher than 20%;
- the budget going to SSH is higher than 20%;
- person-months by SSH partners are higher than 20%;
- contributions from the SSH came from at least two distinct SSH disciplines.

The quality of SSH integration in each project is assessed according to the following scale:

| | |
|---|---|
| None | No threshold is met for any of the four criteria |
| Weak | Threshold met for one criterion only |
| Fair | Threshold met for two or three criteria |
| Good | Threshold met for all four criteria |

Novelties for 2017:

The absolute figure when it comes to budget for pillar II has gone up since the previous report, but this does not necessarily represent a general trend across the whole of the programme. The most interesting feature remains the share of the budget going to SSH partners, i.e. as compared with the total available budget.

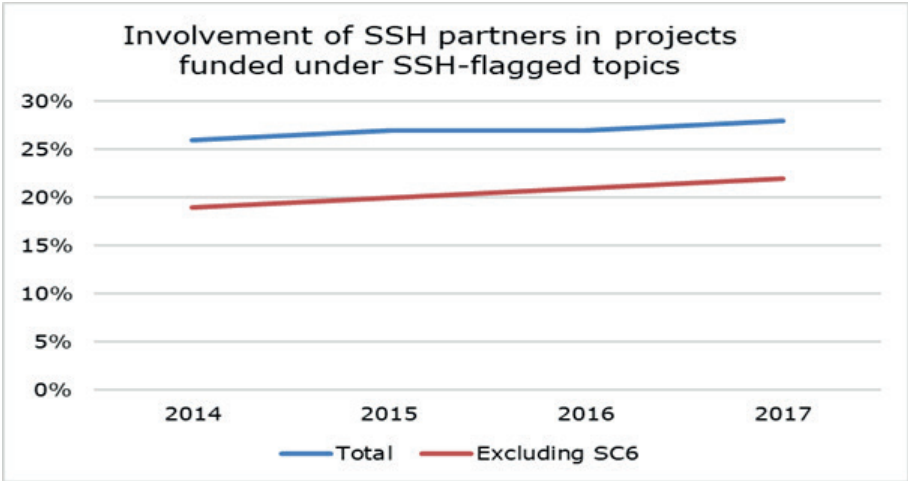
As in 2016, an overview of the data on the European Research Council (ERC) was also included this year. In addition, this report examines the SSH component of MSCA based on the composition of panels, of FET based on presence of the SSH dimension, as well as of RI as regards infrastructure related to SSH activities.

# 3. Integration of SSH in the 2017 Calls of the Societal Challenges and Industrial Leadership Priorities: General Assessment

## 3.1 General Trends

In the fourth year (2017) of the implementation of SSH integration in Horizon 2020 overall the results of the monitoring process are visibly improving, e.g. in comparison with 2016, both in quantitative as well as qualitative terms, although at a very different pace in those two areas.

At the same time the number of SSH flagged topics continues to increase significantly, but this phenomenon does not seem to be accompanied by a noticeable improvement in the quality of SSH integration, which could potentially become a problematic evolution, especially in the long run, with SSH becoming more and more an add-on aspect to STEM projects.




When moving from the second to the third Work Programme, there is a considerable shift in long-term trends since 2014. There were fewer projects under SSH flagged topics in 2017 without SSH content than in many previous years, which is a positive development in itself. In addition, in 2017 significantly fewer funded projects had practically no SSH aspects/disciplines/partners incorporated. At the same time the share of projects with a so-called good integration level - meeting all four qualitative criteria – has also slightly increased. This encouraging evolution is yet to be confirmed by future results of SSH monitoring up until the end of the current programme and in the new Horizon Europe.

The four reports (2014-17) covering the first four years of the Horizon 2020 programme indicate that results per societal challenge part still vary quite considerably. In 2017 Societal Challenge 6 is still very present for natural reasons, but SC 1 'Health, Demographic Change and Wellbeing', SC 2 'Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy' as well as SC 5 'Climate action,

environment, resource efficiency and raw materials' are also doing quite well, while SC 4 'Smart, green and integrated transport' experiences a drop since 2016.

In terms of disciplines and as in previous years, economics is the dominant discipline, but also political science/public administration and business/marketing perform well. The humanities/arts are still involved only in a limited number of projects under flagged topics and are very often grossly underrepresented.

Finally, in the geographical distribution of participating partners there is a gap between the top 7 leading countries in Europe and the rest of the continent, in particular the newer EU-13 member states.

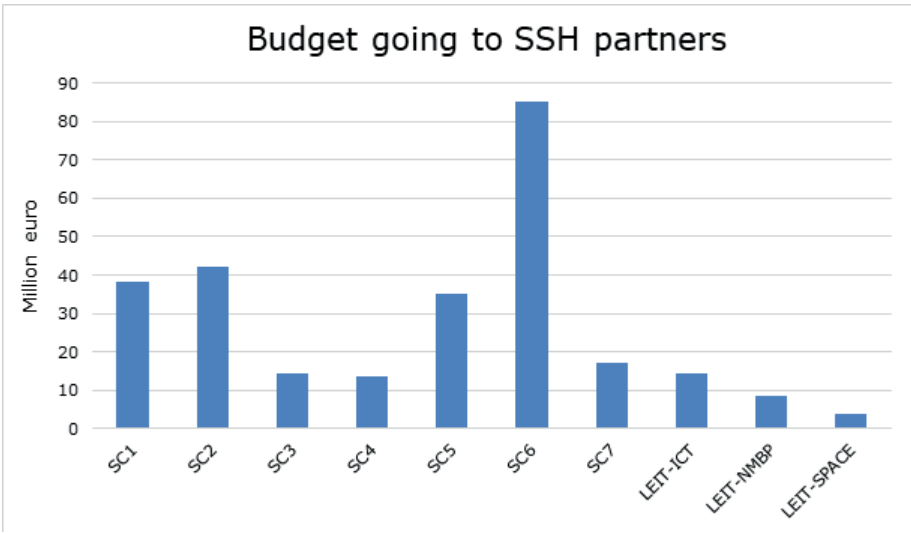
## 3.2 Budget going to SSH

The total funding available for the calls for proposals in the Work Programme 2017 amounts to nearly €3.2 billion, out of which €1.2 billion are dedicated to topics flagged for SSH. This represents a very significant increase in comparison to 2016, especially in absolute terms. Under these topics 273€ million out of the €1.2 billion (i.e. 23%) go to SSH partners. Overall, the share of budget going to SSH partners amounts to c. 8.5% of the total 2017 budget of almost €3.2 billion for SCs and LEITs, which is yet again a clear increase from 7% in 2016, also in relative terms.

| Budget allocated to SSH-flagged topics and to SSH partners (million €) | | | | | |
|---|---|---|---|---|---|
| **Horizon 2020 parts** | **Total budget 2017** | **Budget allocated to SSH-flagged topics** | **Budget going to SSH partners** | **Share of budget going to SSH partners under SSH-flagged topics** | **Share of budget going to SSH partners out of the total call budget** |
| SC1 | 332 | 195 | 38 | 20% | 11% |
| SC2 | 381 | 194 | 42 | 22% | 11% |
| SC3 | 527 | 178 | 14 | 8% | 3% |
| SC4 | 410 | 135 | 14 | 10% | 3% |
| SC5 | 224 | 171 | 35 | 21% | 16% |
| SC6 | 126 | 114 | 85 | 75% | 68% |
| SC7 | 186 | 87 | 17 | 20% | 9% |
| Total SC | 2186 | 1074 | 246 | 23% | 11% |
| LEIT-ICT | 634 | 44 | 14 | 33% | 2% |
| LEIT-NMBP | 260 | 64 | 9 | 14% | 3% |
| LEIT-SPACE | 99 | 5 | 4 | 87% | 4% |
| Total LEIT | 992 | 112 | 27 | 24% | 0% |
| **Total** | **3178** | **1187** | **273** | **23%** | **9%** |
| Total ex. SC6 | 3052 | 1073 | 188 | 17% | 6% |

The budget size for SSH is unsurprisingly the highest in SC6 with €85 million (75%) out of the €114 million allocated to the SSH-flagged topics, followed by SC2 (€ 42 million, 22%), and SC1 (€38 million, 20%) as well as SC5 (€35 million, 21%). Both SC1 and SC2 are making significant progress in this context since 2016. The lowest shares are to be found in SC3 and SC4 (€14 million each, with 8 and 10% respectively) as well as LEIT-NMBP (€ 9 million, 14%) and LEIT-SPACE (€4 million, but representing as much as 87%).

When focussing on budget share instead of budget size, the picture is fairly different. With 87% LEIT-SPACE is now top of the list, followed by SC6 with 75% and LEIT-ICT with 33%. At the same time a large number of programme parts (SC1, SC2, SC5, SC7) is positioned in the 20-22% range. Finally, SC4 and SC3 feature even relatively lower shares in this regard.




## 3.3 Involvement of SSH partners

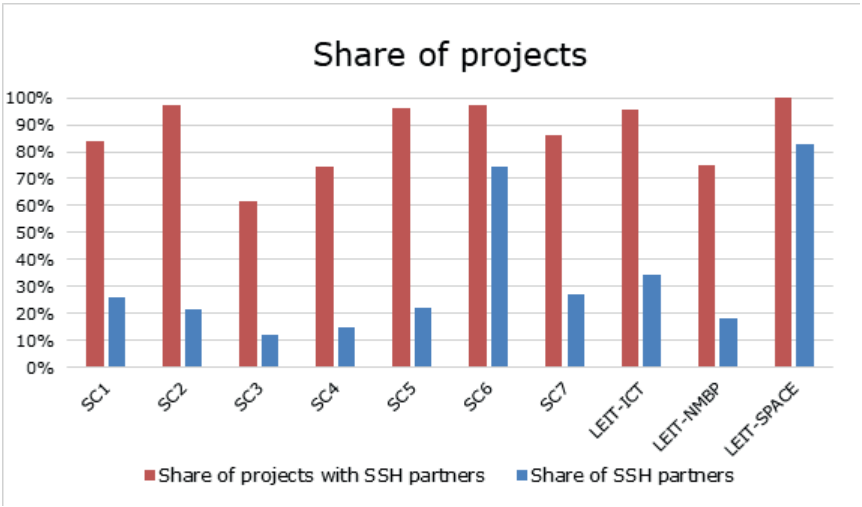
Overall, 28% of consortium partners (i.e. 1014 partners), participating in projects funded under SSH-flagged topics in the Societal Challenges and the LEIT parts of Horizon 2020, contribute to the project with their SSH expertise (22% of partners when excluding SC6). This is a strong increase in absolute terms, but a rather stable situation in relative terms in relation to 2016.

Their share is highest in LEIT-SPACE (83%), SC6 (75%), LEIT ICT (34%) and SC7 (27%) as well as SC1 (26%), while being the lowest in SC3 (12%) and SC4 (15%).

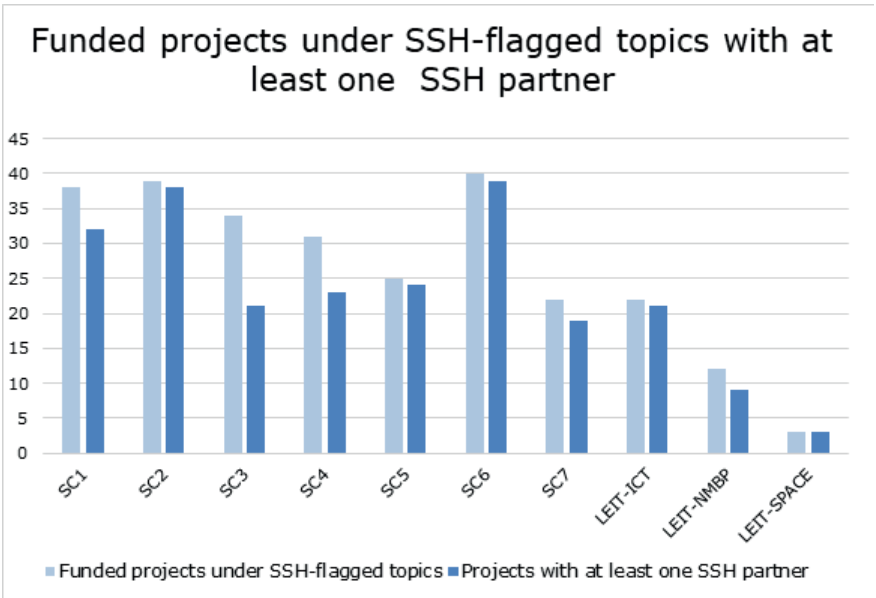
| Involvement of SSH partners in projects funded under SSH-flagged topics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Horizon 2020 parts | Total number of topics | Number of SSH-flagged topics | Funded projects under SSH-flagged topics | Projects with at least one SSH partner | Share of projects with SSH partners | Partners in projects under SSH-flagged topics | SSH partners in projects under SSH-flagged topics | Share of SSH partners |
| SC1 | 15 | 8 | 38 | 32 | 84% | 416 | 109 | 26% |
| SC2 | 50 | 26 | 39 | 38 | 97% | 737 | 160 | 22% |
| SC3 | 42 | 9 | 34 | 21 | 62% | 405 | 48 | 12% |
| SC4 | 32 | 13 | 31 | 23 | 74% | 409 | 60 | 15% |
| SC5 | 22 | 11 | 25 | 24 | 96% | 522 | 114 | 22% |
| SC6 | 29 | 27 | 40 | 39 | 98% | 443 | 331 | 75% |
| SC7 | 16 | 6 | 22 | 19 | 86% | 275 | 74 | 27% |
| Total SC | 206 | 100 | 229 | 196 | 86% | 3207 | 896 | 28% |
| LEIT-ICT | 27 | 4 | 22 | 21 | 95% | 201 | 69 | 34% |
| LEIT-NMBP | 55 | 7 | 12 | 9 | 75% | 165 | 30 | 18% |
| LEIT-SPACE | 14 | 2 | 3 | 3 | 100% | 23 | 19 | 83% |
| Total LEIT | 96 | 13 | 37 | 33 | 89% | 389 | 118 | 30% |
| **Total** | **302** | **113** | **266** | **229** | **86%** | **3596** | **1014** | **28%** |
| Total ex. SC6 | 273 | 86 | 226 | 190 | 84% | 3153 | 683 | 22% |

In terms of SSH involvement, as many as 229 out of 266 (86%) projects funded under SSH-flagged topics in the Societal Challenges and the LEIT parts of Horizon 2020 have at least one SSH partner in the project. This is also a considerable improvement in comparison to 2016.

All projects in LEIT-SPACE and almost all projects funded under the SSH flagged topics in SC6 – and a very vast majority in SC5, SC2 and SC7 - have at least one SSH partner. The share of projects with SSH partners is also extremely high for LEIT ICT with 95%.




However, in SC3 as much as 38% of projects funded under the SSH-flagged topics do not have any SSH partners. This may point to several causes such as limited SSH dimension of the topic texts, barriers to inter-disciplinarity in given scientific fields and/or need for more guidance to evaluators during the evaluation process.




### 3.3.1 SSH partners by country

The vast majority of SSH partners are established in EU Member States (89%), with the remaining established in associated countries (6%) or third countries (5%).

There is a very wide gap between the EU-15 countries at 76% and EU-13 countries at only 13%, which calls for more excellence spreading and widening participation activities towards the newer Member States, in particular those that joined the Union in and after 2004.

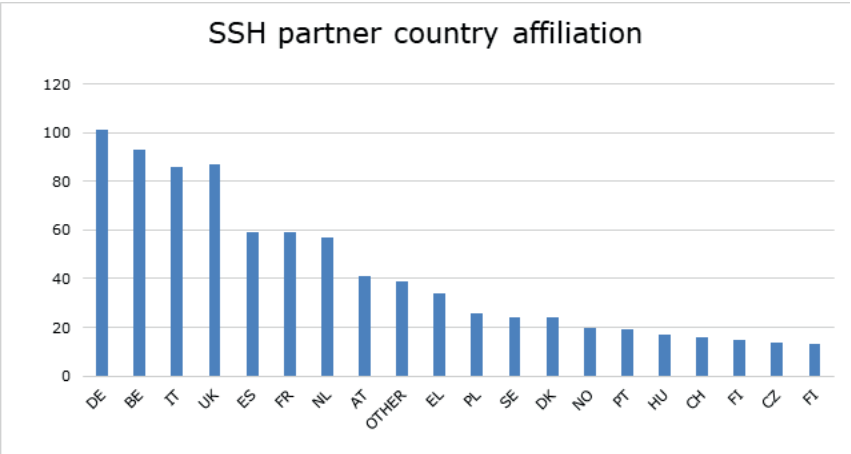
The share of partners from Top 6 countries (DE, BE, IT, UK, ES, FR) is still very high with as much as 52%, and therefore a strong geographical concentration is clearly visible in favour of the EU-15.

| Country affiliation of SSH partners: Sub-groups | | |
|---|---|---|
| | Partners | Share |
| Total | 939 | 100% |
| EU-28 | 835 | 89% |
| EU-15 | 714 | 76% |
| EU-13 | 121 | 13% |
| Associated countries | 56 | 6% |
| Third countries | 48 | 5% |
| Top 6 countries | 485 | 52% |
| Top 20 countries | 824 | 88% |

The 20 most represented countries listed below account for 88% of all SSH partners. Only 3 of them are from the EU-13 (PL, HU, CZ), while two are associated countries (NO, CH).

| Country affiliation of SSH partners - top 20 countries | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Country | DE | BE | IT | UK | ES | FR | NL | AT | Other | EL | PL | SE | DK | NO | PT |
| Partners | 101 | 93 | 86 | 87 | 59 | 59 | 57 | 41 | 39 | 34 | 26 | 24 | 24 | 20 | 19 |
| Share | 11% | 10% | 9% | 9% | 6% | 6% | 6% | 4% | 4% | 4% | 3% | 3% | 3% | 2% | 2% |
| Country | HU | CH | FI | CZ | RO | | | | | | | | | | |
| Partners | 17 | 16 | 15 | 14 | 13 | | | | | | | | | | |
| Share | 2% | 2% | 2% | 1% | 1% | | | | | | | | | | |

At individual country level, Germany is the single most represented country with 101 partners accounting for 11% of total SSH partners. Belgium, Italy and the UK come next, with 93, 87 and 86 partners respectively and a share of close to 10%, followed by the UK (87 partners and a share of 9%), Spain, France and the Netherlands each account for 6% of SSH partners. As a result, 61% of the SSH partners are established in only eight EU-15 countries.



### 3.3.2 SSH partners by type of activity

The majority of SSH partners belong to the realm of publicly funded science and research institutions. As many as 59% of them are affiliated with higher or secondary education establishments (HES, with an individual share of 36%), research organisations (REC, 15%), or public bodies (PUB, 8%). It is worth noting that 19% of all SSH partners come from private for profit entities (PRC), such as for-profit research organisations, SMEs or consultancies.

| Type of activity - SSH partners | | | | | | |
|---|---|---|---|---|---|---|
| Horizon 2020 parts | HES | REC | PUB | PRC | OTH | Total |
| SC1 | 46 | 11 | 6 | 16 | 22 | 101 |
| SC2 | 37 | 33 | 8 | 30 | 40 | 148 |
| SC3 | 11 | 9 | 0 | 16 | 7 | 43 |
| SC4 | 4 | 3 | 9 | 23 | 16 | 55 |
| SC5 | 27 | 13 | 15 | 21 | 32 | 108 |
| SC6 | 173 | 51 | 6 | 24 | 48 | 302 |
| SC7 | 18 | 7 | 22 | 14 | 8 | 69 |
| LEIT-ICT | 16 | 2 | 4 | 14 | 23 | 59 |
| LEIT-NMBP | 4 | 5 | 2 | 10 | 7 | 28 |
| LEIT-SPACE | 0 | 3 | 1 | 8 | 4 | 16 |
| **Total** | **336** | **137** | **73** | **176** | **207** | **929** |
| Total ex. SC6 | 163 | 86 | 67 | 152 | 159 | 627 |

The shares of the various activity types differ considerably depending on the Horizon 2020 part in question.

| Type of activity - share of SSH partners | | | | | |
|---|---|---|---|---|---|
| Horizon 2020 parts | HES | REC | PUB | PRC | OTH |
| SC1 | 46% | 11% | 6% | 16% | 22% |
| SC2 | 25% | 22% | 5% | 20% | 27% |
| SC3 | 26% | 21% | 0% | 37% | 16% |
| SC4 | 7% | 5% | 16% | 42% | 29% |
| SC5 | 25% | 12% | 14% | 19% | 30% |
| SC6 | 57% | 17% | 2% | 8% | 16% |
| SC7 | 26% | 10% | 32% | 20% | 12% |
| LEIT-ICT | 27% | 3% | 7% | 24% | 39% |
| LEIT-NMBP | 14% | 18% | 7% | 36% | 25% |
| LEIT-SPACE | 0% | 19% | 6% | 50% | 25% |
| **Total** | **36%** | **15%** | **8%** | **19%** | **22%** |
| Total ex. SC6 | 26% | 14% | 11% | 24% | 25% |

The share of SSH partners from higher education establishments (HES) is highest in SC6 (57%), SC1 (46%) and LEIT ICT (27%). It is lowest in SC4 and LEIT-SPACE. Research organisations fare best in SC2 (22%), SC3 (21%) and SC6 (17%). Private-for-profit entities are best represented in LEIT-SPACE (50%) and SC4 (42%), but their share is significantly lower in SC6 (8%).

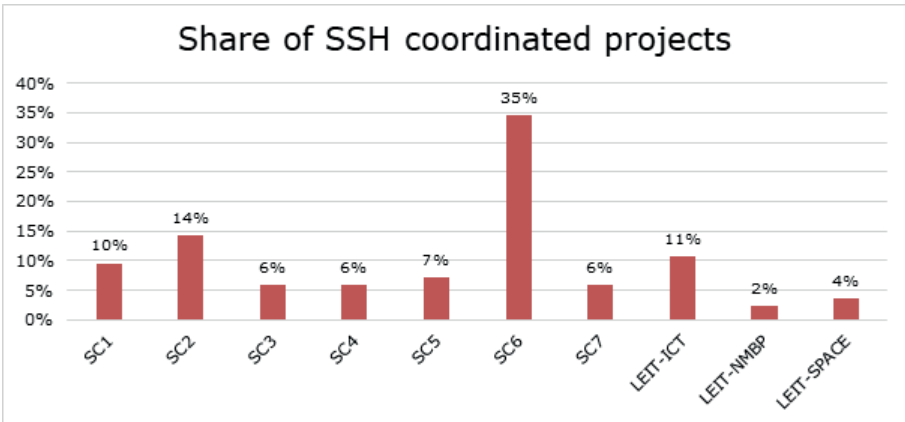
## 3.4 Project coordination

In total, 84 of 266 (32%) projects funded under the SSH-flagged topics in the Societal Challenges and the LEIT parts of Horizon 2020 are coordinated by an SSH partner. The highest number of SSH project coordinators can be found under SC6 with 29 SSH-coordinated projects followed by SC2 with 12 SSH-coordinated projects. These results remain broadly stable in comparison to 2016.

| Horizon 2020 parts | Projects funded under SSH flagged topics | Projects coordinated by SSH partners | Share SSH coordinators |
|---|---|---|---|
| SC1 | 38 | 8 | 21% |
| SC2 | 39 | 12 | 31% |
| SC3 | 34 | 5 | 15% |
| SC4 | 31 | 5 | 16% |
| SC5 | 25 | 6 | 24% |
| SC6 | 40 | 29 | 73% |
| SC7 | 22 | 5 | 23% |
| Total SC | 229 | 70 | 31% |
| LEIT-ICT | 22 | 9 | 41% |
| LEIT-NMBP | 12 | 2 | 17% |
| LEIT-SPACE | 3 | 3 | 0% |
| Total LEIT | 37 | 14 | 38% |
| **TOTAL** | **266** | **84** | **32%** |
| Total ex. SC6 | 226 | 55 | 24% |

If the high number of SSH coordinated projects under SC6 are excluded, on average 24% of the projects are coordinated by an SSH partner. This rather low share of SSH coordinated projects indicates that the potential for SSH integration still remains largely unexploited. This is particularly the case for Societal Challenges 3 and 4 where only a relatively small number projects are coordinated by an SSH partner.

| Country affiliation of SSH project coordinators | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | **DE** | **IT** | **UK** | **AT** | **FR** | **NL** | **BE** | **NO** | **SE** | **PT** | **ES** | **TOTAL** |
| **Coordinators** | 13 | 13 | 13 | 6 | 4 | 4 | 5 | 4 | 4 | 3 | 3 | 72 |
| **Share** | 15% | 15% | 15% | 7% | 5% | 5% | 6% | 5% | 5% | 4% | 4% | 86% |
| **Country** | **FI** | **BG** | **CZ** | **HU** | **CY** | **LT** | **EL** | **EE** | **SE** | **DK** | **PL** | **TOTAL** |
| **Coordinators** | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 |
| **Share** | 2% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 12% |




### 3.4.1 SSH coordinators by country

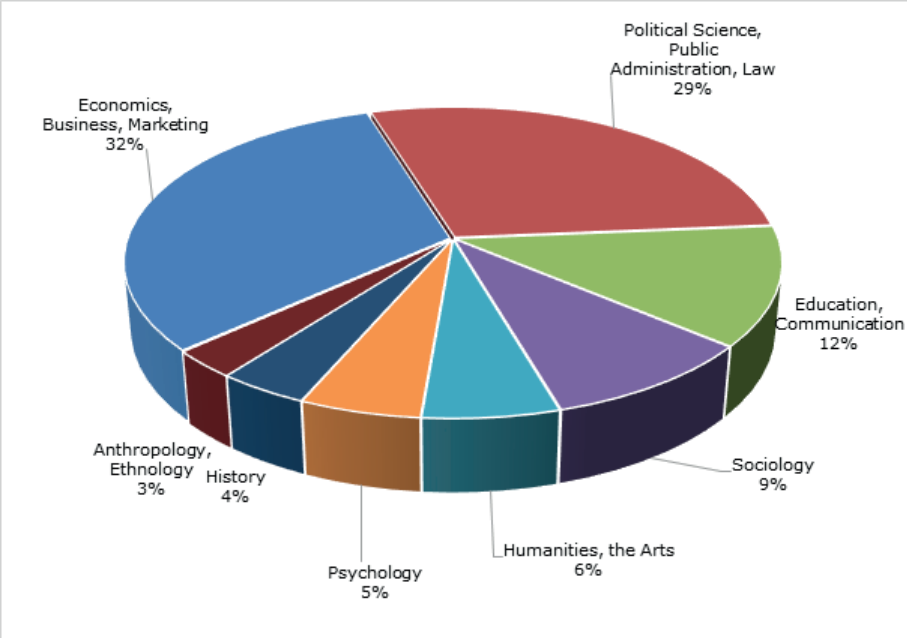
For project consortia led by an SSH partner, the SSH coordinators come predominantly from the following countries: ex-aequo Germany, Italy, the UK (all of them 13 projects – 15%), Austria (6 projects – 7%), as well as France and the Netherlands (both 4 projects – 5%). Together, these six EU-15 countries account for 62% of the SSH coordinators, while the EU-13 are visibly underrepresented and only a fraction of the SSH coordinators come from the associated countries. Efforts should be made in order to reduce the geographical concentration of SSH coordinators in only a few EU-15 countries, and promote the involvement of the EU-13.

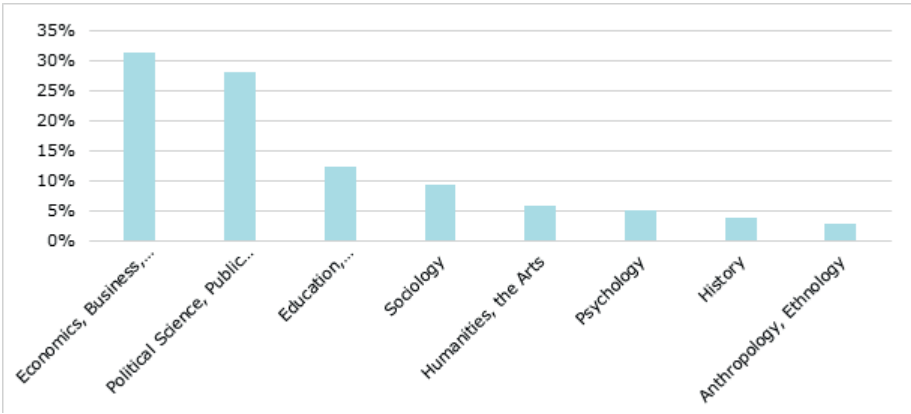
## 3.5 Distribution by discipline

Projects funded under the SSH-flagged topics of the Societal Challenges and LEIT parts of Horizon 2020 include a broad range of SSH disciplines. In particular, experts in the field of economics represent 31% of the total number of experts with an SSH background while experts in the fields of political science and public administration account for 28% of the experts. These two clusters of disciplines are most represented in projects. In addition, some disciplines that are integrated fairly well in projects are education/communication and sociology (respectively 12% and 9% of experts). However, a number of humanities disciplines is still strongly under-represented. This is especially the case for demography and geography (1% of the experts each), anthropology and ethnology (3% of the experts each) and history at 4%. This confirms that the integration of several disciplines remains a serious challenge in H2020, especially concerning humanities and the arts.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts | Share of experts |
| Economics, Business, Marketing | 735 | 31% |
| Political Science, Public Administration, Law | 657 | 28% |
| Education, Communication | 287 | 12% |
| Sociology | 216 | 9% |
| Humanities, the Arts | 135 | 6% |
| Psychology | 120 | 5% |
| History | 90 | 4% |
| Anthropology, Ethnology | 67 | 3% |
| Demography, Geography | 32 | 1% |

Besides, as in previous years and in order not to inflate SSH integration artificially those experts with an SSH background that do not perform research but do only non-research activities such as communication and management are counted separately. In total as much as 12% of experts that have an SSH background perform non-research activities (Project Management and project related communication activities).



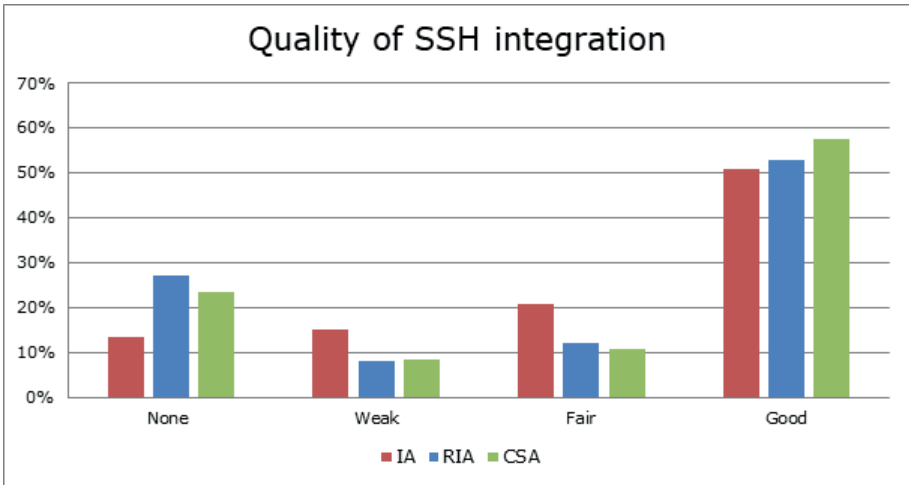



In terms of the distribution of SSH disciplines across the Societal Challenges and LEITs, Economics represent the most prevalent discipline across all Horizon 2020 Programme parts. Political science/public administration performs very well in Societal Challenges 2, 5, and 6. Sociology is very much present in SC2, while Law does very well in SC7. Both Humanities/Arts and Education are by far most integrated in projects related to ICT

## 3.6 Quality of integration

As stated above in the methodology section this report attempts to make the analysis of the quality of SSH integration more precise by presenting two scenarios.

The type of action under which a project is funded is clearly correlated with the quality of SSH integration in that project. Projects with good integration of SSH account for 57% of Coordination and Support Actions (CSA), 53% for Research and Innovation Actions (RIA) and 51% of Innovation Actions (IA) .

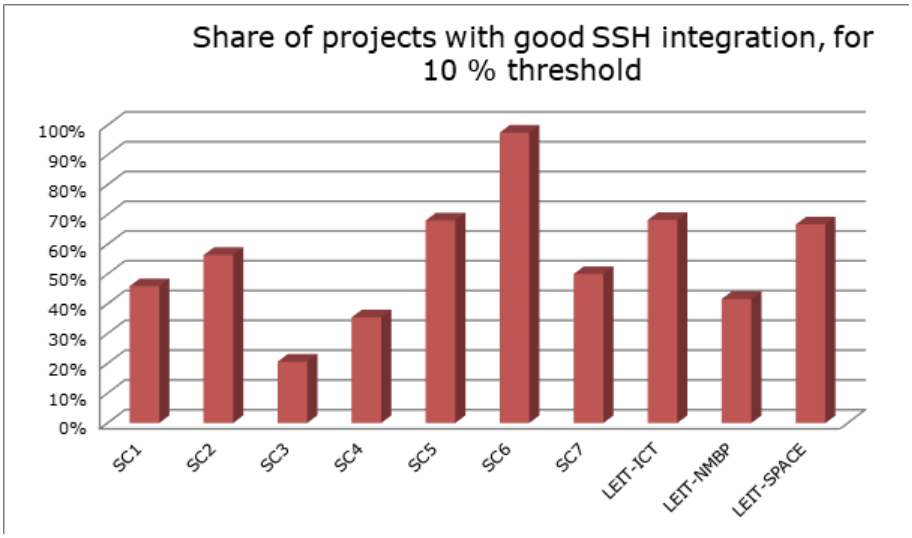


### 3.6.1 With the 10% threshold:

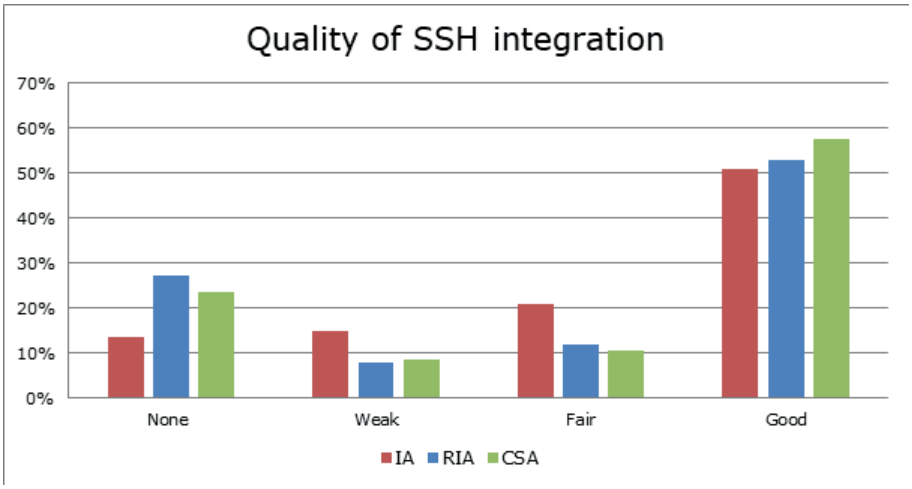
As many as 55% of projects funded under topics flagged for SSH show good integration of SSH in terms of share of partners, budget allocated to them, person-months, and variety of disciplines involved. However, at the other end of the spectrum, 21% of the projects funded under topics flagged for SSH show insufficient contributions from SSH. When excluding Societal Challenge 6, the share of projects that feature poor quality contributions from SSH increases from 21% to 24%, while the share of projects with good SSH integration decreases from 55% to 48%.

| Quality of SSH integration with 10% treshold | | | | |
|---|---|---|---|---|
| **Horizon 2020 parts** | **None** | **Weak** | **Fair** | **Good** |
| SC1 | 27% | 5% | 22% | 46% |
| SC2 | 18% | 10% | 15% | 56% |
| SC3 | 56% | 21% | 3% | 21% |
| SC4 | 29% | 10% | 26% | 35% |
| SC5 | 4% | 20% | 8% | 68% |
| SC6 | 3% | 0% | 0% | 98% |
| SC7 | 23% | 14% | 14% | 50% |
| LEIT-ICT | 5% | 9% | 18% | 68% |
| LEIT-NMBP | 25% | 0% | 33% | 42% |
| LEIT-SPACE | 0% | 0% | 33% | 67% |
| **Total** | **21%** | **10%** | **14%** | **55%** |
| Total ex. SC6 | 24% | 12% | 16% | 48% |

The quality of integration differs considerably across the various Societal Challenges and LEIT parts of the programme. In Societal Challenge 6, as much as 98% of funded projects show a good integration of SSH. Societal Challenge 5 and LEIT ICT as well as LEIT SPACE also perform relatively strongly with the range of 67-68% for the projects showing a good integration of SSH. In contrast, only 21% of the projects funded under Societal Challenges 3 show a high level of integration in terms of SSH.




The type of action under which a project is funded is clearly correlated with the quality of SSH integration in that project. Projects with good integration of SSH account for 57% of Coordination and Support Actions (CSA), 53% for Research and Innovation Actions (RIA) and 51% of Innovation Actions (IA)[6].



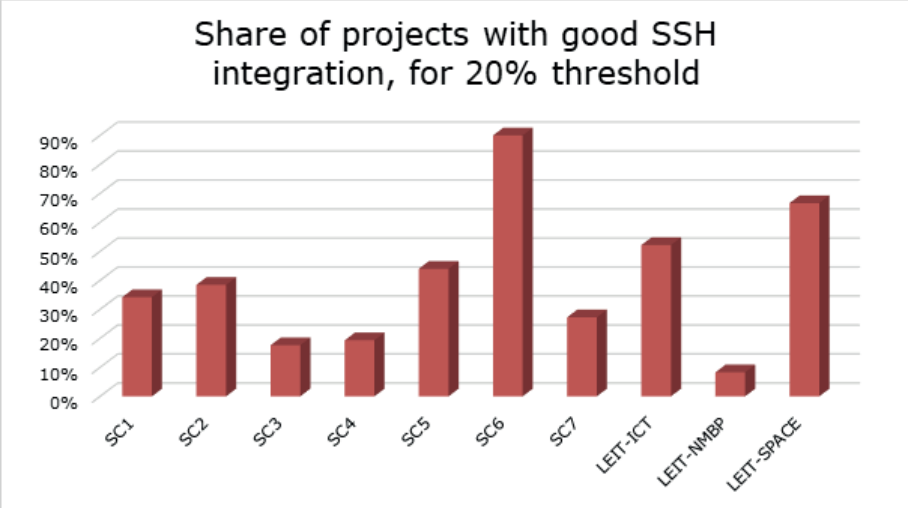

### 3.6.2 With the 20% threshold:

As much as 40% of projects funded under topics flagged for SSH show good integration of SSH in terms of share of partners, budget allocated to them, person-months, and variety of disciplines involved. However, at the other end of the spectrum, 27% of the projects funded under topics flagged for SSH feature poor quality level of contributions from SSH. When excluding Societal Challenge 6, the share of projects that feature insufficient quality contributions from SSH increases from 27% to 32%, while the share of projects with good SSH integration decreases from 40% to 32%.

6 This is the distribution by the type of action using the 10% quality threshold.

| Quality of SSH integration with 20% treshold | | | | |
|---|---|---|---|---|
| Horizon 2020 parts | None | Weak | Fair | Good |
| SC1 | 29% | 21% | 16% | 34% |
| SC2 | 28% | 21% | 13% | 38% |
| SC3 | 71% | 9% | 3% | 18% |
| SC4 | 35% | 23% | 23% | 19% |
| SC5 | 4% | 40% | 12% | 44% |
| SC6 | 3% | 3% | 5% | 90% |
| SC7 | 36% | 23% | 14% | 27% |
| LEIT-ICT | 9% | 13% | 26% | 52% |
| LEIT-NMBP | 33% | 33% | 25% | 8% |
| LEIT-SPACE | 0% | 0% | 33% | 67% |
| **Total** | **27%** | **18%** | **14%** | **40%** |
| Total ex. SC6 | 32% | 21% | 15% | 32% |

The quality of integration differs considerably across the various Societal Challenges and LEIT parts of the programme. In Societal Challenge 6 as much as 90% of funded projects show a good integration of SSH. LEIT SPACE and LEIT ICT as well as Societal Challenge 5 also perform well with 67%, 52% and 44% of the projects showing a good integration of SSH. In contrast, only 18% and 19% of the projects funded under Societal Challenges 3 and 4 show a good integration of SSH, while LEIT-NMBP features a low 8% rate in this regard.



# 4. Detailed Assessment: Integration of SSH by Work Programme Part

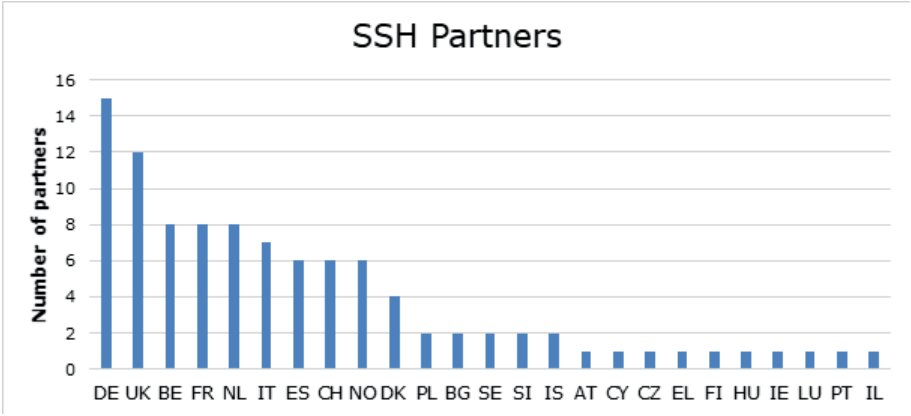
## 4.1 Societal Challenge 1 'Health, Demographic Change and Well-being'

In 2017, SC1 funded a total of 15 topics under 2 calls for proposals: Personalised Medicine (PM) and Health Coordination Activities (HCO). The 2016-17 Work Programme set the budget for these 15 topics at €332 million.

Overall 7 out of the 15 topics were flagged for SSH:
- 6 topics under the call PM
- 1 topic under HCO

These 7 topics funded 38 projects for a budget of €195 million, out of which €38 million (i.e. 20%) went to SSH partners.
In terms of types of action, the 38 funded projects include:
- 37 Research and Innovation Actions
- 1 Coordination and Support Actions

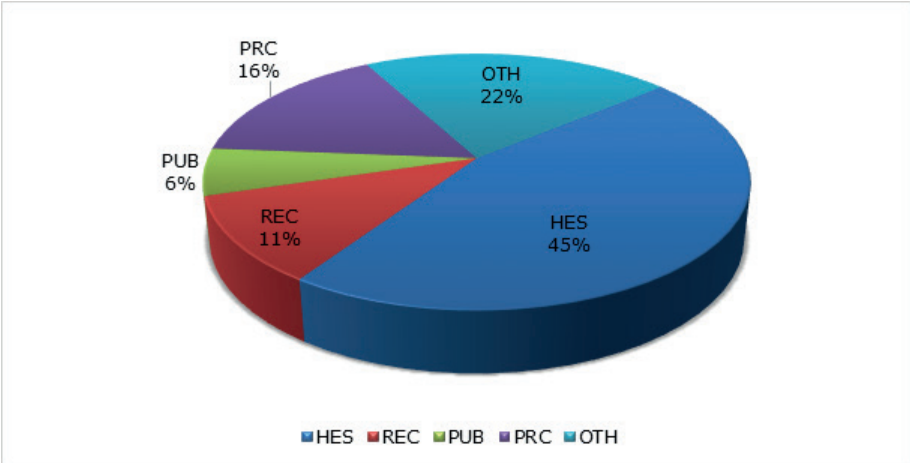
SSH partners accounted for 26% of project partners (109 out of 416) in the 38 projects. The five most represented EU countries were Germany, the United Kingdom, Belgium, France and the Netherlands. For associated countries both Switzerland and Norway also featured very good results.




Project coordination was done by an SSH partner in 8 out of the 38 projects. The SSH project coordinators are affiliated with the 8 countries listed below.

| Country of affiliation of SSH partners | AT | BE | BG | CZ | IT | NO | SE | UK | |
|---|---|---|---|---|---|---|---|---|---|
| Number of projects coordinated | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |

In terms of type of activity, as many as 45% of the SSH partners are higher education institutions (HES).




In terms of SSH expertise type across all 38 funded projects, three clusters of disciplines are prevalent: 26% of projects include partners with expertise in communication, 20% of projects feature expertise in psychology, while 19% of projects include partners with expertise in economic sciences.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts |
| Non-Research activities (Business, Communication, Project management) | 82 | 26% |
| Psychology | 64 | 20% |
| Economics | 59 | 19% |
| Sociology | 22 | 7% |
| Communication | 20 | 6% |
| Political science/Public administration | 18 | 6% |
| Education | 14 | 4% |
| Business/marketing | 12 | 4% |
| Law | 8 | 3% |
| Humanities/Arts | 8 | 3% |
| Anthropology/ ethnology | 4 | 1% |
| History | 1 | 0% |
| Human geography | 1 | 0% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 46% of projects funded under the SC1 topics flagged for SSH show good integration of SSH and of their contributions while 32% of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 10 | 27% |
| Weak | 2 | 5% |
| Fair | 8 | 22% |
| Good | 17 | 46% |
| Total | 37 | 100% |

- With the 20% threshold: 34% of projects funded under the SC1 topics flagged for SSH show good integration of SSH and of their contributions while 50% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 11 | 29% |
| Weak | 8 | 21% |
| Fair | 6 | 16% |
| Good | 13 | 34% |
| Total | 38 | 100% |

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**SC1-PM-07-2017: Promoting mental health and well-being in the young** | Specific Challenge: Childhood and adolescence are crucial periods for laying the foundations for healthy development and mental wellbeing. There is a need for more robust evidence on resilience factors and on effective interventions promoting mental wellbeing. Developing these in the young offers the possibility of a positive influence on child development in critical/sensitive periods (childhood, adolescence, transition to young adulthood), thanks to early neuroplasticity.<br>Scope: Proposals should develop population-oriented primary prevention interventions to promote mental wellbeing of young people and assess them for their effectiveness. The interventions should build on but may go beyond existing state-of-the art knowledge on biological, psychological and social determinants of mental wellbeing such as societal, cultural, work life, lifestyle, epidemiological, economic and environmental perspectives. The proposals should aim at increasing resilience and mitigating the impact of biological, psychosocial and environmental risk factors. The target group should include young up to 25 years (or a subgroup there of). |
| **PROJECT**<br><br>**ECoWeB - Assessing and Enhancing Emotional Competence for Well-Being in the Young: A principled, evidence-based, mobile-health approach to prevent mental disorders and promote mental well-being** | The aim is to improve mental health promotion by developing, evaluating, and disseminating a comprehensive mobile app to assess deficits in three major components of the Emotional Competence (EC) Process (production, regulation, knowledge) and to selectively augment pertinent EC abilities in adolescents and young adults. There is a need for more robust evidence on resilience factors, for more effective interventions, and for approaches that can be scalable and accessible at a population level. It is hypothesized that the targeted interventions, based on state-of-the-art assessment, will efficiently increase resilience toward adversity, promote mental well-being, and act as primary prevention for mental disorders. The EC intervention will be tested in cohort multiple randomized trials with young people from many European countries against a usual care control and an established, non-personalized socio-emotional learning digital intervention. Building directly from a fundamental understanding of emotion in combination with a personalized approach and leading edge digital technology is a novel and innovative approach, with potential to deliver a breakthrough in effective prevention of mental disorder.<br>More on http://www.ecowebproject.eu/ |

## 4.2 Societal Challenge 2 'Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy'

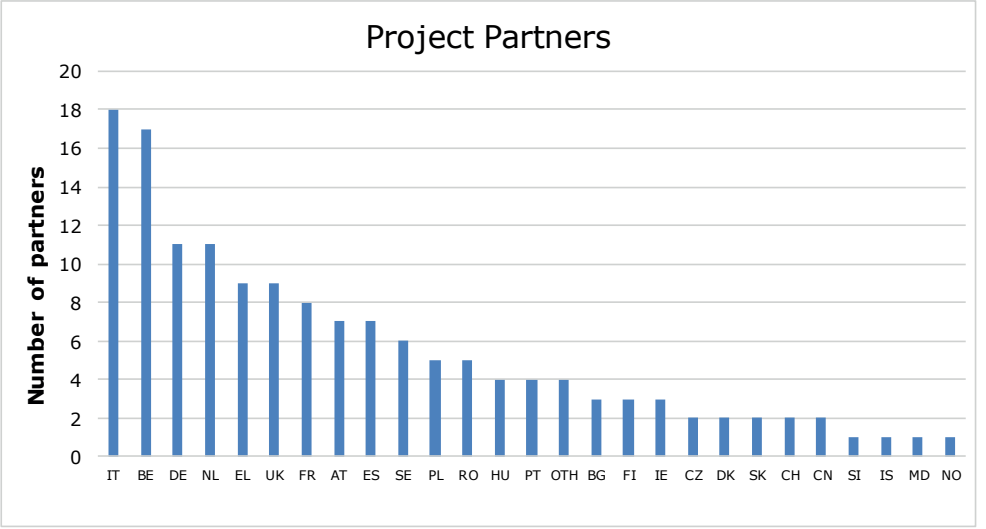
In 2017, SC2 funded a total of 50 topics under 4 calls for proposals: Call for Sustainable Food Security, Call for Blue Growth, Call for Bio-based Products and Call for Rural Renaissance - Fostering innovation and business opportunities.
The 2016-17 Work Programme set the budget for these 50 topics at €381 million.
Overall 25 out of the 50 topics were flagged for SSH:

- 10 topics under the call for Sustainable Food Security
- 4 topics under the call for Blue Growth
- 2 topics under the call for Bio-based Products
- 9 topics under the call for Rural Renaissance

These 25 topics funded 39 projects for a budget of €194 million, out of which €42 million (i.e. 22%) went to SSH partners.
In terms of types of action, the 39 funded projects include:

- 17 Research and Innovation Actions
- 8 Innovation Actions
- 14 Coordination and Support Actions

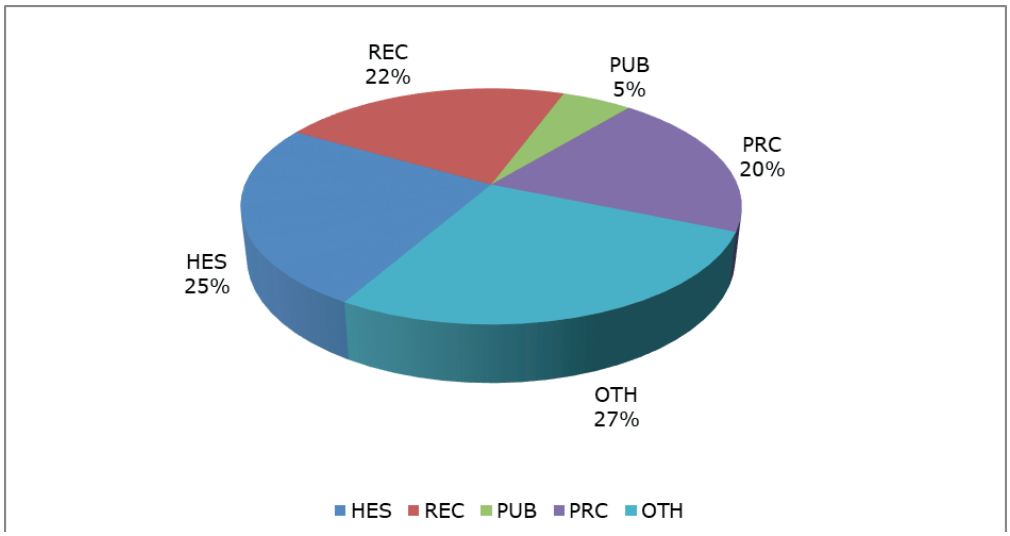
SSH partners accounted for 22% of project partners (160 out of 737) in the 39 projects. The six most represented EU countries were Italy, Belgium, Germany, the Netherlands and ex-aequo Greece and the United Kingdom. Interestingly enough China was also featured in 2 projects.



Project coordination was done by an SSH partner in 12 out of the 39 projects. The SSH project coordinators are affiliated with the 12 countries listed below.

| Country of affiliation of SSH partners | DE | FI | AT | IT | ES | NL | FR | SE | UK | |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of projects coordinated | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 |

In terms of type of activity, as many as 25% of the SSH partners are higher education institutions (HES) and 22% research organisations (REC).




In terms of SSH expertise type across all 39 funded projects, two clusters of disciplines are prevalent: 26% of projects include partners with expertise in economic sciences while 22% of projects include partners with expertise in project management, business and communication.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Economics | 120 | 26% |
| Non - Research activities (Business, Communication, Project management) | 101 | 22% |
| Business/Marketing | 58 | 13% |
| Political Science/Public Administration | 50 | 11% |
| Communication | 39 | 9% |
| Sociology | 37 | 8% |
| Law | 20 | 4% |

| | | |
|---|---|---|
| Anthropology/ Ethnology | 10 | 2% |
| Psychology | 7 | 2% |
| Human geography | 4 | 1% |
| Humanities/Arts | 6 | 1% |
| Education | 2 | 0% |
| History | 1 | 0% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 56% of projects funded under the SC2 topics flagged for SSH show good integration of SSH and of their contributions while 28% of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 7 | 18% |
| Weak | 4 | 10% |
| Fair | 6 | 15% |
| Good | 22 | 56% |
| Total | 39 | 100% |

- With the 20% threshold: 38% of projects funded under the SC2 topics flagged for SSH show good integration of SSH and of their contributions while 49% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 11 | 28% |
| Weak | 8 | 21% |
| Fair | 5 | 13% |
| Good | 15 | 38% |
| Total | 39 | 100% |

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**RUR-15-2017: The benefits of working with others – fostering social capital in the farming sector.** | Specific Challenge: The environmental and economic sustainability of the farming sector depends to a great extent on farmers' and land managers' capacity to develop activities and participate in networks with fellow farmers, groups and other entities or individuals. Despite the benefits of such approaches, farmers' involvement in them is low in a number of European countries, for various reasons.<br>To address this, we need to investigate and find ways of overcoming the constraints and disincentives that impede the development of such approaches in different areas of collective action (productivity, information sharing, and sustainability).<br>Scope: Proposals will primarily cover EU Member States where the level of organisation of farmers and land managers is considered low. Activities will address constraints on the development of cooperatives/ networking activities in particular areas (economic activity, environmental sustainability etc.) and draw up solutions based on case studies, identified best practices, participatory workshops, etc. |
| **PROJECT**<br><br>**Nunataryuk - Permafrost thaw and the changing arctic coast: science for socio-economic adaptation.** | NUNATARYUK will determine the impacts of thawing coastal and subsea permafrost on the global climate, and will develop targeted and co-designed adaptation and mitigation strategies for the Arctic coastal population. NUNATARYUK brings together natural science and socio-economics to:<br>• develop quantitative understanding of the fluxes and fates of organic matter released from thawing coastal and subsea permafrost;<br>• assess what risks are posed by thawing coastal permafrost, to infrastructure, indigenous and local communities and people's health, and from pollution;<br>• use this understanding to estimate the long-term impacts of permafrost thaw on global climate and the economy.<br><br>NUNATARYUK will be guided by a Stakeholders' Forum of representatives from Arctic coastal communities and indigenous societies, creating a legacy of collaborative community involvement and a mechanism for developing and applying innovative evidence-based interventions to enable the sustainable development of the Arctic.<br>More on https://nunataryuk.org/ |

## 4.3 Societal Challenge 3 'Secure, clean and efficient energy'

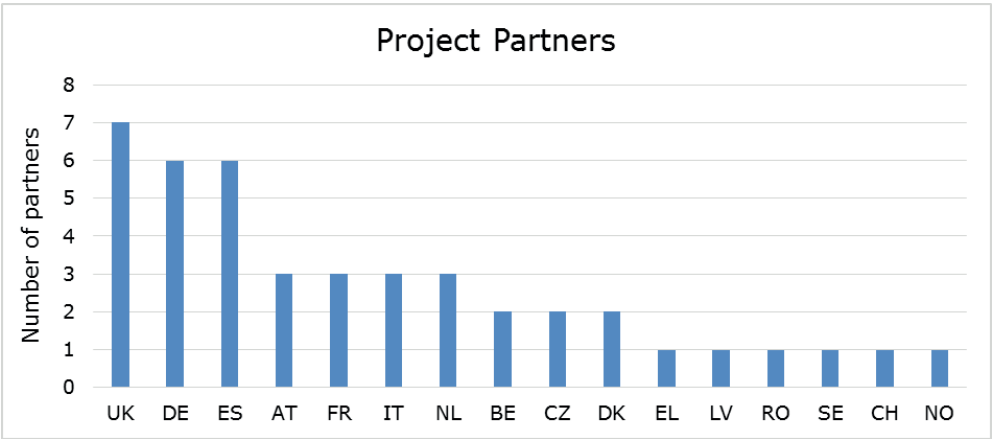
In 2017, SC3 funded a total of 42 topics under two calls for proposals: Energy Efficiency and Competitive Low-Carbon Energy.
The 2016-17 Work Programme set the budget for these 42 topics at €527 million.

Overall 9 out of the 42 topics were flagged for SSH:
- 9 topics under the call Competitive Low-Carbon Energy.
- None under the call Energy Efficiency.

These 9 topics funded 34 projects for an overall budget of €178 million, out of which only €14 million (i.e. a mere 8%) went to SSH partners.

In terms of types of action, the 34 funded projects included:
- 22 Research and Innovation Actions
- 6 Innovation Actions
- 6 Coordination and Support Actions

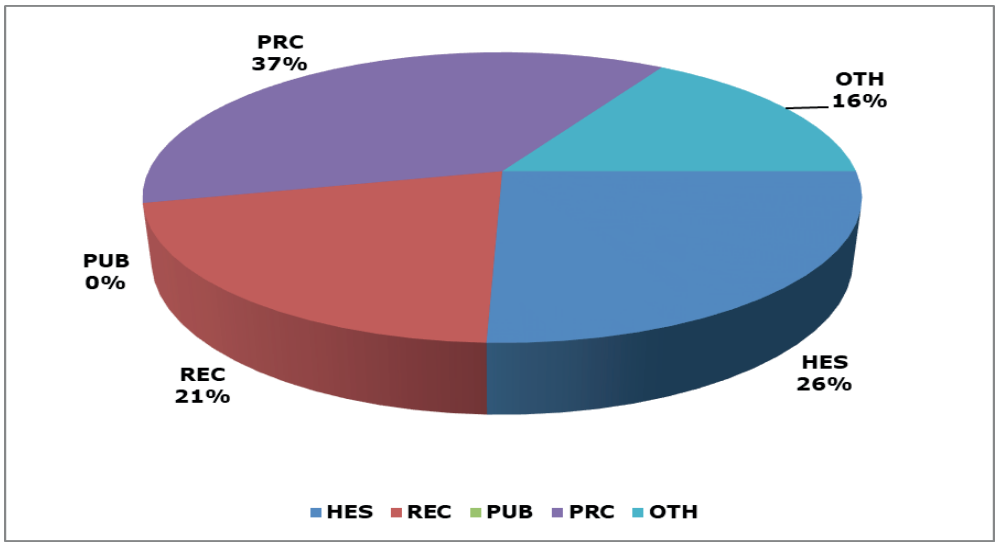
In general terms SSH partners accounted for as little as 12% of project partners (48 out of 405) in the 34 projects.
The three most represented EU countries were the United Kingdom (7), as well as Germany and Spain (6 respectively). Two associated countries (Norway and Switzerland) also featured with one entity for each of them. The presence of the EU-13 partners was indeed very limited in this case.




Project coordination was done by an SSH partner in only 5 out of the 34 projects. The SSH project coordinators are affiliated with the 4 countries listed below.

| Country of affiliation of SSH partners | DE | NL | PT | NO | |
|---|---|---|---|---|---|
| Number of projects coordinated | 2 | 1 | 1 | 1 | 5 |

In terms of type of activity, as many as 37% of partners were from the private sector (PRC), while 26% of the SSH partners were higher education institutions (HES) and 21% research organisations (REC).




In terms of SSH expertise type across all 34 funded projects, mainly one cluster of disciplines is prevalent: as much as 42% of projects include partners with expertise in project management, business and communication.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Non - Research activities (Business, Communication, Project management) | 58 | 42% |
| Economics | 21 | 15% |
| Political science/public policy | 15 | 11% |
| Business/marketing | 13 | 9% |
| Psychology | 10 | 7% |
| Communication | 8 | 6% |
| Law | 7 | 5% |
| Sociology | 3 | 2% |
| Education | 1 | 1% |
| Humanities/Arts | 1 | 1% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 21% of projects funded under the SC3 topics flagged for SSH show good integration of SSH and of their contributions while 77% of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 19 | 56% |
| Weak | 7 | 21% |
| Fair | 1 | 3% |
| Good | 7 | 21% |
| Total | 34 | 100% |

- With the 20% threshold: 18% of projects funded under the SC3 topics flagged for SSH show good integration of SSH and of their contributions while 80% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 24 | 71% |
| Weak | 3 | 9% |
| Fair | 1 | 3% |
| Good | 6 | 18% |
| Total | 34 | 100% |

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**LCE-32-2016: European Platform for energy-related Social Sciences and Humanities research** | Specific Challenge: The transition to a low-carbon energy system changes the fundamental nature of the interrelations between all actors in our societies. Not only is there a need to find novel approaches to the development and application of technological or social processes as they relate to the energy transition, but also to better understand the changes they bring to people's behaviour, pervasive values, cultures of practice and modes of communication. Since researchers in the Social Sciences and Humanities (SSH) have a particular expertise in analysing and understanding deep change and in designing innovation processes, including social innovations, they must play a stronger role in addressing energy-related challenges. Accordingly, SSH aspects must be better integrated into all stages of the research process.<br>Creating a platform for better interaction between SSH and other energy research disciplines would fill an existing gap and contribute to better responding to on-going changes and arising challenges in the energy field.<br><br>Scope: Within the scope of this call a platform for SSH research communities in the energy field will be set up at European level, aiming to integrate and build upon the experience of already existing networks and initiatives. The platform will seek to structure and enhance the energy-related dialogue at EU level among the different SSH stakeholders, as well as with other energy-research communities, creating greater inter-disciplinarity and fostering knowledge and information sharing among various disciplines. It will promote the generation of novel, evidence-based research designed to inform and influence relevant policy processes, particularly with respect to the role of SSH aspects (including gender) in hindering or accelerating the transition to a low-carbon energy system in Europe. The platform will also be a source of specific expertise and advice to EU policymakers, such as on how best to embed SSH aspects in Horizon 2020 energy calls, as well as how to address the SSH dimension in EU energy initiatives more broadly. |

| | |
|---|---|
| **PROJECT**<br><br>**SMARTEES – Social innovation Modelling Approaches to Realizing Transition to Energy Efficiency and Sustainability** | Understanding citizen acceptance of the Energy Union, responsiveness to socioeconomic incentives for increased ownership, and 'prosumerism' requires a multidisciplinary understanding of social systems and inclusiveness and robustness of policymaking depends on having empirically and theoretically grounded methodological tools to assess and adapt policy strategies.<br><br>SMARTEES addresses this need by an iterative process:<br>(1) integration of theories and methodologies of social innovation and agent-based socio-economic simulation in a comprehensive, flexible framework;<br>(2) unprecedented data collection and integration in five trans-European case clusters in the domains of consumer-driven regenerative energy production, energy efficiency in buildings, low-carbon regional transport and consumer empowerment;<br>(3) dynamic, multilevel agent-based models of successful innovation transfer; which ultimately lead to<br>(4) a policy sandbox which allows a realistic prospective analysis of existing and future policy and market incentive scenarios.<br><br>By doing this, SMARTEES contributes to robust and adaptive future policymaking, understanding of barriers and sources of resistance, the effects of the Energy Union on vulnerable consumer groups, genders and cultures. Furthermore, SMARTEES substantially drives advancement of social innovation and social simulation research by dynamic modelling of supply chains, companies, social groups, cities and neighbourhoods.<br>More on http://local-social-innovation.eu/ |

## 4.4 Societal Challenge 4 'Smart, green and integrated transport'

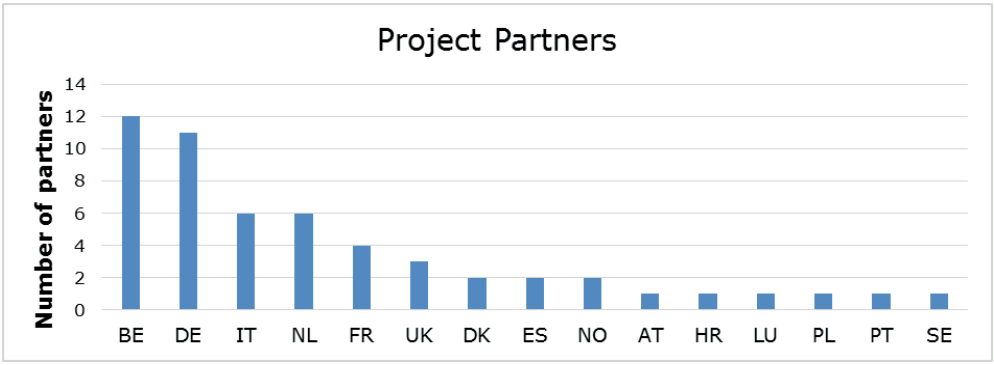
In 2017, SC4 funded a total of 32 topics under 2 calls for proposals: Mobility for Growth and Automated Road Transport.
The 2016-17 Work Programme set the budget for these 32 topics at €410 million.
Overall 13 out of the 32 topics were flagged for SSH:

- 11 topics under the call Mobility for Growth.
- 2 topics under the call Automated Road Transport.

These 13 topics funded 31 projects for an overall budget of €135 million, out of which only €14 million (i.e. 10%) went to SSH partners. It is worth noting that only 23 projects out of the 31 had an SSH partner.
In terms of types of action, the 31 funded projects included:

- 20 Research and Innovation Actions
- 7 Innovation Actions
- 4 Coordination and Support Actions

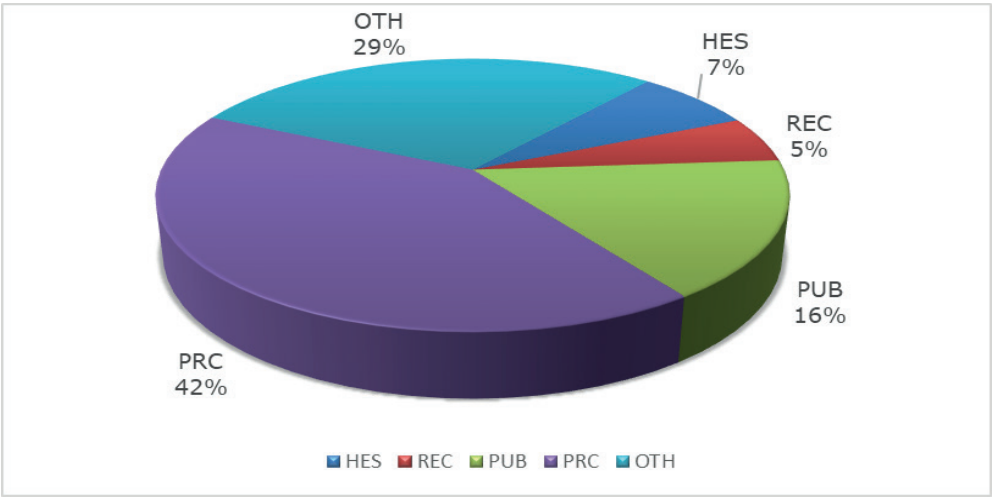
In general terms, SSH partners accounted for as little as 15% of project partners (60 out of 409) in the 31 projects.
The five most represented EU countries were Belgium (12), Germany (11), Italy and the Netherlands (6 each), as well as France (4). One associated country (Norway) also featured with two entities. The presence of the EU-13 partners was very limited (Croatia and Poland).




Project coordination was done by an SSH partner in only 5 out of the 31 projects. The SSH project coordinators are affiliated with the 4 countries listed below.

| Country of affiliation of SSH partners | IT | AT | BE | UK | |
|---|---|---|---|---|---|
| Number of projects coordinated | 2 | 1 | 1 | 1 | 5 |

In terms of type of activity, as many as 42% of partners were from the private sector (PRC), while 29% of the SSH partners had expertise in communication, business and project management (OTH).




In terms of SSH expertise type across all 23 funded projects, mainly two clusters of disciplines are prevalent: as much as 23% of projects include partners with expertise in project management, business and communication and 20% for economics.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Business/Marketing | 34 | 23% |
| Economics | 30 | 20% |
| Non-Research activities (Business, Communication, Project management) | 19 | 13% |
| Political science/Public administration | 17 | 12% |
| Sociology | 14 | 10% |
| Law | 10 | 7% |
| Communication | 7 | 5% |
| Human geography | 5 | 3% |
| Humanities/Arts | 3 | 2% |
| Psychology | 3 | 2% |
| Education | 2 | 1% |
| History | 2 | 1% |
| Anthropology/ Ethnology | 1 | 1% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 35% of projects funded under the SC4 topics flagged for SSH show good integration of SSH and of their contributions while 39% of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 9 | 29% |
| Weak | 3 | 10% |
| Fair | 8 | 26% |
| Good | 11 | 35% |
| Total | 31 | 100% |

- With the 20% threshold: 19% of projects funded under the SC4 topics flagged for SSH show good integration of SSH and of their contributions while 58% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 11 | 35% |
| Weak | 7 | 23% |
| Fair | 7 | 23% |
| Good | 6 | 19% |
| Total | 31 | 100% |

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**MG-3.5-2016: Behavioural aspects for safer transport.** | Specific Challenge: The challenge is to study those key factors that influence safe transport user behaviour (of drivers, riders, pilots, cyclists, pedestrians, etc. and of their interaction with their associated safety-related systems and services such as on-board technologies, mobile devices and infrastructure), both individually and collectively, taking into account demographic factors (gender, age, socio-cultural aspects, etc.) and societal framework conditions. Using the knowledge gained on the interacting parameters that define user behaviour and their combined effects, appropriate measures and systems should be developed and assessed to ensure safe user performance, to pro-actively anticipate user response and reduce the number of errors and potential accidents in the transport system.<br><br>Scope: Proposals should address (i) distraction and health related factors, (ii) social and demographic factors, (iii) risk appraisal, and (iv) measures to modify transport user behaviour. |
| **PROJECT**<br><br>**HiReach - High reach innovative mobility solutions to cope with transport poverty.** | HiReach aims to eliminate transport poverty by triggering new mobility solutions sustained by products scaling up on mixed needs, backed by mobile information technologies and social innovations, using open tools, technology transfer and start up development techniques to find and exploit new business ideas that reach low accessibility social groups and areas.<br>HiReach will explore viable business models for small scale, modular and easily replicable mobility services (e.g. community transport services, ridesharing, minibus pooling, etc.) that can be provided at affordable prices and/or with minimum subsidies. HiReach fosters social innovation processes through an in depth (micro) analysis of capabilities and attitudes of different social groups and their direct involvement as co-users and co-owners of the proposed solutions. Their involvement will be put in relation with the HiReach mechanism for exploring, generating and testing new solutions, which is based on the creative work of start-ups and innovative entrepreneurs.<br>The legislative and regulative adaptation of newly developed collaborative economy solutions will be also assessed.<br>More on http://www.hireach-project.eu/ |

## 4.5 Societal Challenge 5 'Climate action, environment, resource efficiency and raw materials'

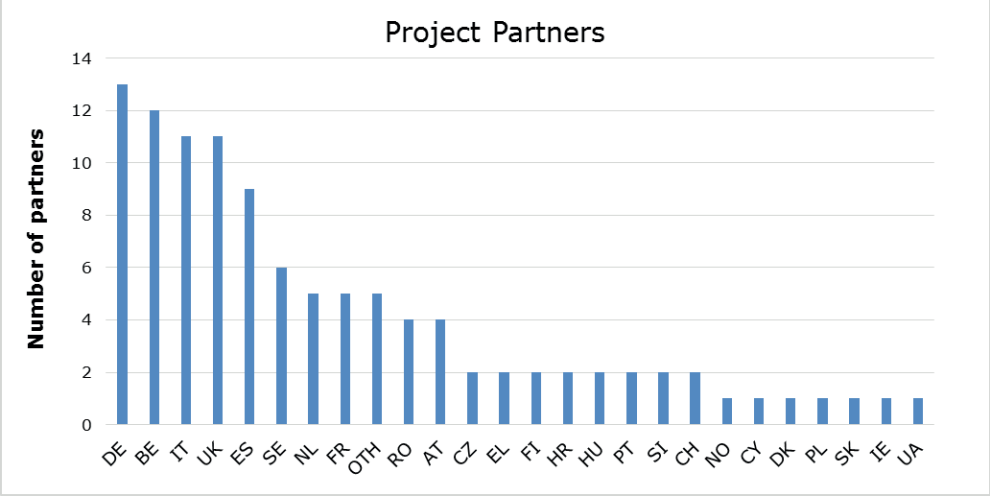
In 2017, SC5 funded a total of 22 topics under 2 calls for proposals: Greening the Economy and Water (CIRC).
The 2016-17 Work Programme set the budget for these 22 topics at €223.6 million.
Overall 11 out of the 22 topics were flagged for SSH:

- 10 topics under the call Greening the Economy.
- 1 topic under the call Water (CIRC).

These 11 topics funded 25 projects for an overall budget of €171 million, out of which €35 million (i.e. 21%) went to SSH partners.
In terms of types of action, the 25 funded projects included:

- 4 Research and Innovation Actions
- 15 Innovation Actions
- 6 Coordination and Support Actions

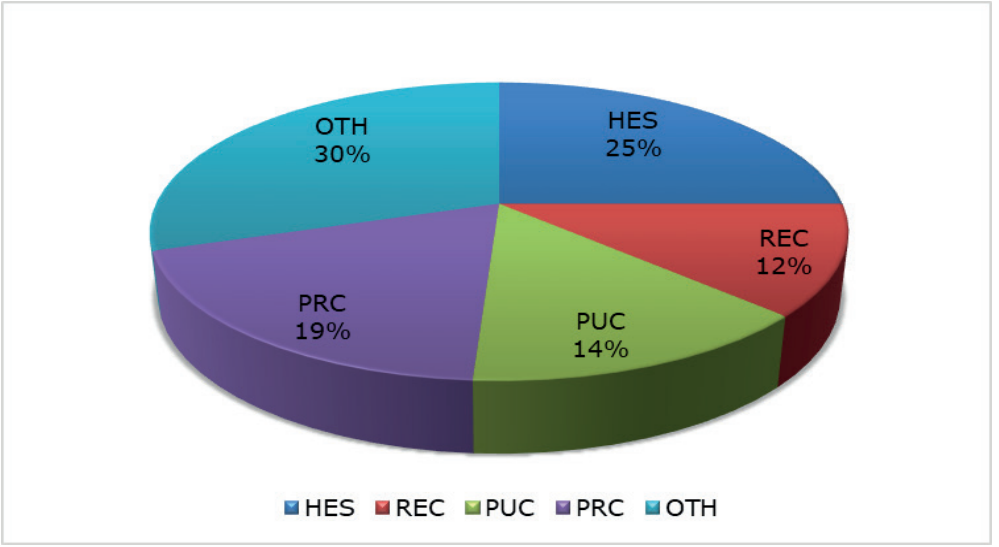
In general terms, SSH partners accounted for 22% of project partners (114 out of 522) in the 25 projects.
The five most represented EU countries were Germany (13), Belgium (12), Italy (11) and the UK (11) as well as Spain (9). It is worth noting that for third countries e.g. Ukraine also featured in this area with one entity.




Project coordination was done by an SSH partner in 6 out of the 25 projects. The SSH project coordinators are affiliated with the 5 countries listed below.

| Country of affiliation of SSH partners | IT | DE | ES | NL | FR | |
|---|---|---|---|---|---|---|
| Number of projects coordinated | 2 | 1 | 1 | 1 | 1 | 6 |

In terms of type of activity, as many as 30% of organisation belonged to the other sector (project management, communication) and 25% of partners were higher education institutions.




In terms of SSH expertise type across all 25 funded projects, mainly two clusters of disciplines are prevalent: as much as 27% of projects include partners with expertise in economics and 21% in business and marketing.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Economics | 83 | 27% |
| Business/Marketing | 63 | 21% |
| Political science/Public affairs | 37 | 12% |
| Non - Research activities (Business, Communication, Project management) | 34 | 11% |
| Sociology | 21 | 7% |
| Communication | 21 | 7% |
| Humanities/Arts | 15 | 5% |
| Law | 12 | 4% |
| History | 6 | 2% |
| Anthropology/ Ethnology | 5 | 2% |
| Education | 4 | 1% |
| Human geography | 4 | 1% |
| Psychology | 2 | 1% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 68% of projects funded under the SC5 topics flagged for SSH show good integration of SSH and of their contributions while 24% of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 1 | 4% |
| Weak | 5 | 20% |
| Fair | 2 | 8% |
| Good | 17 | 68% |
| Total | 25 | 100% |

- With the 20% threshold: 44% of projects funded under the SC5 topics flagged for SSH show good integration of SSH and of their contributions while 44% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 1 | 4% |
| Weak | 10 | 40% |
| Fair | 3 | 12% |
| Good | 11 | 44% |
| Total | 25 | 100% |

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**SC5-06-2016-2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond.** | Specific Challenge: It is imperative to build a comprehensive evidence-based framework for research, business, investment and policy decision making which is able to assess the socio-economic implications of and incentives for medium- to long-term decarbonisation pathways, the challenges of planning medium- to long-term technological transitions, the adequacy of future global commitments for achieving long-term climate goals as well as the risks and costs of climate change. This action should be built around the co-design of pathways and scenarios with economic and societal actors and address relevant cross-sectorial perspectives of the decarbonisation of the European economy.<br><br>Scope: Trans-disciplinary approaches, including social sciences, are considered necessary to address this specific challenge. Proposals should address one of the following:<br>a) Managing technology transition: Proposals should explore and address the challenges of planning technological transition ahead of time and prioritising within and between different sectors in Europe so as to support stringent mitigation policies, taking into account among other aspects the inertia in innovation systems and lock-in effects. In addition, proposals should address the socio-economic and environmental implications of deep decarbonisation, including the consequences for supply chains and production of goods and the impacts on various social groups (including gender aspects). Proposals should also identify necessary changes in investment patterns, financial mechanisms and regulatory incentives in order to achieve sustainable growth, job creation and ambitious low-carbon goals. Proposals should provide a research and innovation framework which allows the co-design of pathways and scenarios with key economic and societal actors and addresses relevant cross-sectorial perspectives of the decarbonisation of the European economy.<br>b) Assessment of the global mitigation efforts in the perspective of the long-term climate goal: Proposals should analyse the adequacy of the outcomes of COP21 and the pledges of major emitting countries in view of the long-term climate goal. Proposals should also address the available pathways and necessary level of actions that will be needed to be on track with the objective of limiting temperature increase to below 2°C. Furthermore, proposals should analyse the implications and opportunities emerging from the UNFCCC negotiations on European decarbonisation and broader objectives, particularly in view of industrial competitiveness, green growth, international trade, energy security, public finance and cross border capital flows. |

| | |
|---|---|
| | c) The risks and costs of climate change for Europe: Defining and assessing complex impact chains under different climate change scenarios including macro-economic consequences, as well as non-market damage constitute a prerequisite of policy-making. |
| **PROJECT**<br><br>**RURITAGE Rural regeneration through systemic heritage-led strategies.** | RURITAGE establishes a new heritage-led rural regeneration paradigm able to turn rural areas in sustainable development demonstration laboratories, through the enhancement of their unique Cultural and Natural Heritage (CNH) potential. RURITAGE has identified 6 Systemic Innovation Areas (pilgrimages; sustainable local food production; migration; art and festivals; resilience; and integrated landscape management) which, integrated with cross-cutting themes, showcase heritage potential as a powerful engine for economic, social and environmental development of rural areas.<br>Local Rural Heritage Hubs, gathering stakeholders and civil society, will be settled in Rs to work as living labs where heritage-led rural regeneration strategies will be co-created and implemented, while in RMs they will reinforce the ownership of CNH.<br>More on https://www.ruritage.eu/ |

## 4.6 Societal Challenge 6 'Europe in a changing world – Inclusive, innovative and reflective Societies'

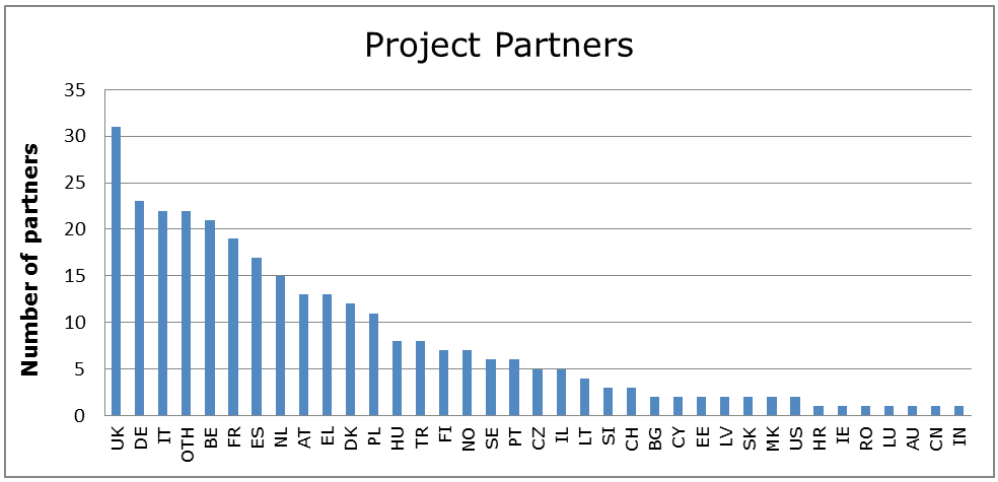
In 2017, SC6 funded a total of 29 topics under four calls for proposals: Call for Understanding Europe – Promoting the European Public and Cultural Space, Call for Co-creation for growth and inclusion, Call for Engaging Together Globally and Call for Reversing Inequalities and Promoting Fairness.
The 2016-17 Work Programme set the budget for these 29 topics at €126 million.
Overall 27 out of the 29 topics were flagged for SSH:

- 4 topics under the call for co-creation for growth and inclusion
- 11 topics under the call for understanding Europe
- 8 topics under the call for engaging together globally
- 4 topics under the call for reversing inequalities and promoting fairness

These 27 topics funded 40 projects for a budget of €114 million, out of which €85 million (i.e. 75%) went to SSH partners.
In terms of types of action, the 40 funded projects include:

- 31 Research and Innovation Actions
- 2 Innovation Actions
- 7 Coordination and Support Actions

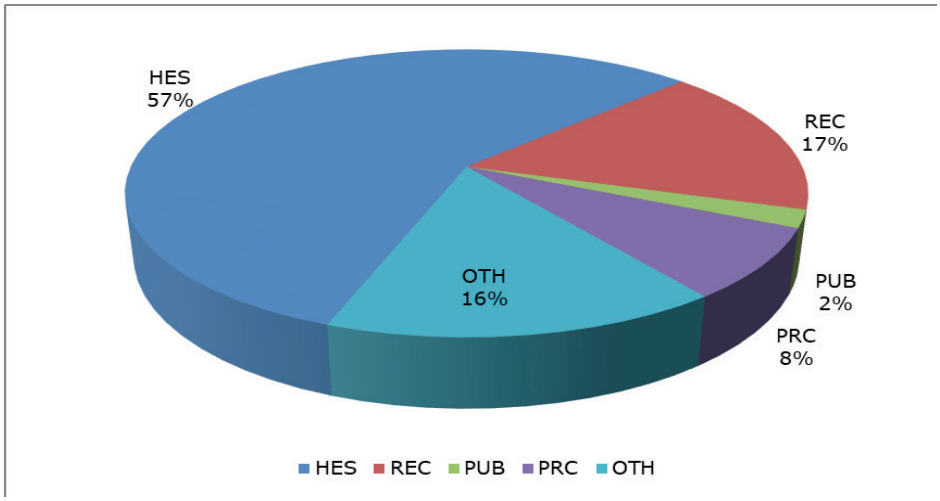
SSH partners accounted for 75% of project partners (331 out of 443) in the 40 projects. The five most represented EU countries were the United Kingdom, Germany, Italy, Belgium and France. It is worth also noting the relatively large presence of third countries such as Australia and China.




Project coordination was done by an SSH partner in 29 out of the 40 projects. The SSH project coordinators are affiliated with the 13 countries listed below.

| Country of affiliation of SSH partners | UK | DE | IT | AT | BE | NL | FR | SE | NO | CY | LT | EL | EE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of projects coordinated | 7 | 4 | 4 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 29 |

In terms of type of activity, as many as 57% of the SSH partners are higher education institutions (HES) and 17% research organisations (REC), along with 16% other institutions (OTH).




In terms of SSH expertise type across all 40 funded projects, one cluster of disciplines is prevalent: 29% of projects include partners with expertise in Political Science and Public Administration.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Political science/Public administration | 274 | 29% |
| Non - Research activities (Business, Communication, Project management) | 90 | 10% |
| Law | 86 | 9% |
| Sociology | 79 | 8% |
| Economics | 76 | 8% |
| History | 73 | 8% |
| Humanities/Arts | 62 | 7% |
| Communication | 48 | 5% |
| Anthropology/ Ethnology | 45 | 5% |
| Education | 43 | 5% |
| Business/Marketing | 31 | 3% |
| Psychology | 19 | 2% |
| Human geography | 12 | 1% |
| Demography | 3 | 0% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 98% of projects funded under the SC6 topics flagged for SSH show good integration of SSH and of their contributions while 3%[7] of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 1 | 3% |
| Weak | 0 | 0% |
| Fair | 0 | 0% |
| Good | 39 | 98% |
| Total | 40 | 100% |

- With the 20% threshold: 90% of projects funded under the SC6 topics flagged for SSH show good integration of SSH and of their contributions while 6% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 1 | 3% |
| Weak | 1 | 3% |
| Fair | 2 | 5% |
| Good | 36 | 90% |
| Total | 40 | 100% |

7 Inconsistencies in the percentages are due to the rounding up of numbers.

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**ENG-GLOBALLY-10-2017: Migration and asylum systems** | Specific Challenge: The pressures currently placed on the Common European Asylum System (CEAS) by the ongoing crises in Syria, Iraq, Central and East Africa, and elsewhere are unlikely to fade away in the near future. The specific challenge of this research action is to reassess the CEAS with a view to making any necessary recommendations. The overriding key question is to explore to what extent harmonisation of the CEAS is necessary, desirable, achievable and sustainable.<br>Scope: Research is needed to comprehensively assess the weaknesses and shortcomings of the CEAS in general and of the Dublin arrangements in particular. Research will clearly differentiate between deficiencies in the legal design of the system and in its implementation. Comparative research will also investigate differences the asylum laws and policies of Member States, including their implementation under stress. In particular, research will investigate, including empirically, how much and what kind of harmonisation is required, sustainable and acceptable, and possibly outline scenarios. |
| **PROJECT**<br><br>**TRACES – Transmitting Contentious Cultural Heritages with the Arts: From Intervention to Co-Production** | TRACES aims to provide new directions for cultural heritage institutions to contribute productively to evolving European identity and reflexive Europeanization. It deploys an innovative ethnographic/artistic approach, focused on a wide range of types of 'contentious heritage.' Attention to contentious heritage is crucial as it is especially likely to raise barriers to inclusivity and convivial relations, as well as to be difficult to transmit to the public. Transmitted effectively, however, it is potentially especially productive in raising critical reflection and contributing to reflexive Europeanization, in which European identity is shaped by self-awareness and on-going critical reflection.<br>Through rigorous and creative in-depth artistic/ethnographic research, TRACES will provide a systematic analysis of the challenges and opportunities raised by transmitting contentious, awkward and difficult pasts and by setting up Creative Co-Productions (CCPs) in which artists, researchers, heritage agencies and stakeholders work together in longer term engagements to collaboratively research selected cases of contentious heritage and develop new participatory public interfaces.<br>More on http://www.traces.polimi.it/ |

## 4.7 Societal Challenge 7 'Secure Societies – Protecting freedom and security of Europe and its citizens'

In 2017, SC7 funded a total of 16 topics under 3 calls for proposals: Call for Critical Infrastructure Protection, Call for Digital Security Focus Area and Call for Security.

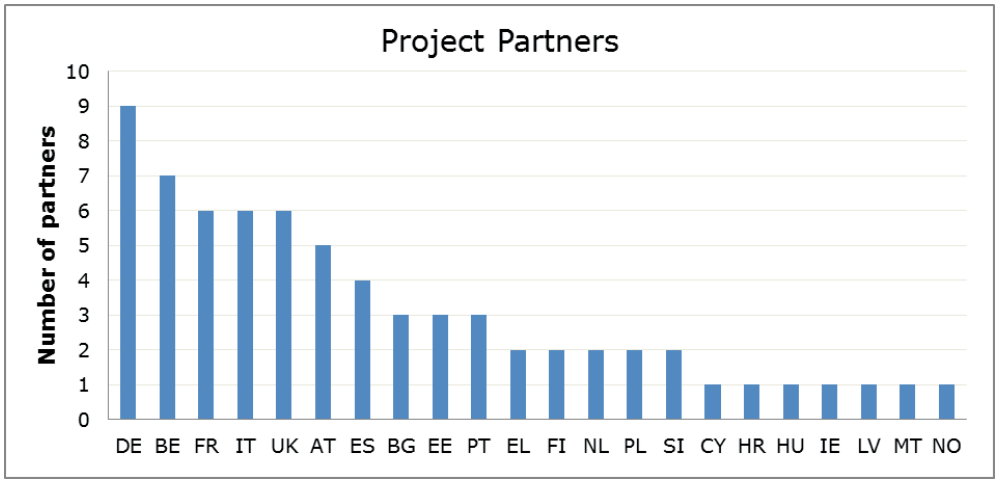
The 2016-17 Work Programme set the budget for these 16 topics at €186 million.
Overall 6 out of the 16 topics were flagged for SSH:

- 1 topics under the call for Critical Infrastructure Protection
- 2 topics under the call for Digital Security Focus Area
- 3 topics under the call for Security

These 6 topics funded 22 projects for a budget of €87 million, out of which €17 million (i.e. 20%) went to SSH partners.
In terms of types of action, the 22 funded projects included:

- 10 Research and Innovation Actions
- 12 Innovation Actions

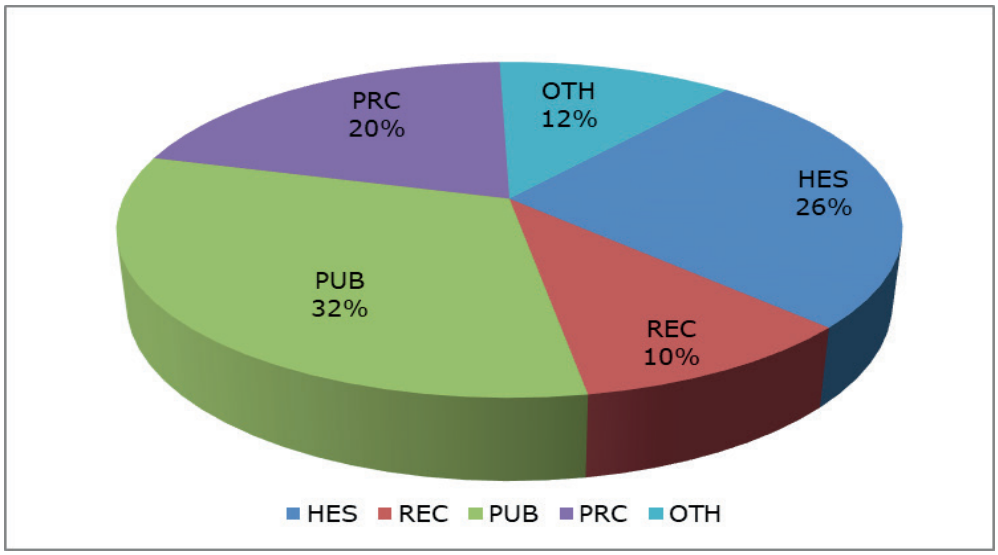
SSH partners accounted for 27% of project partners (74 out of 275) in the 22 projects. The five most represented EU countries were Germany, Belgium, and ex-aequo France, Italy and the United Kingdom.




Project coordination was done by an SSH partner in 5 out of the 22 projects. The SSH project coordinators are affiliated with the 3 countries listed below.

| Country of affiliation of SSH partners | DE | UK | BE | |
|---|---|---|---|---|
| Number of projects coordinated | 2 | 2 | 1 | **5** |

In terms of type of activity, as many as 32% of the SSH partners are public bodies (PUB) and 26% higher education institutions (HES).




In terms of SSH expertise type across all 22 funded projects, two clusters of disciplines are prevalent: 27% of projects include partners with expertise in Law, while 21% of projects include partners with expertise in Business and Marketing.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Law | 48 | 27% |
| Business/Marketing | 38 | 21% |
| Sociology | 25 | 14% |
| Political Sciences/Public Affairs | 19 | 11% |
| Non - Research activities (Business, Communication, Project management) | 17 | 10% |
| Psychology | 8 | 4% |
| Communication | 8 | 4% |
| Education | 5 | 3% |
| Economics | 4 | 2% |
| Humanities/Arts | 3 | 2% |
| Anthropology/ Ethnology | 2 | 1% |
| Demography | 1 | 1% |
| Human Geography, Demography | 0 | 0% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 50% of projects funded under the SC7 topics flagged for SSH show good integration of SSH and of their contributions while 37% of projects featured an insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 5 | 23% |
| Weak | 3 | 14% |
| Fair | 3 | 14% |
| Good | 11 | 50% |
| Total | 22 | 100% |

- With the 20% threshold: 27% of projects funded under the SC7 topics flagged for SSH show good integration of SSH and of their contributions while 59% of projects featured insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 8 | 36% |
| Weak | 5 | 23% |
| Fair | 3 | 14% |
| Good | 6 | 27% |
| Total | 22 | 100% |

Good practice example:

| | |
|---|---|
| **TOPIC**<br><br>**SEC-07-FCT-2016-2017: Human Factor for the Prevention, Investigation, and Mitigation of criminal and terrorist acts.** | Specific Challenge: The European Union must prevent, and if necessary investigate and mitigate the impact of criminal acts, whilst protecting fundamental rights of its citizens. The consistent efforts made by the EU Member States and the Union to that effect are not enough, especially when criminal groups and their activities expand far beyond national borders.<br>Scope: The new European Agenda on Security underlines that, an EU-wide approach to security, integrating prevention, investigation and mitigation capabilities in the area of fight against crime is increasingly required. The definition of a European Security Model which builds upon the analysis of the human factors, at the roots of the design of security strategies and methodologies, is needed. Such a Model would encompass: the development of a common understanding of security issues among EU security practitioners, as well as of the causes and effects of insecurity among EU citizens; common EU methodologies to be implemented by security practitioners (about enhancing prevention and anticipation and/or the timely involvement of all the actors that have a role in protection from the political, economic and social scene). The globalization of communications and finance infrastructure allows for cybercrime to develop, and corruption and financial crime to take new forms. Cyber criminality is a phenomenon by which criminal acts with new tools and within a new environment, which is not satisfactorily understood, nor properly addressed. The same applies to the innovative technologies and methodologies for financial crime. Law Enforcement Agencies need new equipment to counter such developments. |
| **PROJECT**<br><br>**VisiOn - Visual Privacy Management in User Centric Open Environments.** | VisiOn will deliver a high Technology Readiness Level (TRL) Visual Privacy Management Platform, which empowers any citizen to achieve desired levels of privacy by creating and monitoring a personal Privacy Level Agreement.<br>The platform will provide clear visualisation of privacy preferences, relevant threats and trust issues along with an insight into the economic value of user data. The platform will equip public administrations (PA) with the right tools to improve the transparency and accountability of their operations, by supporting visual analysis of privacy issues at different levels and perspectives; regulation compliance; and business/operational processes.<br>More on http://www.visioneuproject.eu/ |

## 4.8 LEIT-ICT 'Leadership in enabling and industrial technologies - Information and Communication Technologies'

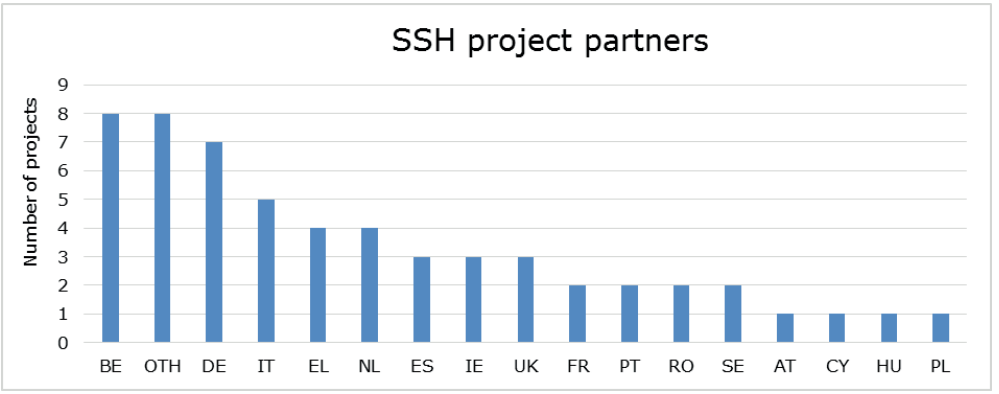
In 2017 LEIT-ICT funded a total of 27 topics under two calls for proposals: Information and Communication Technologies (ICT) as well as EU-Brazil Research and Development Cooperation in Advanced Cyber Infrastructure (EUB). The 2016-17 Work Programme set the budget for these topics at € 634 million.
Overall, 4 out of the 27 topics were flagged for SSH:

- 4 topics under the call ICT

These 4 topics funded 22 projects for a budget of € 44 million, out of which € 14 million (i.e. 32%) went to SSH partners.
In terms of types of action, the 22 funded projects included:

- 4 Research and Innovation Actions
- 15 Innovation Actions
- 3 Coordination and Support Actions.

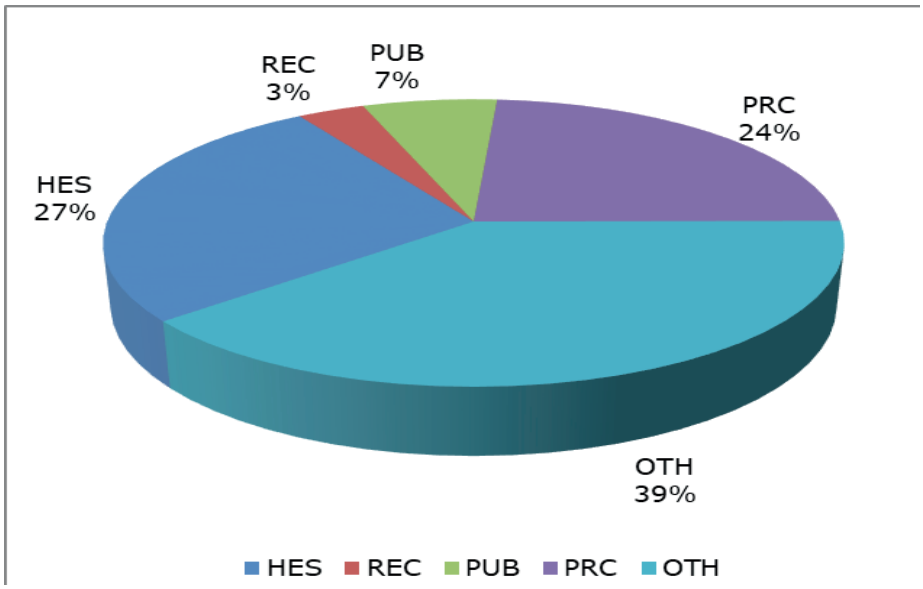
SSH partners accounted for 34 % of project partners (69 out of 201) in the 22 projects. The three most represented countries are Belgium, Germany, and Italy.




Projects were coordinated by an SSH partner in 9 out of the 22 projects. The SSH project coordinators were affiliated with the following eight countries: Italy (2), UK, France, Spain, Sweden, Portugal, Norway, and Austria (1).

| Country of affiliation of SSH partners | IT | AT | ES | FR | PT | NO | SE | UK | |
|---|---|---|---|---|---|---|---|---|---|
| Number of projects coordinated | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | **9** |

In terms of activity type, as many as 51% of all SSH partners were either higher education institutions (HES) or entities from the private sector (PRC).




In terms of type of SSH expertise across all 22 projects funded under the SSH-flagged topics, three clusters of disciplines were prevalent: Business/Marketing, Education and the Humanities/Arts.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Business/marketing | 33 | 17% |
| Non - Research activities (Business, Communication, Project management) | 33 | 17% |
| Education | 30 | 16% |
| Humanities/Arts | 23 | 12% |
| Communication | 20 | 11% |
| Law | 16 | 8% |
| Sociology | 11 | 6% |
| Economics | 11 | 6% |
| Political sciences/Public affairs | 6 | 3% |
| Psychology | 5 | 3% |
| Demography | 2 | 1% |
| Anthropology, Ethnology | 1 | 0% |
| Human Geography, Demography | 0 | 0% |

When it comes to the quality of SSH integration:

- With the 10% threshold: 68% of the projects funded under the LEIT-ICT topics flagged for SSH showed good integration of SSH partners and of their contributions, while 14% of projects featured an insufficient level of SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 1 | 5% |
| Weak | 2 | 9% |
| Fair | 4 | 18% |
| Good | 15 | 68% |
| Total | 22 | 100% |

- With the 20% threshold: 52% of projects funded under the LEIT-ICT topics flagged for SSH showed good integration of SSH partners and of their contributions, while 22% of projects featured an insufficient level of SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 2 | 9% |
| Weak | 3 | 13% |
| Fair | 6 | 26% |
| Good | 12 | 52% |
| Total | 23 | 100% |

Good practice example:

| | |
|---|---|
| **PROJECT**<br><br>**Go-Lab Goes Africa, Deploying Contextually Engaging Digital Science, Technology, Engineering and Mathematics Educative Content in Africa by Adapting the Proven Go-Lab Ecosystem to Local Needs** | Go-Lab goes Africa: GO-GA's main objective is to adapt and implement the successful Go-Lab Learning Ecosystem in Africa, first piloting in 3 countries and then scaling up to more users and more countries.<br>The Go-Lab ecosystem, offers students rich, challenging, and socially embedded science and technology experiences that shape their science and technology knowledge, together with reflective and social abilities. By starting at a young age, Go-Lab intends to increase the enrolment in science and technology education, by offering engaging instruction its aims to decrease the level of dropout of students, and by combining inquiry and 21st century skills it expects to contribute to a better-equipped workforce.<br>The purpose of the GO-GA project is to take Go-Lab outside of Europe, to adapt its ecosystem to African requirements and to roll it out on the African continent, which cannot go without an extensive training of teachers in pedagogical and technical skills.<br>More on https://go-ga.org/ |

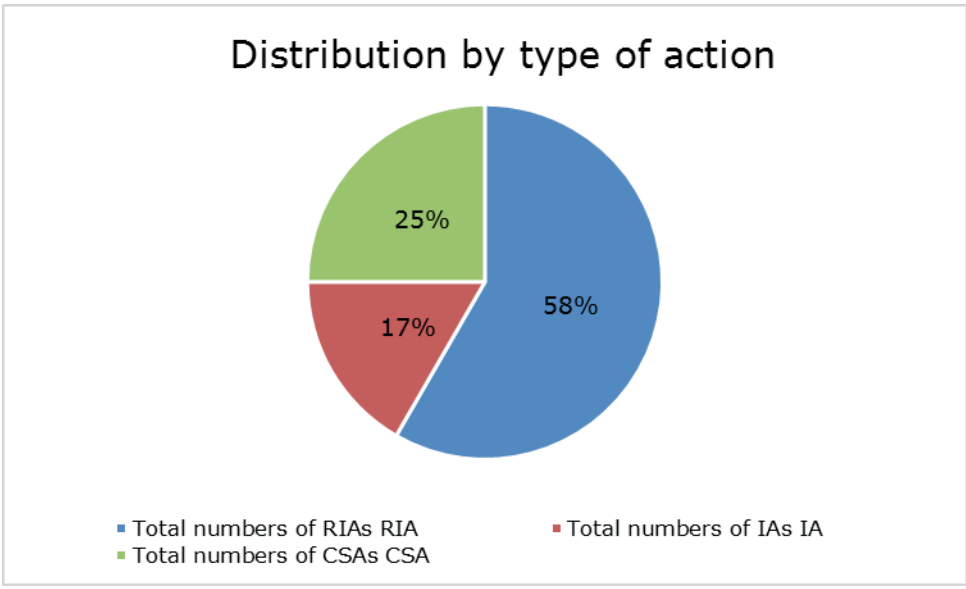
## 4.9 LEIT-NMBP 'Leadership in enabling and industrial technologies - Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing'

In 2017 LEIT-NMBP funded a total of 55 topics under three calls for proposals: Nanotechnologies, Advanced Manufacturing and Processing, as well as Biotechnology. The 2016-17 Work Programme set the budget for these 55 topics at €260 million.
Seven out of the 20 topics were flagged for SSH:

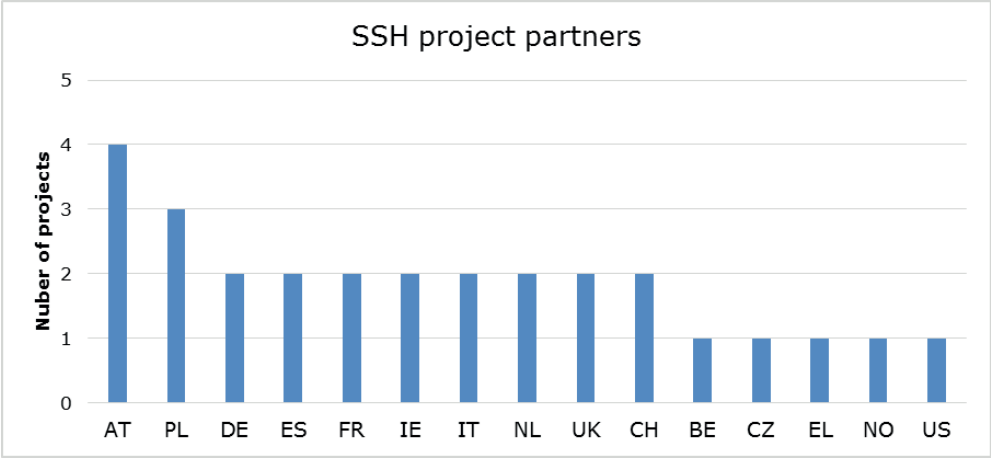
- 3 topics under the call Nanotechnologies
- 2 topics under the call Advanced Manufacturing and Processing
- 2 topics under the call Biotechnology

These 7 topics funded 12 projects for a budget of €64 million, out of which €9 million (i.e. 14%) went to SSH partners.
In terms of types of action, the 12 funded projects included:

- 7 Research and Innovation Actions
- 2 Innovation Actions
- 3 Coordination and Support Actions.



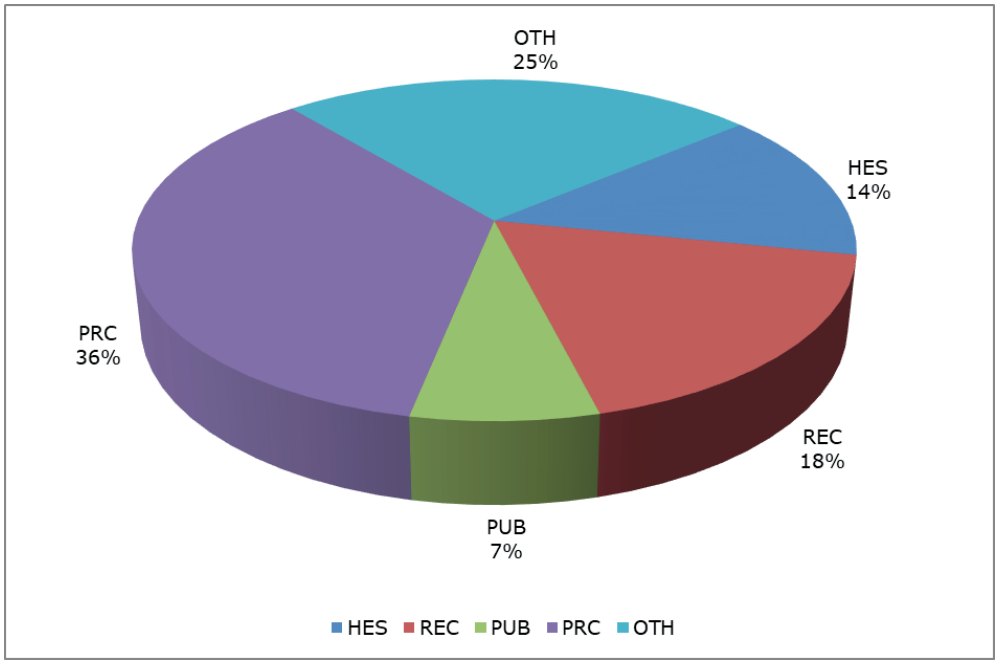

SSH partners accounted for 18% of project partners (30 out of 165) in the 12 projects. The two most represented countries were Austria and Poland.




In two of the 12 projects the coordinator had SSH expertise and these partners come from Denmark and Italy.
In terms of activity type, this was the distribution in 2017, with a clear prevalence of non-research activities.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| Disciplines and clusters of disciplines | Number of experts per discipline | Share of experts that include partner-level expertise |
| Non - Research activities (Business, Communication, Project management) | 17 | 22% |
| Humanities / Arts | 13 | 17% |
| Communication | 11 | 14% |
| Business/Marketing | 10 | 13% |
| History | 7 | 9% |
| Political Sciences/Public Affairs | 7 | 9% |
| Economics | 7 | 9% |
| Sociology | 3 | 4% |
| Law | 2 | 3% |
| Education | 1 | 1% |
| Psychology | 0 | 0% |
| Anthropology, Ethnology | 0 | 0% |
| Sociology | 0 | 0% |

In terms of type of SSH expertise across all 12 projects funded under the SSH-flagged topics, three other clusters of disciplines were also prominently represented: humanities/ arts, communication and business and marketing.
In terms of type of institutions, there was a strong presence of the private sector with 36% of all entities participating in the projects.




When it comes to the quality of SSH integration:

- With the 10% threshold: 42% of projects funded under the LEIT-NMBP topics flagged for SSH showed good integration of SSH partners and of their contributions, while 25% of projects had insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 10% treshold | | |
| None | 3 | 25% |
| Weak | 0 | 0% |
| Fair | 4 | 33% |
| Good | 5 | 42% |
| Total | 12 | 100% |

- With the 20% threshold: 8% of projects funded under the LEIT-NMBP topics flagged for SSH showed good integration of SSH partners and of their contributions, while 66% of projects had insufficient SSH quality.

| Quality of SSH integration | Number of projects | Share of projects |
|---|---|---|
| With the 20% treshold | | |
| None | 4 | 33% |
| Weak | 4 | 33% |
| Fair | 3 | 25% |
| Good | 1 | 8% |
| Total | 12 | 100% |

Good practice example:

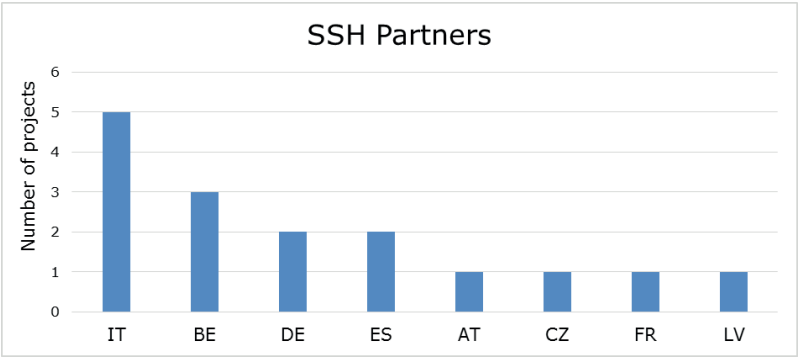
| | |
|---|---|
| **PROJECT**<br><br>**GoNano – Governing Nanotechnologies through societal engagement** | GoNano has as its main objective to improve the responsiveness of research & innovation processes to public values and concerns. The project builds on previous projects in public engagement and new technologies to develop a pilot project in each of the nanotechnology research areas 'Health', 'Energy' and 'Food'. The pilot projects will engage citizens with researchers, professional users, civil society organisations, industry, and policy makers in a continuous process of deliberative workshops and online consultations to co-create concrete suggestions for future nanotechnologies. GoNano will build a broad community of 'change agents' for integrating an 'RRI way' of working on research and innovation, and it will develop and disseminate an RRI business case to align public values, needs and concerns with industry' for profit ambition.<br>More on http://www.nano2all.eu/ |

## 4.10 LEIT-SPACE 'Leadership in enabling and industrial technologies – Space'

In 2017 LEIT-SPACE funded a total of 14 topics under 1 call for proposals: Competitiveness of the European Space Sector: Technology and Science (COMPET). The 2016-17 Work Programme set the budget for these 14 topics at €99 million.

Two of these topics were flagged for SSH in 2017. Under these topics 3 projects were undertaken with a budget of €4.5 million, of which almost €4 million went to SSH partners (circa 87%).
In terms of types of action, the 3 funded projects were all Coordination and Support Actions (CSA).

The most represented countries were Italy, Belgium, Germany and Spain.




In general terms the funded projects featured a high share of SSH partners and all projects were coordinated by SSH institutions from Poland, Germany and Portugal.
As regards to disciplines, the most visible category was business and marketing with 41%, given the specific nature of space related activities, such as innovative enterprises.

| Discipline prevalence in projects funded under SSH flagged topics | | |
|---|---|---|
| **Disciplines and clusters of disciplines** | **Number of experts per discipline** | **Share of experts that include partner-level expertise** |
| Business/Marketing | 26 | 41% |
| Non - Research activities (Business, Communication, Project management) | 19 | 30% |
| Economics | 6 | 10% |
| Communication | 3 | 5% |
| Law | 3 | 5% |
| Psychology | 2 | 3% |
| Political Sciences/Public Affairs | 2 | 3% |
| Humanities/Arts | 1 | 2% |
| Sociology | 1 | 2% |

Finally, as regards quality with both 10% and 20% threshold as many as 67% of projects showed very good results, with none featuring insufficient SSH integration.

Good practice example:

| | |
|---|---|
| **PROJECT**<br><br>**SPACE-UP: Assisting European SPACE Start-ups in scaling UP** | SPACE-UP promotes technology transfer, networking, outreach and matchmaking with business angels, crowd funders, investors, human resource specialists and CEOs from corporates, culminating in six European SPACE ACADEMIES. Exposure to strategic corporate investors is being increased by engaging actively with relevant high tech industries like automotive, robotics. SPACE-UP experts offer advice on how to best profit from the opportunities represented by the EC Public Funds and the European Space Agency. Promising tech start-ups (space and non-space-related) are being guided through already existing services offered (esp. ESA-BICs, EEN and NCPs i.a.).<br>SPACE-UP builds on activities carried out by ESA's Technology Transfer Programme Office (TTPO) and ESA BICs, and fosters the uptake of space data and services by non-space industrial and service players for further commercial applications. SPACE-UP reinforces the spin-out efforts of ESA in the cross-fertilization through enhancing connection and networking with non-space technology experts, e.g. in marine, logistics, land-use and security. It also fosters spin-in activities from these into the space sector.<br>More on https://www.spaceupeurope.eu/ |

# 5. SSH IN THE EUROPEAN RESEARCH COUNCIL (ERC)

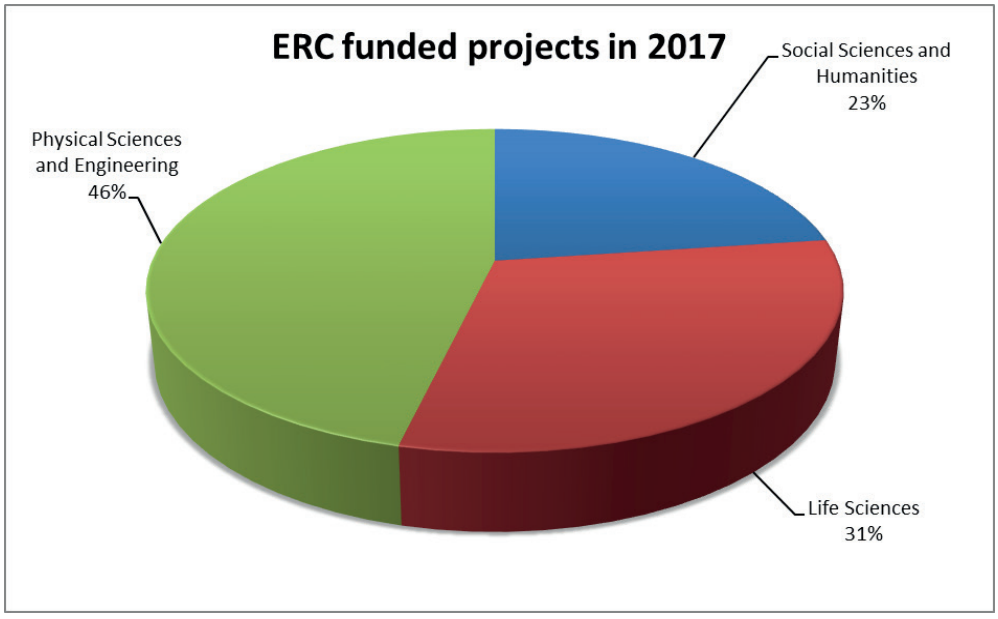
Below are some key data on the Social Sciences and Humanities in the European Research Council. The data have been provided by the European Research Council Executive Agency and this chapter complements the information on SSH in other parts of the programme.

## 5.1 Budget and number of grants for SSH in the ERC – 2017

### 5.1.1 Budget

| Awarded budget, EUR | 2017 |
|---|---|
| Social Sciences and Humanities | 431,226,295 |
| Life Sciences | 582,657,786 |
| Physical Sciences and Engineering | 874,057,559 |
| **Total** | **1,887,941,640** |

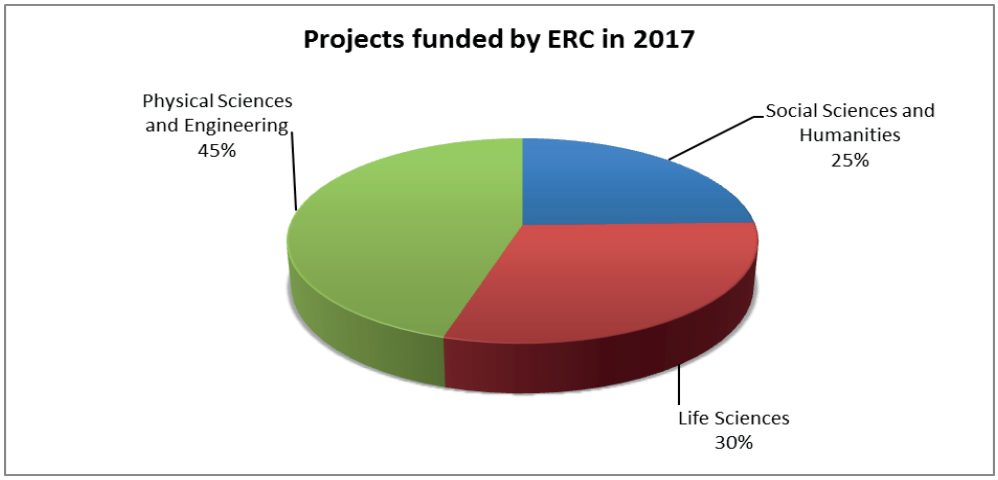
In 2017 more than 431 million euros were awarded via the SSH panels of the ERC, which constitutes an important increase in comparison to 2016 (+17.1% year over year). As illustrated in the table below this constituted 23% of the overall grants that year, which is also a 2 percentage points (pp) rise in comparison to the previous year for SSH.



### 5.1.2 Number of projects

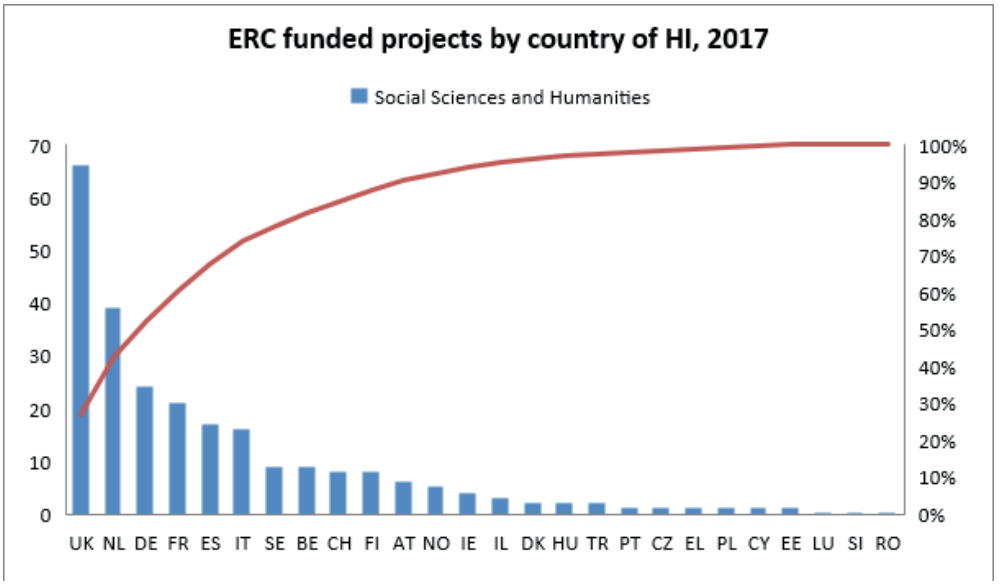
In terms of the number of grants 247 out of 1004 grants were related to SSH, which represents a share of 25% of all projects. This is again a significant increase in comparison to 2016 (an almost a 3 pp hike).

| | 2017 |
|---|---|
| Social Sciences and Humanities | 247 |
| Life Sciences | 302 |
| Physical Sciences and Engineering | 455 |
| **Total** | **1004** |




## 5.2 Country of Host Institution

Overall, for 2017 the UK (66 projects, and as much as 30% of all SSH related grants), the Netherlands (39) and Germany (24) had the largest share of SSH projects in the ERC, followed by France (21), Spain (17) and Italy (16). On the other end of the spectrum a number of countries only had one project (Portugal, Czech Republic, Greece, Poland, Cyprus, Estonia) or none at all (Luxembourg, Slovenia, Romania). Finally, it is worth noting the very good performance of non-EU countries such as Switzerland (8), Norway (5) or Israel (3).



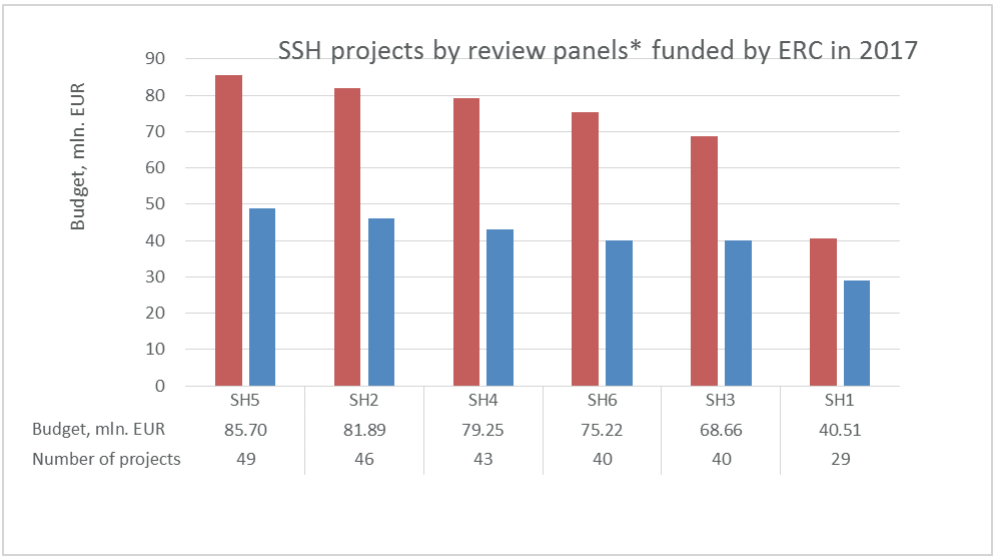

## 5.3 Review Panels (*) and indications of inter-disciplinarity

In ERC there are six SSH related review panels. In 2017 the SH5, the «Cultures and Cultural Production» panel, had the biggest share both in terms of budget and number of grants, closely followed by SH2 and SH4 (see table). This constitutes a notable change in comparison to 2016, when SH4 was the leading panel. However, as the figure below shows, the number of grants is divided fairly equally between each of the domains, except to some extent for SH1.

*Review panels (as in 2017):

SH1 - Individuals, Markets and Organisations
SH2 - Institutions, Values, Environment and Space
SH3 - The Social World, Diversity, Population
SH4 - The Human Mind and Its Complexity
SH5 - Cultures and Cultural Production
SH6 - The Study of the Human Past

When asked about ERC keywords the Principal Investigators (PIs) at submission most frequently chose themes such as Legal studies/Constitutions, Diversity/Identities, Attention/Perception and Social anthropology/Religion. However if one counts different sub-categories of such keywords - chosen by the PIs related to the six panels above - disciplines such as Economics, History, Sociology, Political science and Psychology were very well represented.



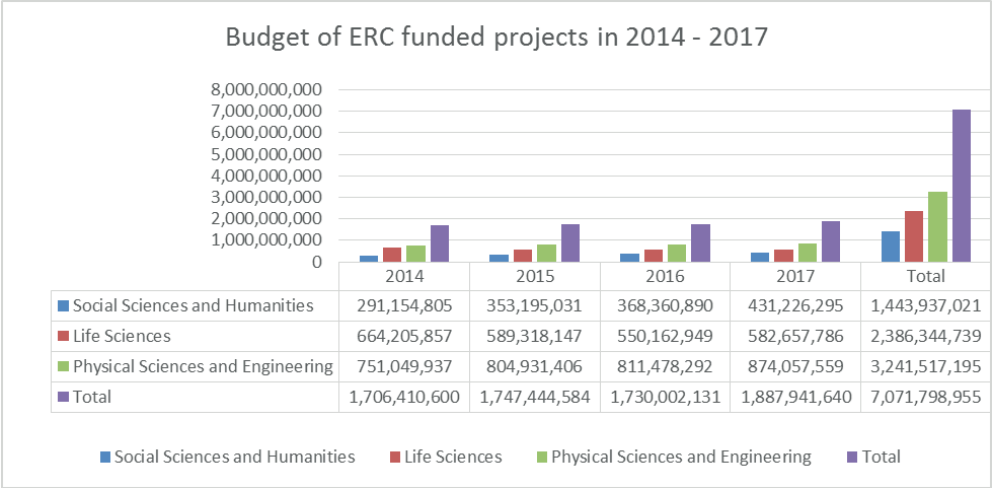

## 5.4 Evolution for 2014-17

### 5.4.1. Budget

Budget wise a clearly positive and constant trend is visible over the period 2014-2017.

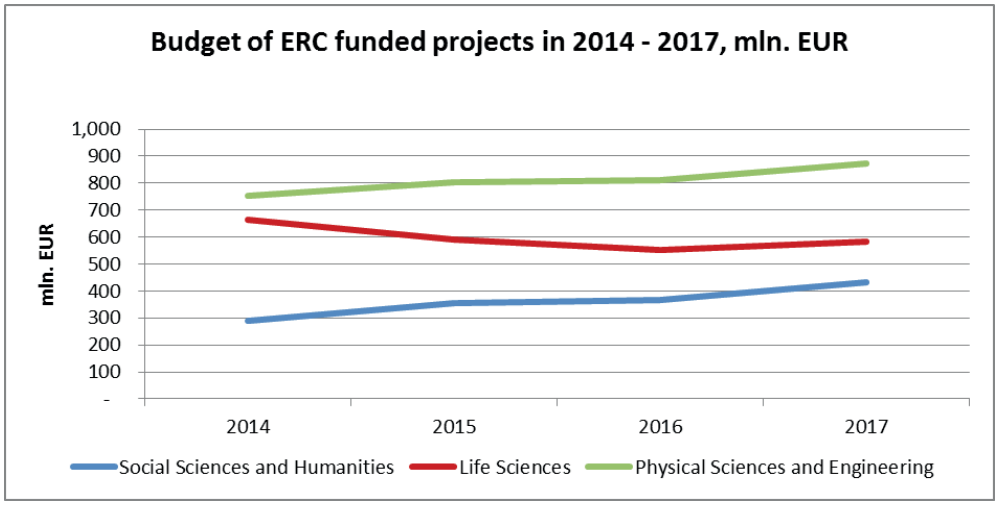
| Awarded budget, EUR | 2014 | 2015 | 2016 | 2017 | Total |
|---|---|---|---|---|---|
| Social Sciences and Humanities | 291,154,805 | 353,195,031 | 368,360,890 | 431,226,295 | 1,443,937,021 |
| Life Sciences | 664,205,857 | 589,318,147 | 550,162,949 | 582,657,786 | 2,386,344,739 |
| Physical Sciences and Engineering | 751,049,937 | 804,931,406 | 811,478,292 | 874,057,559 | 3,241,517,195 |
| Total | 1,706,410,600 | 1,747,444,584 | 1,730,002,131 | 1,887,941,640 | 7,071,798,955 |

SSH had a particularly positive development from 2014 to 2015 and then again from 2016 to 2017.



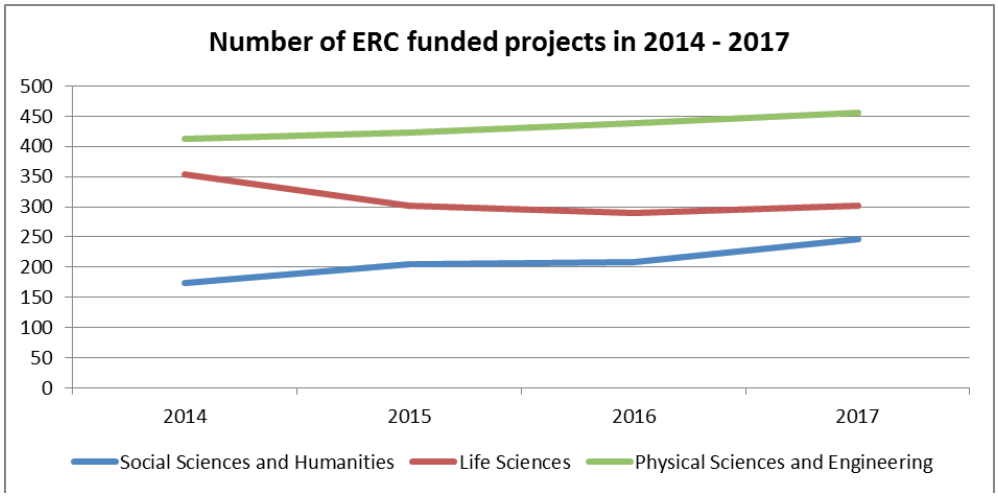

| | 2014 | 2015 | 2016 | 2017 | Total |
|---|---|---|---|---|---|
| Social Sciences and Humanities | 291,154,805 | 353,195,031 | 368,360,890 | 431,226,295 | 1,443,937,021 |
| Life Sciences | 664,205,857 | 589,318,147 | 550,162,949 | 582,657,786 | 2,386,344,739 |
| Physical Sciences and Engineering | 751,049,937 | 804,931,406 | 811,478,292 | 874,057,559 | 3,241,517,195 |
| Total | 1,706,410,600 | 1,747,444,584 | 1,730,002,131 | 1,887,941,640 | 7,071,798,955 |

In 2014 the share of SSH was 17% while in 2017 the number is 23%. Overall for the period 2014-17 the share of SSH is around 20% in general funding terms.



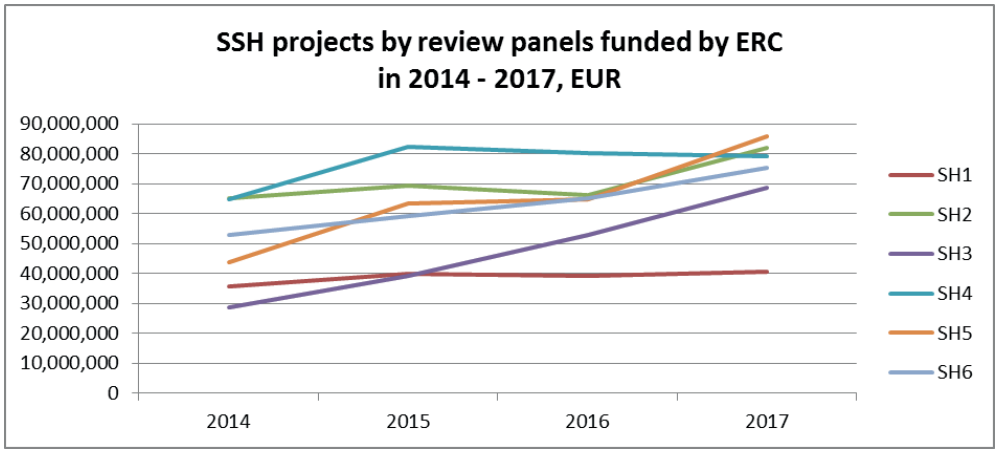

## 5.4.2. Number of Projects

When it comes to the number of grants for SSH from 2014 to 2017 there was a large increase from 173 to 247 grants, confirming the growing place of SSH related areas in the ERC.

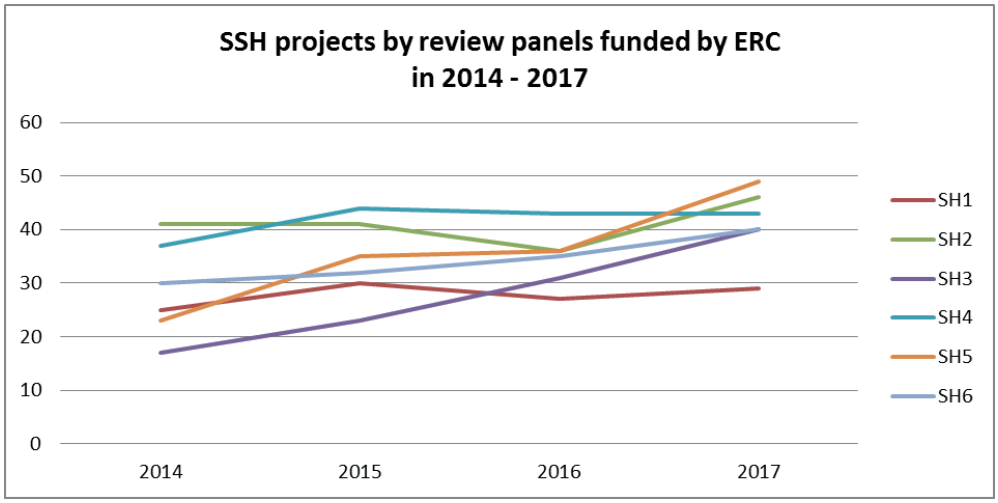



SSH is now gradually catching up with other sectors, e.g. life sciences, but the distance is still sizable with physical sciences and engineering.

When comparing SSH with the other two domains, SSH had a share of 18% in 2014 and in 2017 this figure increased to approximately 25%, which represents considerable progress over the three-year period.




Finally, in terms of review panels there is a visibly marked evolution with a particularly strong increase for SH5 – 'Cultures and Cultural Production' and SH 3 – 'The Social World, Diversity, Population' over the years. This is true both in terms of the number of projects as well as budget.




Good practice example:

| | |
|---|---|
| **PROJECT**<br><br>**EVALUATE – 'Energy Vulnerability and Urban Transitions in Europe'** | EVALUATE uses a novel conceptual framing – energy vulnerability – to explore how fuel poverty and domestic energy deprivation affect households and communities over prolonged periods of time, and in relation to existing structures of political and economic power. The project aims to generate a conceptual shift in the mainstream theorisation of energy poverty, away from the present focus on poverty, access and energy efficiency, onto more complex and nuanced issues of household resilience, precariousness and political recognition. Alongside theoretical and policy innovations, EVALUATE is aimed at advancing the state of the art in energy poverty methodology, by providing the first comprehensive investigation of the numerous social and spatial dimensions of energy poverty in the grain of the city. Central and Eastern European cities are the project's primary research site, due to their unique combination of cold climates, higher-than-average rates of inefficient housing, inadequately developed and/or decaying infrastructure, large income differentials and economic/political restructuring issues.<br>Project website: https://urban-energy.org/evaluate/<br>The project has also received media coverage (e.g. Energy world magazine, Euractiv, Horizon magazine, University of Bergen magazine and many others) and several YouTube videos are available. |

# 6. SOCIAL SCIENCES AND HUMANITIES (SSH) IN THE FUTURE EMERGING TECHNOLOGIES (FET)[8]

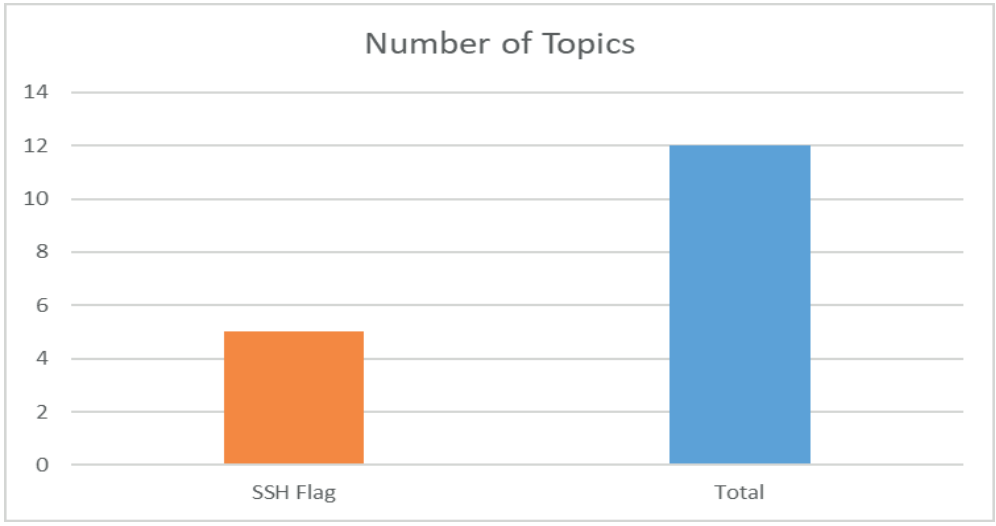
Future and Emerging Technologies (FET) involves SSH research in order to tackle societal challenges and to provide the most suitable impact for society. The mission of FET is to turn Europe's excellent science base into a competitive advantage. FET actions are expected to initiate radically new lines of technology through unexplored collaborations between advanced multidisciplinary science and cutting-edge engineering.
In order to do so, the following aspects need to be considered in FET projects:

To bridge the gap between the development of an innovative product and its use by early adopters, SSH researchers must be involved.

To lay the foundations for radically new future technologies, interdisciplinary collaborations, including those with the social sciences and humanities, are necessary.

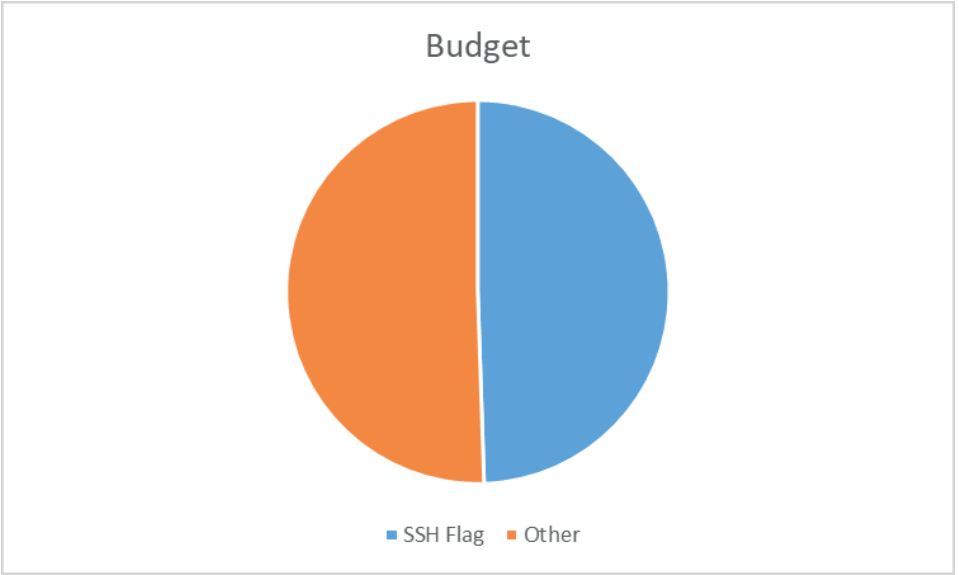
To develop new tools and paradigms leading to new socially interactive media, the combination of social sciences and humanities with neuroscience, engineering, and computing is required. Good collaboration with SSH researchers at the proposal stage is crucial.

Through its Work Programme 2016-2017, FET funded a total of12 topics with a total budget of €570 million.




8 More on this question in 'Successful integration of SSH in «Future and Emerging Technologies» (FET)' on https://www.net4society.eu/_media/fet_final_.pdf

In this context 5 out of 12 topics explicitly required the involvement of SSH disciplines (c. 41.7% of total). Within these topics, 128 projects were funded from a budget of about €282 million (c. 49.5% of total)[9].




Finally, there are a certain number of FET Flagship actions with SSH relevance, such as e.g. the human brain project.

Good practice example:

| | |
|---|---|
| **PROJECT**<br><br>**ODYCCEUS stands for Opinion Dynamics and Cultural Conflict in European Spaces.** | Social media and the digitization of news and discussion fora are having far-reaching effects on the way individuals and communities communicate, organize, and express themselves. Can the information circulating on these platforms be tapped to better understand and analyse the enormous problems facing our contemporary society? ODYCCEUS seeks conceptual breakthroughs in Global Systems Science, including a fine-grained representation of cultural conflicts based on conceptual spaces and sophisticated text analysis, extensions of game theory to handle games with both divergent interests and divergent mind-sets, and new models of alignment and polarization dynamics. The project will also develop an open modular platform, called PENELOPE that integrates tools for the complete pipeline from data scraped from social media and digital sources, to visualization of the analyses and models developed by the project.<br>More on https://www.odycceus.eu/project/ |

9 More on http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-fet_en.pdf

# 7. MARIE SKŁODOWSKA-CURIE[10] ACTIONS (MSCA) - SOCIAL SCIENCES AND HUMANITIES (SSH) INTEGRATION

This chapter discusses the integration of the Social Sciences and Humanities (SSH) in the Marie Skłodowska-Curie Actions (MSCA). The data discussed were provided by unit C2 of DG EAC. The information presented below complements the information on SSH in the first pillar of the programme.

## 7.1. Types of Actions funded under Horizon 2020

The MSCA is a fellowship programme for research supporting researchers in all stages of their career. MSCA funds research across all disciplines, and fosters cooperation between academia, industries and innovative training. Three[11] types of funding actions are discussed: Individual Fellowships[12] (MSCA-IF), Innovative Training Networks (MSCA-ITN), and Research and Innovation Staff Exchange (MSCA-RISE), on the basis of participations[13] and projects. In the Marie Skłodowska-Curie Actions, SSH is defined as a participant or project in either the economic sciences, or the social sciences and humanities, which are outlined separately.

## 7.2. SSH Integration in 2017[14]

### 7.2.1. Participations[15]

In 2017, SSH participants accounted for 16.5% of the 4525 participations in MSCA projects[16]. This is a 2 percentage point decrease compared with 2016, when 18.5% of participations were SSH participants. SSH is best represented in the Individual Fellowship actions, with 25% of the participations, then 17% in the Research and Innovation Staff Exchange actions and 11% in the Innovative Training Networks.

| 2017 Participations, per action | | | | |
|---|---|---|---|---|
| | **MSCA-IF** | **MSCA-ITN** | **MSCA-RISE** | **Total** |
| **ALL** | 1509 | 2152 | 864 | 4525 |
| **SSH** | 371 | 230 | 145 | 746 |

10 The correct spelling of the name in the Polish language is Maria Skłodowska-Curie.
11 MSCA-COFUND projects are disregarded due to the fact that there is no possible differentiation per subject, and therefore the level of SSH-integration cannot be assessed. 'NIGHT' is not discussed because it is an event rather than a project.
12 Each Fellow is also considered a project.
13 Participations are the amount of times an organisation participates in a project, there can be or there are multiple participating organisations per project.
14 All years refer to a call year. There can be a significant time lapse between the call year and the start of the project.
15 It should be mentioned that only SSH and Economics panels are regarded here. However, for completeness it should be noted that a number of other ITNs or RISE, but possibly also IFs might have an interdisciplinary dimension as well, which could possibly include also beneficiaries or partners that have a SSH background.
16 The 2017 numbers are subject to change due to a delay in the reception of reports.

### 7.2.2. Projects

In terms of SSH representation in 2017 MSCA funded projects, as much as 22.3% of 1591 were SSH projects, while in 2016 21.5% of 1473 projects were SSH related. SSH was best represented in the IF actions with 24% of SSH projects, ahead of RISE (17%) and ITN (9%).

| 2017 Participations, per action | | | | |
|---|---|---|---|---|
| | **MSCA-IF** | **MSCA-ITN** | **MSCA-RISE** | **Total** |
| **ALL** | 1356 | 149 | 86 | 1591 |
| **SSH** | 326 | 14 | 15 | 355 |

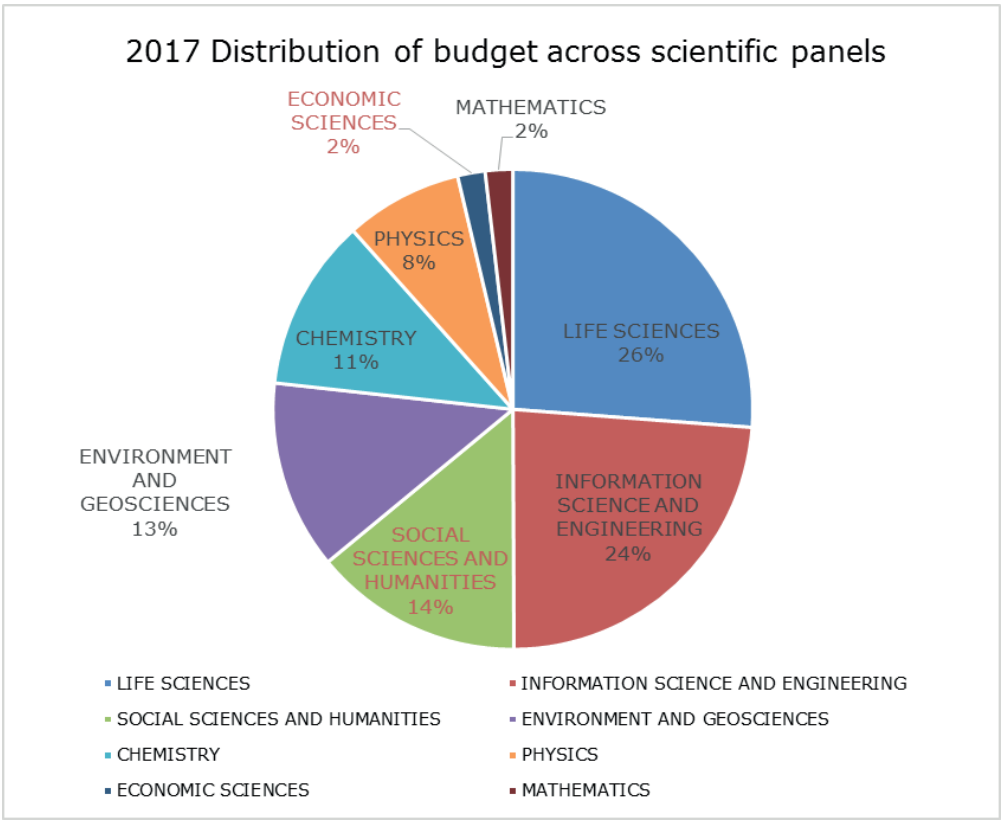
When taking a more detailed look at the distribution of MSCA projects across fields, it is visible that social sciences and humanities are the second largest scientific field, when considering number of projects, while economic science is 7th out of 8 fields. Social sciences and humanities projects account for 20% of the SSH projects in 2017, and economic sciences represent 2%.

| 2017 Projects, per panel and action | | | | | |
|---|---|---|---|---|---|
| | **MSCA-IF** | **MSCA-ITN** | **MSCA-RISE** | **Total** | **Share** |
| LIFE SCIENCES | 367 | 41 | 16 | 424 | 27% |
| **SOCIAL SCIENCES AND HUMANITIES** | 293 | 13 | 11 | 317 | 20% |
| INFORMATION SCIENCE AND ENGINEERING | 155 | 46 | 27 | 228 | 14% |
| ENVIRONMENT AND GEOSCIENCES | 178 | 17 | 10 | 205 | 13% |
| CHEMISTRY | 175 | 19 | 7 | 201 | 13% |
| PHYSICS | 130 | 10 | 7 | 147 | 9% |
| **ECONOMIC SCIENCES** | 33 | 1 | 4 | 38 | 2% |
| MATHEMATICS | 25 | 2 | 4 | 31 | 2% |

### 7.2.3. Budget

In 2017, MSCA funded SSH projects for 129 million euro, which is 16% of the total grants budget that year. This is comparable to the previous year when 126 million euro or 17% of the budget went to SSH projects.

| 2017 Projects, per panel and action | | | | |
|---|---|---|---|---|
| | **MSCA-IF** | **MSCA-ITN** | **MSCA-RISE** | **Total** |
| LIFE SCIENCES | 67 | 129 | 16 | 212 |
| INFORMATION SCIENCE AND ENGINEERING | 29 | 139 | 24 | 192 |
| **SOCIAL SCIENCES AND HUMANITIES** | 55 | 48 | 11 | 114 |
| ENVIRONMENT AND GEOSCIENCES | 33 | 62 | 8 | 103 |
| CHEMISTRY | 31 | 57 | 6 | 94 |
| PHYSICS | 23 | 35 | 6 | 64 |
| **ECONOMIC SCIENCES** | 6 | 4 | 5 | 15 |
| MATHEMATICS | 5 | 6 | 4 | 15 |

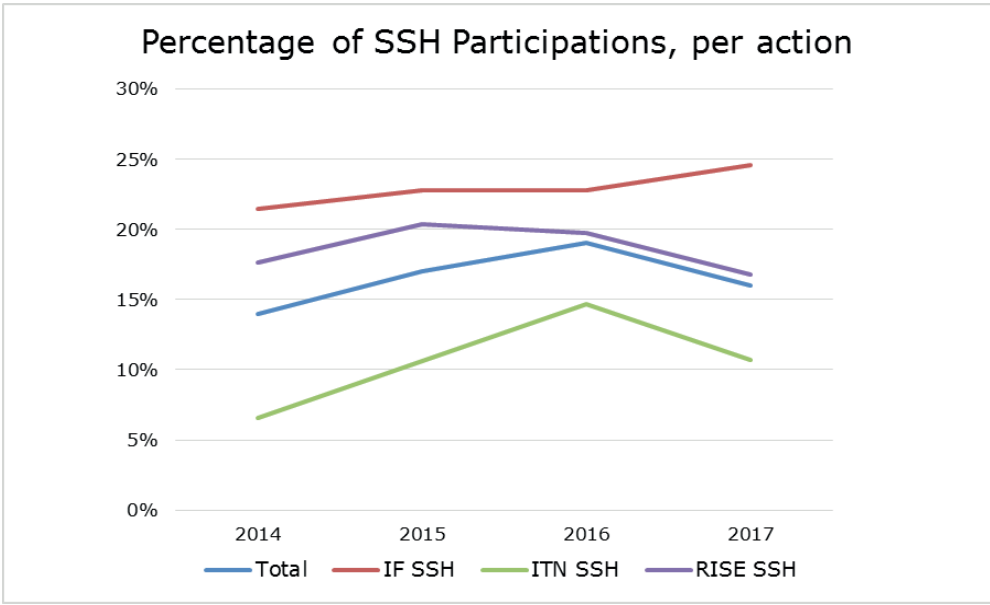


## 7.3. Trends in SSH Integration since 2014

### 7.3.1. Participations

SSH participations have grown considerably between 2014 and 2016, from 14% to 19% of all participations. There is a drop in the 2017 participations[17], going back to 16% of the total number of 4525 participations being SSH. Over the course of these four years, an average of 17% of participations consisted of SSH participations. As in 2017, the Individual Fellowship Action has a clear and strong SSH representation, with an average of 23% of SSH participations.

| Participations, per year and action | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MSCA-IF | | MSCA-ITN | | MSCA-RISE | | Total | |
| | ALL | SSH | ALL | SSH | ALL | SSH | ALL | SSH |
| 2014 | 1569 | 336 | 1768 | 116 | 787 | 139 | 4124 | 591 |
| 2015 | 1394 | 318 | 1681 | 179 | 973 | 198 | 4048 | 695 |
| 2016 | 1411 | 321 | 1822 | 267 | 957 | 189 | 4190 | 777 |
| 2017 | 1509 | 371 | 2152 | 230 | 864 | 145 | 4525 | 746 |
| Total | 5883 | 1346 | 7423 | 792 | 3581 | 671 | 16887 | 2809 |

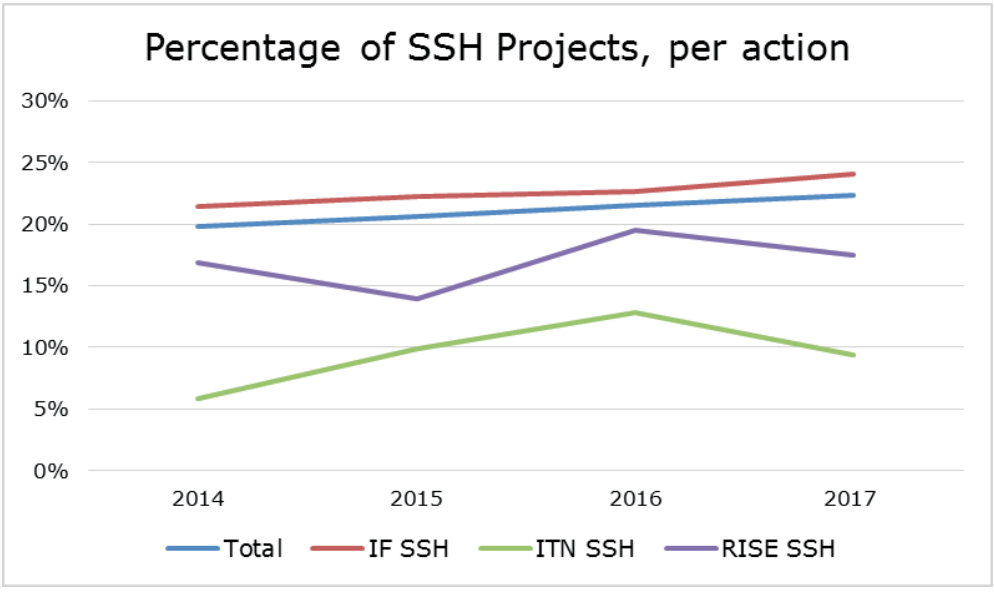



17 The 2017 numbers are subject to change due to a delay in the reception of reports.

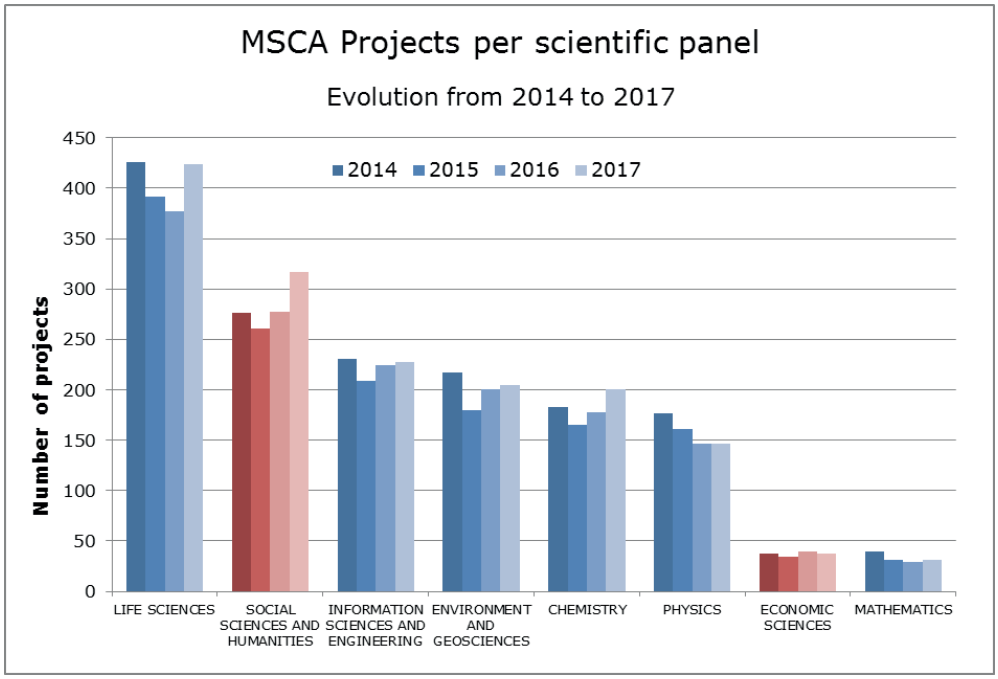
### 7.3.2. Projects

In terms of the total number of projects, 21% of projects funded under the three actions were SSH. The SSH share grew steadily between 2014 and 2017, mostly due to the individual fellowships program, where the SSH portion increased from 21 to 24% over these four years. The SSH share is also relatively high in the RISE action, with 17% SSH projects on average. On the other hand ITN, although increasing in general, was slightly more volatile in its SSH integration evolution. When analysing the funded fields in particular, economic sciences projects consistently make up 2% of the projects. The social sciences and humanities however have grown from 17% of projects in 2014 to 20% in 2017.

| Projects, per year and action | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MSCA-IF | | MSCA-ITN | | MSCA-RISE | | Total | |
| | ALL | SSH | ALL | SSH | ALL | SSH | ALL | SSH |
| 2014 | 1361 | 291 | 138 | 8 | 89 | 15 | 1588 | 314 |
| 2015 | 1209 | 269 | 131 | 13 | 93 | 13 | 1433 | 295 |
| 2016 | 1253 | 283 | 133 | 17 | 87 | 17 | 1473 | 317 |
| 2017 | 1356 | 326 | 149 | 14 | 86 | 15 | 1591 | 355 |
| Total | 5179 | 1169 | 551 | 52 | 355 | 60 | 6085 | 1281 |



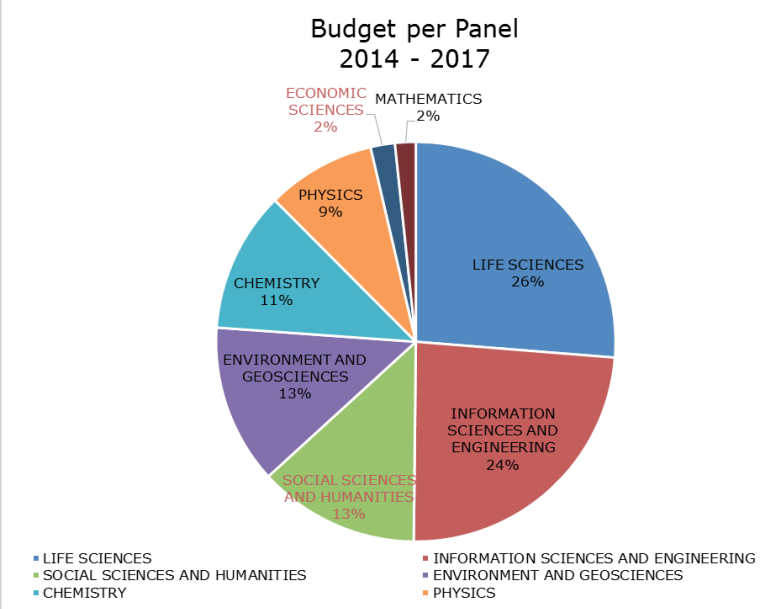
| Distribution of projects per panel | | | | | | |
|---|---|---|---|---|---|---|
| | **2014** | **2015** | **2016** | **2017** | **Total** | **Share** |
| LIFE SCIENCES | 426 | 392 | 377 | 424 | 1619 | 27% |
| **SOCIAL SCIENCES AND HUMANITIES** | 276 | 261 | 277 | 317 | 1131 | 19% |
| INFORMATION SCIENCES AND ENGINEERING | 231 | 209 | 224 | 228 | 892 | 15% |
| ENVIRONMENT AND GEOSCIENCES | 217 | 180 | 201 | 205 | 803 | 13% |
| CHEMISTRY | 183 | 165 | 178 | 201 | 727 | 12% |
| PHYSICS | 177 | 161 | 147 | 147 | 632 | 10% |
| **ECONOMIC SCIENCES** | 38 | 34 | 40 | 38 | 150 | 2% |
| MATHEMATICS | 40 | 31 | 29 | 31 | 131 | 2% |
| **Total** | **1588** | **1433** | **1473** | **1591** | **6085** | **100%** |



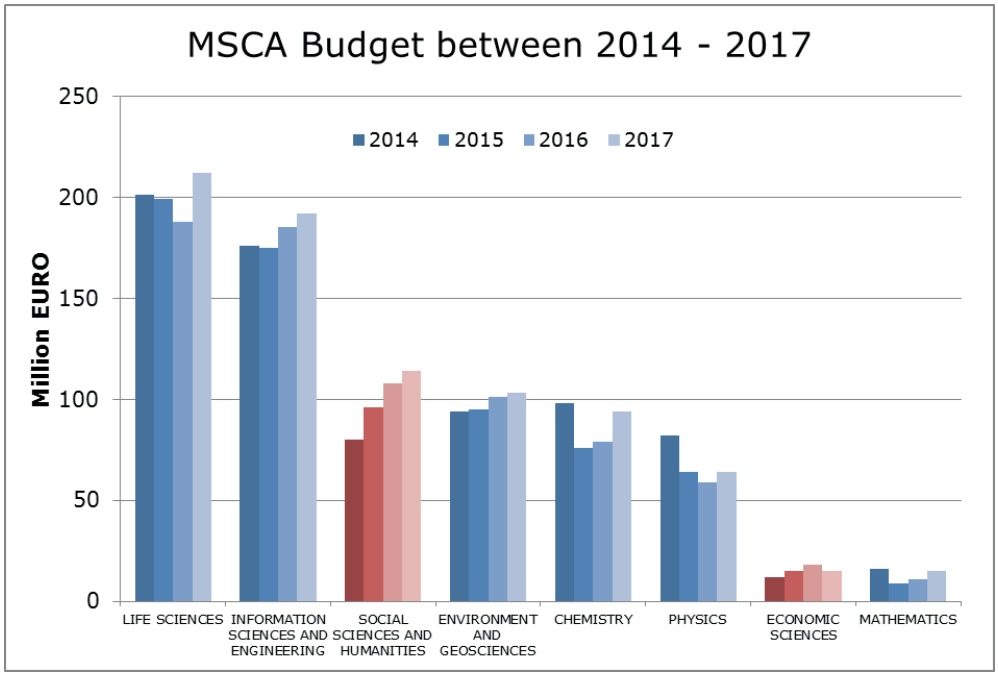
### 7.3.3. Budget

Of the total project budget about 458 million euro or 15% of the total went to SSH. Over the course of 2014 to 2017 both the absolute amount and the share of the budget going to SSH increased, from 12%[18] in 2014 to 16% of the total budget in 2017. The economic sciences budget remains stable at 2%, broadly in line the number of projects. The social sciences and humanities budget however, went up from 11% in 2014, to 13% in 2015, and 14% of the total budget in both 2016 and 2017.

| Distribution of budget per scientific panel, in million Euro | | | | | |
|---|---|---|---|---|---|
| | **2014** | **2015** | **2016** | **2017** | **Total** |
| LIFE SCIENCES | 201 | 199 | 188 | 212 | 800 |
| INFORMATION SCIENCES AND ENGINEERING | 176 | 175 | 185 | 192 | 728 |
| **SOCIAL SCIENCES AND HUMANITIES** | 80 | 96 | 108 | 114 | 398 |
| ENVIRONMENT AND GEOSCIENCES | 94 | 95 | 101 | 103 | 393 |
| CHEMISTRY | 98 | 76 | 79 | 94 | 347 |
| PHYSICS | 82 | 64 | 59 | 64 | 269 |
| **ECONOMIC SCIENCES** | 12 | 15 | 18 | 15 | 60 |
| MATHEMATICS | 16 | 9 | 11 | 15 | 51 |
| **Total** | **759** | **729** | **749** | **809** | **3046** |

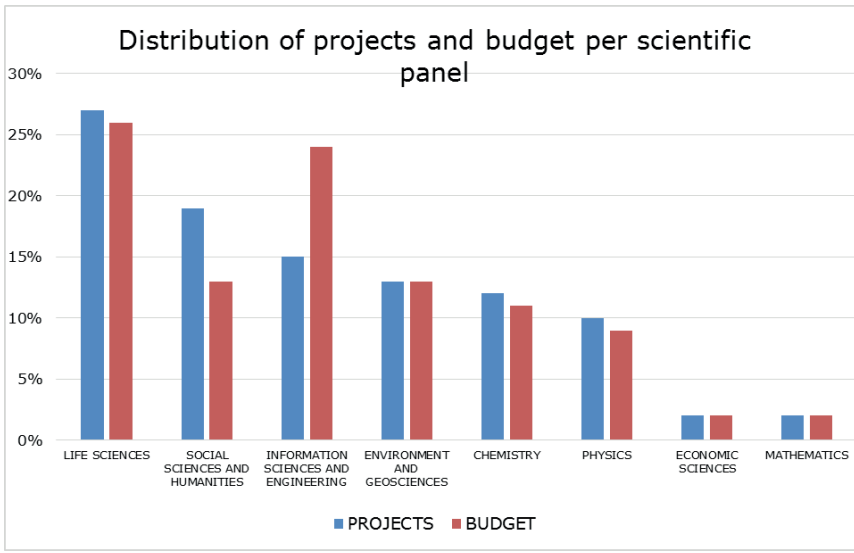



18 Due to the rounding of numbers, sums may not always add up perfectly.




## 7.4. Comparing Budget and Projects

The social sciences and humanities panel is the second biggest panel considering the number of projects, and third when looking at the distribution of budget. The panel received the same share of funding, as did the environment and geosciences panel, even though environment and geosciences have significantly less projects. In fact, social sciences and humanities are an exception, in that they are the only field with a smaller portion of the budget than share of the projects. The economic sciences receive the same share of funding as the share of projects.



## 7.5. Sectors[19]

Within SSH participations the higher education establishments (HES) were consistently best represented across all three actions, with 89%, 43%, and 60% of SSH participations, respectively. Private for-profit companies (PRC) are second best represented in SSH participations with 15% of all participations, ahead of research organisation (REC) with 9%, other entities (OTH, with 5%) and public bodies (PUB, 2%).

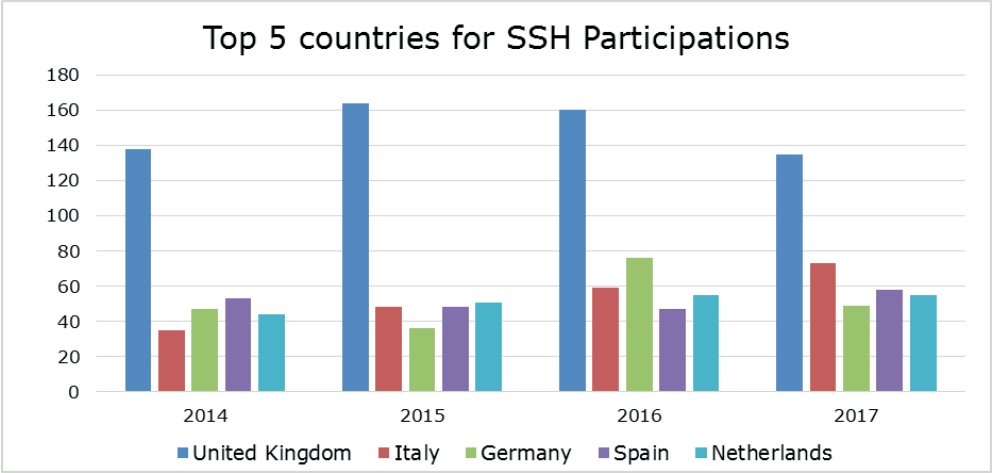
| Sectors of SSH participations | | | | | | |
|---|---|---|---|---|---|---|
| | **HES** | **OTH** | **PRC** | **PUB** | **REC** | **Total** |
| **MSCA-IF** | 1194 | 11 | 7 | 4 | 130 | 1346 |
| **MSCA-ITN** | 343 | 41 | 302 | 24 | 82 | 792 |
| **MSCA-RISE** | 405 | 88 | 107 | 17 | 54 | 671 |
| **Total** | 1942 | 140 | 416 | 45 | 266 | **2809** |

## 7.6. Countries of participating SSH institutions

When comparing the most represented countries in SSH participations, it is clear that especially the major EU-15 countries are most successful in their applications for SSH MSCA-grants. Most participating institutions are from the UK with 21% (out of a total of 2809 SSH participations)[20], before Italy (8%), Germany, Spain and the Netherlands, all three with 7%. Together, these 5 countries received a c. 50 % share of the budget going to SSH Marie Skłodowska Curie Actions.

| Countries of SSH participants | | | | | |
|---|---|---|---|---|---|
| | **2014** | **2015** | **2016** | **2017** | **Total** |
| **United Kingdom** | 138 | 164 | 160 | 135 | 597 |
| **Italy** | 35 | 48 | 59 | 73 | 215 |
| **Germany** | 47 | 36 | 76 | 49 | 208 |
| **Spain** | 53 | 48 | 47 | 58 | 206 |
| **Netherlands** | 44 | 51 | 55 | 55 | 205 |

19 Sectors are self-declared by the participants.
20 It is worth mentioning that the strong position of the UK is mainly due to IFs, in comparison to ITN and RISE actions




## 7.7. Most Represented Participants

The table below gives an overview of the 10 most represented participants in terms of SSH, of which five are UK higher education institutions.

| Best Performing SSH Participants | Country | Participations |
|---|---|---|
| Kobenhavns Universitet | DK | 51 |
| The Chancellor Masters and Scholars of the University of Cambridge | UK | 38 |
| The Chancellor, Masters and Scholars of the University of Oxford | UK | 38 |
| University College London | UK | 36 |
| Universiteit van Amsterdam | NL | 31 |
| Universita Ca'Foscari Venezia | IT | 30 |
| University of York | UK | 25 |
| Centre National de la Recherche Scientifique (CNRS) | FR | 24 |
| University of Leeds | UK | 23 |
| Katholieke Universiteit Leuven | BE | 22 |

Good practice example:

| | |
|---|---|
| **PROJECT**<br><br>**IPBMNES - Integrated Pedestrian Behaviour Modelling under Normal and Evacuation Situations.** | In order to understand the nature of complex and collective dynamics of pedestrians during normal and evacuation situations, mathematical models and simulation tools are essential. Pedestrian behaviour is the result of a series of interdependent decisions which are based on a specific (latent) plan. However, in state-of-the-art pedestrian flow models, the latent plans and some observed actions are ignored. This leads to an unrealistic representation of individual pedestrian movements and collective crowd dynamics. In order to overcome this issue, a framework for integrated pedestrian behaviour modelling based on the concepts of a short-term plan and action, is proposed. This framework integrates the following sub-models: Target Destination Choice Model, Pedestrian Route Choice Model, Pedestrian Pace State Model, and a Pedestrian Movement Model. It captures pedestrians' planning capabilities and interdependent decisions. The above behavioural models will be incorporated in the traffic simulator, MovSim (Multi-model open-source vehicular-traffic Simulator developed by Technical University Dresden -TUD) to simulate the normal and evacuation pedestrian environment. This tool will be useful to develop guidelines for local authorities and organizers of mass events in larger cities of Europe and for designing the pedestrian facilities.<br>More on:<br>http://ec.europa.eu/research/infocentre/article_en.cfm?artid=49556 |

# 8. SOCIAL SCIENCES AND HUMANITIES (SSH) IN RESEARCH INFRASTRUCTURES (RIS)

Below are some key data on the Social Sciences and Humanities (SSH) in the Research Infrastructures (RIs). DG RTD unit – Research Infrastructure, has provided the data and this chapter is meant to complement the information on SSH in pillar 1 of the Horizon 2020 Programme.

## 8.1. Definitions and types of infrastructure

The term 'research infrastructures' (RIs) refers here to facilities, resources or services of a unique nature that have been identified by European research communities to conduct top-level activities in all fields of science.

This definition of research infrastructures, including the associated human resources, covers major equipment or sets of instruments, in addition to knowledge-containing resources such as collections, archives and data banks.

RIs of European (and international) interest may be:

- «single-sited» - geographically localised unique facilities whose governance is fundamentally European (or international) in character,
- «distributed» – formed by national and/or institutional nodes, which are part of European (or global) network of distributed resources and whose governance is fundamentally European (or international) in character,
- and «national RIs», with unique capabilities, that attract wide interest from researchers outside of the host nation.

The European Research Infrastructure landscape encompasses the following:

- Intergovernmental RIs: well established RIs supported by the member states,
- New Pan-European RIs: RIs listed in the European Strategy Forum on Research Infrastructures (ESFRI) Roadmap[21],
- Networks of National RIs: Networks of national and regional RIs open to all European researcher from both academia and industry. These networks of RIs are promoted by the European Commission through Integrating Activity (IA) projects.

## 8.2. The RIs funded under Horizon 2020

The main aim of the Horizon 2020 programme is to develop the European RIs for 2020 and beyond through the following: developing new world-class RIs, integrating and opening national and regional RIs of European interest, deployment and operation of ICT based e-Infrastructures, fostering the innovation potential of RIs and their human resources, reinforcing European RI policy and international cooperation.

21 More on www.esfri.eu/

In terms of SSH there are two key areas of financing - H2020 Work Programmes (WP): 2014-16 and 2016-17:
financial support to RIs for Social Sciences and (table 1) in the amount of 35.585.586 EUR
support to RIs for Art, Culture and Cultural Heritage as well as Humanities (table 2) in the amount of 45.584.000 EUR.

Therefore, the overall funding for SSH related infrastructure stood at 81.169.586 EUR for the period 2014-17. As the total budget for RIs regarding WP 2014-15 and WP 2016-17 amounted to 1.198.480.000 EUR, hence the SSH related share stood at c. 6.7 % of the general RI expenditure from Horizon 2020.

**Table 1: financial support to RIs for Social Sciences (2014-17)**

| Project number | Project Name | Project Title | Type[21] | Start Date | End Date | Duration [22] | EC Contribution |
|---|---|---|---|---|---|---|---|
| 676536 | SHARE-DEV3[23] | Achieving world-class standards in all SHARE countries | IP | 01/07/2015 | 30/06/2018 | 36 | 5.493.328 |
| 654221 | SERISS | Synergies for Europe's Research Infrastructures in the Social Sciences | Cluster | 01/07/2015 | 30/06/2019 | 48 | 8.494.397 |
| 674939 | CESSDA-SaW[24] | Strengthening and widening the European infrastructure for social science data archives | IP | 01/08/2015 | 31/07/2017 | 24 | 2.498.187 |
| 676166 | ESS-SUSTAIN[25] | European Social Survey Sustainability | IP | 01/10/2015 | 31/03/2018 | 30 | 2.367.888 |
| 739511 | GGP-EPI | Generations and Gender Programme: Evaluate, Plan, Initiate | EP | 01/01/2017 | 31/12/2019 | 36 | 1.996.668 |

22 There are different types of actions supported: Cluster, Integrating Activity (IA), Preparatory Phase (PP), Integrated Project (IP), Design Study (DS), and Emerging Project (EP).
23 Duration in months.
24 Part of the 2018 ESFRI Road-Map update.
25 Idem.
26 Idem.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 730998 | InGRID-2 | Integrating Research Infrastructure for European expertise on Inclusive Growth from data to policy | IA | 01/05/2017 | 30/04/2021 | 48 | 9.349.518 |
| 777449 | ECDP | European Cohort Development Project | DS | 01/01/2018 | 30/06/2021 | 18 | 2.000.000 |
| 777489 | EURHISFIRM | Historical high-quality company-level data | DS | 04/01/2018 | 31/03/2021 | 36 | 3.385.600 |
| **TOTAL** | | | | | | | **35.585.586** |

**Table 2: financial support to RIs for Art, Culture and Cultural Heritage as well as Humanities (2014-17)**

| Project number | Project Name | Project Title | Type[21] | Start Date | End Date | Duration [22] | EC Contribution |
|---|---|---|---|---|---|---|---|
| 654028 | IPERION CH | Integrated Platform for the European Research Infrastructure on Cultural Heritage | IA | 01/05/2015 | 30/04/2019 | 48 | 8.000.000 |
| 654119 | PARTHENOS | Pooling Activities, Resources and Tools for Heritage E-research Networking, Optimization and Synergies | Cluster | 01/05/2015 | 30/04/2019 | 48 | 12.000.000 |
| 654164 | EHRI[26] | European Holocaust Research Infrastructure | IA | 01/05/2015 | 30/04/2019 | 48 | 8.000.000 |
| 675570 | HaS-DARIAH[27] | Humanities at Scale: Evolving the DARIAH-ERIC | IP | 01/09/2015 | 31/08/2017 | 28 | 2.000.000 |
| 676529 | CLARIN-PLUS[28] | Strengthening the CLARIN Infrastructure. | IP | 01/09/2015 | 31/08/2017 | 24 | 1.500.000 |
| 731081 | DESIR | DARIAH ERIC Sustainability Refined | IP | 01/01/2017 | 31/12/2019 | 36 | 2.000.000 |

27 Idem.
28 Idem.
29 Idem.
30 Idem.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 739503 | E-RIHS PP[29] | The European Research Infrastructure for Heritage Science Preparatory Phase | PP | 01/01/2017 | 31/12/2019 | 36 | 4.000.000 |
| 731015 | ELEXIS | European Lexicographic Infrastructure | IA | 01/02/2018 | 31/01/2022 | 48 | 5.000.000 |
| **730895** | **ReIReS** | **Research Infrastructure on Religious Studies** | **IA** | **01/02/2018** | **31/01/2021** | **36** | **3.084.000** |
| **TOTAL** | | | | | | | **45.584.000** |

## 8.3. RIs under the ESFI Road Map and ERICs

ESFRI (the European Strategy Forum on Research Infrastructures), was set up by the EU Council of Research Ministers in 2002 comprising Representatives of Member States, Associated States, and of the European Commission. Its aim is to support the development of a European policy for Research Infrastructure and discuss a long-term vision at European level. It was mandated by the EU Council of Research Ministers of November 2004 to develop a strategic roadmap 2006 and its updates in 2008, 2010, and 2016 as well as 2018 identifying new pan-European Research Infrastructures or major up-grades to existing ones[31].

ERIC is the European Research Infrastructure Consortium established by Council Regulation (EC) No 723/2009 of 25 June 2009, amended by Council Regulation No 1261/2013 of 6 December 2013. It is a legal instrument at EU level, to facilitate the joint establishment and operation of RI of European interest. It has legal personality recognized in all Member States and includes a lighter process than creating a treaty based international organisation. It qualifies as an international organization for the purposes of VAT (exemption under certain limits and conditions from VAT and excise duties) and Public Procurement Directives. The Commission has awarded this status to 19 ERICs: SHARE, CLARIN, EATRIS, BBMRI, ECRIN, ESS, EURO-ARGO, CERIC, DARIAH, JIV, European Spallation Source, ICOS, EMSO, LifeWatch, CESSDA, ECCSEL, INSTRUCT, EMBRC and EU-OPENSCREEN. The second Report on the Implementation of the ERIC Regulation was presented by the Commission to the Parliament and the Council in 2018.

The ESFRI 2018 Road-Map update comprises the following infrastructure related to SSH under Social and Cultural Innovation:

- Two ESFRI Projects: E-RIHS - European Research Infrastructure for Heritage Science and EHRI - European Holocaust Research Infrastructure.
- Five ESFRI Landmarks (ERICs): CESSDA ERIC Consortium of European Social Science Data Archives, CLARIN ERIC Common Language Resources and Technology Infrastructure, DARIAH ERIC Digital Research Infrastructure for the Arts and Humanities, ESS ERIC European Social Survey, SHARE ERIC Survey of Health, Ageing and Retirement in Europe.

31 More on http://roadmap2018.esfri.eu/media/1060/esfri-roadmap-2018.pdf

Good practice example:

| | |
|---|---|
| **PROJECT**<br><br>**EHRI - European Holocaust Research Infrastructure**[31] | The European Holocaust Research Infrastructure (EHRI) is a new pan European distributed RI that supports the Holocaust research community. It provides access to information about dispersed sources, and develops tools and methods that enable researchers and archivists to collaboratively work with such sources. It thereby seeks to overcome the wide dispersal of sources across Europe and beyond, and the concomitant fragmentation of Holocaust historiography. By integrating sources and research, EH RI enables the study of the Holocaust as a European phenomenon.<br>By bringing together experts from different fields (e.g. research institutions, libraries, archives, museums and memorial sites), and by building an innovative digital infrastructure supported by a large community, EH RI is a flagship project that showcases the opportunities for historical research in the digital age.<br>More on www.ehri-project.eu |

32 Idem.

# CONCLUSION AND WAY FORWARD

This report gives a comprehensive overview on the integration of social sciences and humanities (SSH) in the topics of the Horizon 2020 calls for proposals of 2017.

The obligation to integrate social sciences and humanities (SSH) expertise in relevant scientific projects and to monitor the quality of their integration in Horizon 2020 is a major step forward in cross- sectoral co-operation in European research of which SSH integration is a precursor. Over the years, this has led to a rather stable level of SSH integration regarding the number and the funding for SSH relevant projects, as well as to a stable level in the quality of SSH integration.

At the same time and based on the experience of monitoring SSH integration over the period 2014-19, the current approach has probably reached its limits in the quantity and quality of SSH integration.

Therefore, the way in which SSH should be integrated will have to be redefined for the Horizon Europe Programme, in a clearer and more concrete way, with a view to increasing its tangible impact. For topics that have been identified as SSH relevant, the so called 'SSH flagged topics', SSH expertise should be integrated in a meaningful and binding way. This should apply from the drafting of the calls and their topics, the preparation of conceptual proposals for projects, the setting up of project consortia, to the selection and evaluation of projects by evaluators with clear SSH expertise. In addition, the expected societal impact must be explicitly set out in the topics of the calls for proposals as well as in project proposals and their implementation reports.

The findings from the Horizon 2020 SSH integration reports will have a significant influence on the new approach to SSH integration and societal impact in the Horizon Europe Programme. Their impact on the reporting on the remainder of the current programme will remain, however, limited. This is due to the fact that the calls for the last year of its running period (2020) are presently being finalised and the implementing rules for the current programme can only be changed to a very limited extent.

As a general rule, SSH integration will have to follow a more holistic approach covering the entire cycle from co-creation and co-design, to the selection and implementation of projects. The earlier SSH expertise is integrated in a project - not merely as an add-on element - but as a core element, the more impact it can create. New methodologies to assess the quality of SSH integration and what effectively makes the difference between SSH as an add-on or as a core element will be explored.

The widened scope of the current report which covers, in addition to its core activities, namely the SSH integration in the pillar of societal challenges, also the European Research Council, Future Emerging Technologies, Maria Skłodowska-Curie Actions and Research Infrastructures, shows the wide spectrum of SSH activities in the Horizon 2020 Programme and the considerable budget allocated to it.

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Monitoring the development of SSH as a cross cutting issue is a commitment made under the Horizon 2020 Programme. To do that, a variety of dimensions are examined, such as budget going to SSH partners (overall and per Work Programme part), qualitative aspects, performance of disciplines and sectors involved and countries participating both as participants and coordinators.

A novelty introduced in this year's report is a number of new chapters summarising the results for both pillar 1 (European Research Council (ERC), Maria Skłodowska-Curie Actions (MSCA) and Research infrastructures (RI), as well as Future Emerging Technologies (FET)) and 2 (Societal Challenges) of the programme regarding SSH and inter-disciplinarity. The scope of the report has therefore gradually been extended: ERC data is available since last year's edition and since this year MSCA, RI, and FET are also covered, while developing a methodology best suited to look at these findings in a meaningful way.

This fourth Monitoring Report on Integration of SSH across Horizon 2020 shows that on many aspects progress has been made since the start of the programme. However, it also illustrates that more efforts are needed to get the results strived for in this policy area. Altogether the quantitative data presented by this publication indicate how well the policy of SSH Integration is being followed up in practice. But it is by no means a report that tells the full story of SSH Integration as part of the overall framework programme.

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