Humanities Scientific Committee Opinion Paper

The Human Factor in the 2014–2015 Work Programme of the Horizon 2020 Societal Challenges

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SCIENCE EUROPE

Humanities Committee

▶ Introduction

Since its inauguration in early 2013, the Science Europe Scientific Committee for the Humanities has strongly supported Horizon 2020's third pillar, Societal Challenges[1]. The Committee realises the importance of the issues addressed, and the urgent need to find solutions to these pressing questions. The Committee is therefore committed to making the Challenges-approach successful.

It is for this reason that the Committee perceives two pre-conditions as being essential to the ultimate success of the Societal Challenges: (i) the integration of the human factor at all stages of research and research policy development, and (ii) the evolution of research processes that stimulate innovation in response to these major challenges. For, as we have argued in the Opinion Paper *Humanities and Social Sciences in Horizon 2020 Societal Challenges: Implementation and Monitoring*[2], addressing the Societal Challenges will mean moving beyond systems of incremental development to stimulate what might be called 'deep change' and 'radical innovation' — both processes being intrinsic to research across the social sciences and humanities (SSH). Not only will we need to find radically new approaches to the development and application of technological or social processes but also better understand the changes they bring to people's behaviour, pervasive values, cultures of practice and modes of communication. Since researchers in SSH have the expertise to analyse and understand deep change and to find radical innovations they must play a vital role in addressing the Societal Challenges and, in the process, assure Europe's international competitiveness. Accordingly, SSH must be integrated into all stages of the research process.

The importance of such a full and systematic integration of SSH throughout the Societal Challenges has also been highlighted by the European Commission – including Commissioner Geoghegan-Quinn herself[3] – prior to the launch of Horizon 2020. **The aim of this paper is to investigate the extent to which the current Work Programme for the Challenges (2014–2015) facilitates this integration**. In this, we will focus in particular on the humanities. In a separate publication, we plan to concentrate more on the innovation agenda that underpins all of the Challenges and to which SSH has a great deal to contribute.

▶ How the Humanities are Contributing to the Societal Challenges

The humanities cover a wide-ranging and dynamic field of disciplines. These include long-standing and well-known disciplines such as philosophy, history, archaeology and linguistics as well as some of the most promising emerging scientific areas, for example medical humanities and media studies. The humanities also include performing arts and design. Notwithstanding their great diversity in research cultures, approaches and methodologies, what all humanities disciplines have in common is that they bring about a deeper understanding of ourselves by addressing questions such as: How do we make sense of ourselves and the world around us? How do we communicate and organise our interactions? And how does that influence our actions?

It cannot be emphasised enough that the humanities disciplines are making a significant impact on all the Societal Challenges included in Horizon 2020. In the brochure *Humanities in the Societal Challenges: 12 Compelling Cases for Policymakers[4],* a number of cases have been spelled out. These demonstrate, for example, how methodologies derived from linguistics have helped to create a cost-effective instrument to improve the diagnosis of patients with epileptic seizures. To give another example, re-thinking 'waste' as a resource, rather than just 'junk', is transforming how the construction industry approaches waste disposal, thereby significantly reducing the amount of waste. Or, to mention a further case, research on historical and environmental archives has helped to predict future ocean resilience, prompting fisheries agencies around the world to use historical evidence in the development of management strategies.

▶ To what Extent are the Humanities Being Called Upon in Horizon 2020?

The aforementioned research projects were all carried out prior to the launch of Horizon 2020, and were funded by national research grants. We now turn to the question of the extent to which room exists for projects such as these in the first Work Programme of Horizon 2020, adopted in December 2013 to cover the period 2014–2015.

▶ Budget Figures

First, we look at the numbers. The document *Opportunities for Researchers from the Socio-economic Sciences and Humanities[5]*, contains an analysis of SSH-relevant Topics in Horizon 2020 that has been carried out by Net4Society, the EC-funded network of National Contact Points for SSH. We take this independent analysis as the basis for our investigation, providing us with an indication of which Topics count as SSH-relevant. The related figures may serve as a reasonable proxy to answer the question of the extent to which SSH has been 'mainstreamed' throughout the Challenges. As the issue of 'mainstreaming' SSH does not apply to Challenge 6 - Europe in a changing world: Inclusive, innovative and reflective societies, this Challenge is not included in the analysis.

> **Calculating the budgets related to the Topics flagged in this document – details of which can be found in Annex 1 – we find that Topics that have opened up to SSH amount to:**
> - 32.9% of Challenge 1 – Health, Demographic Change and Wellbeing
> - 30.1% of Challenge 2 – Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bio-economy
> - 24.5% of Challenge 3 – Secure, Clean and Efficient Energy
> - 16.8% of Challenge 4 – Smart, Green and Integrated Transport
> - 30.7% of Challenge 5 – Climate Action, Environment, Resource Efficiency and Raw Materials
> - 25.1% of Challenge 7 – Secure Societies: Protecting Freedom and Security of Europe and its Citizens

Taken together, it turns out that only 26.7% of the Topics under the Challenges explicitly invite contributions from SSH. We conclude that **SSH has *not* been embedded in almost 75% of the Societal Challenges.**

It should be noted that the humanities are even less embedded than SSH as a whole. For the above statistics we rely on Net4Society's analysis, so as to avoid any possible bias on our part. This analysis concerns the position of SSH – rather than the humanities – in the Challenges. We have subsequently revisited the Work Programme with a specific eye on the humanities; a conservative estimate is that the humanities are addressed in about a third of the SSH-flagged Topics. This result demonstrates that **the humanities are *not* embedded in over 90% of the Challenges.**

▶ Qualitative Characterisation

Next, we turn to a qualitative characterisation of the types of humanities research that are addressed in the Work Programme.

Overall, it seems fair to say that the humanities disciplines that are called upon most frequently in the Work Programme are those that concern **human behaviour.**

Examples of such Topics can be found in almost all Challenges. By way of illustration, we mention only a few. 'Promoting mental wellbeing in the ageing population' (PHC 22 – Challenge 1) invites proposals to include a dimension of research into psychological, environmental and social determinants of healthy ageing including socio-cultural stressors like loneliness, poverty and conflicts. 'Consumer engagement for sustainable energy' (EE 10 – Challenge 3) explicitly calls for proposals that focus on changing the behaviour of consumers in their everyday life. 'User behaviour and mobility patterns in the context of major societal trends' (MG.9.2 – Challenge 4) aims for a better understanding of the role of user behaviour in mobility patterns. 'Internet forensics to combat organised crime' (FCT-4 – Challenge 7) invites proposals to tackle all layers of analysis, from the data-packet level to data mining, language interpretation, semantic analysis and information retrieval, including the multi-lingual aspects, and video and picture analysis.

This reference to behaviour is double-edged. On the one hand, it offers potential for opening up the formulation of research questions in a direction that takes into account socio-cultural practices, and actual actions of human actors in 'real life'. On the other hand, the kind of behavioural research that is invited by the current Work Programme tends to erase precisely the interpretive, culturally shaped, historically emergent way in which these practices are variably configured. The difference in vocabulary between behaviour (more inclined towards deterministic accounts) and 'action' or 'practice' is significant in this regard.

This latter point is reflected by the fact that the Work Programme is to a much lesser degree concerned with people's deep-seated preconditions for behaviour, namely **sense-making, interaction and culturally embedded values or attitudes**.

One of the few positive examples to the contrary is Topic LCE 20 'The human factor in the energy system' (Challenge 3). This Topic explicitly starts from the assumption that "Managing

the transition to a more sustainable energy system is a challenging task, going beyond mere technological aspects. Consumers' and other actors' awareness, attitudes, risk perception, consumption behaviour and investment decisions have a strong influence on the development of our energy system." These factors therefore have to be explored in the proposals submitted under this Topic. Also under Challenge 3 is Topic EE 10: 'Consumer engagement for sustainable energy'; this invites more fundamental activities aimed at a better understanding of consumers' and other stakeholders' perception, motivation and behaviour, for example understanding of product labels and building certificates. The Committee is happy to see that these two Topics have taken the need for a 'deep change' seriously. They serve as an illustration that Topics may indeed be formulated in such a manner as to address these more fundamental issues.

Unfortunately, there are very few such examples to be found in the Work Programme. In this respect, it is important to note that even in cases where 'the human factor' is explicitly mentioned, the actual interpretation of what that entails is unusually – and unnecessarily – narrow. A point in case is Topic DRS-14-2015 'Critical infrastructure protection' (Challenge 7), which states: "A holistic approach to the resilience of critical infrastructure should be followed, addressing a broad variety of issues including human factors (i.e. radicalisation)". By narrowing the human factor in this way, this Topic takes a very exclusive view on the bearing of the human factor on the topic of resilience. Similarly, proposals under Topic PHC-22: 'Promoting mental wellbeing in the ageing population' (Challenge 1) may address the role of determinants of mental health, including "socio-economic stressors (e.g. loneliness, poverty, violence, trauma and conflicts) or other physical and environmental stressors." In doing so, this Topic reduces socio-cultural conditions to 'stressors' without recognising that these are at the same time *enabling* factors (socio-cultural dimensions can provide for solidarity, security, care-taking, diversity of coping strategies, and so forth).

Overall, the Topics thus phrased read as if they are all a variation on the same theme. They have all been written with a particular focus on certain dimensions (most notably technology, and in particular ICT) while neglecting others (including a cultural and historical perspective). For example, the diversity of cultural visions in what is considered to be illness and health, as well as the various ways these notions are implemented and situated in actual practices, might play a key role in managing bottom-up health initiatives in different social settings. However, there are no opportunities under Challenge 1, 'Health, Demographic Change and Wellbeing', to investigate this further. Instead, more than a dozen Topics under this Challenge call for proposals that will further the use of ICT for monitoring, administrating, self-managing or otherwise supporting patient care. This appears to be an overemphasis on one specific aspect of the Health Challenge. We note that this has also been recognised by the medical community: in a letter to Commissioner Geoghegan-Quinn dated 1 October 2013,[6] four major public health scientific associations in Europe wrote that the Work Programme for Challenge 1 is too narrowly focused on biotechnology and personalised medicine and contains large gaps for research into factors such as poverty, the environment, diet and exercise. They write: "This prioritisation is not coherent with the main health challenges of Europeans, nor understandable given the context. Personalised medicine and biotechnology represent important areas for health research but they cover a very narrow part of research conducted in Europe and fail to deliver solutions to the major public health problems in Europe." We feel that this constriction is systematically reproduced throughout the Work Programme and that this conclusion – *mutatis mutandis* – equally holds for the other Challenges.

Finally, the Work Programme hardly refers at all to **cultural and historical dimensions**.

This aspect is perhaps most clearly illustrated by the Call on 'Digital Security: Cybersecurity, Privacy and Trust' (Challenge 7). While ethical and cultural underpinnings are obviously central to the issues at hand, none of the five Topics under this Call take such a perspective into account. For example, the potentially most relevant Topic 'DS-1 – Privacy' invites actions that are to provide a "practical, user friendly and economically viable implementation of the legal obligations related to personal data processing". It is difficult to see in this text an awareness of the ethical or cultural aspects.

Another example is Challenge 2. While the issue of 'Food' is deeply embedded in cultural practices, no reference is made to culture in any of the 20 Topics under the Call for 'Sustainable Food Security'. As a more specific example, let us consider one of the Topics under this Call: 'SFS 7: Genetic resources and agricultural diversity for food security, productivity and resilience'. Proposals under this Topic should show how "impact will be achieved on the broader adaptation of livestock and cultivated plants to changing agro-climatic conditions, e.g. by enhancing robustness through the use of adaptive traits from landraces and local breeds". In this case, it is first and foremost necessary to identify the historically local breeds. However, there is no scope under this Topic for research addressing this fundamental issue.

Finally, we would like to add that it is of course possible for humanities scholars to approach the Topics with imagination, to think out-of-the-box, and to interpret the texts in such a way that their work would be relevant. However, before humanities researchers can be encouraged to take such an approach, a certain risk-mitigation would need to be put in place. In particular, it would be necessary to spell out in the assessment criteria and in the communication to the evaluators that such a figurative reading of the Work Programme is appreciated. Needless to say, this would not only hold for humanities, but equally for all other fields.

▶ Embedded or at the Table?

In the aforementioned paper *Humanities and Social Sciences in Horizon 2020 Societal Challenges: Implementation and Monitoring*, we wrote that: "Too often, SSH research is still seen as having a translational role – for example as investigating the reception of technological innovation among the public, or translating scientific results and improving their acceptance among sceptical audiences, or supplementing fundamental, causal explanations with some cultural finesse. Notwithstanding the importance of these roles, this is a simplistic view, as SSH research has demonstrated a more crucial role in understanding the complexity of the world we live in" (page 2).

Unfortunately, the 2014–2015 Work Programme has a tendency to display exactly this simplistic view. This has, for example, been strikingly expressed in 'BG-13 Ocean literacy – Engaging with Society – Social Innovation' (Challenge 2). This Topic aims to promote 'ocean literacy' and hereto invites projects to "Compile existing knowledge. Information collected should be turned into communication material, to be used for dissemination and engagement with societal stakeholders and public at large". This is a textbook example of how dissemination should *not* be practised.

This ancillary role of humanities – as commentators and facilitators, after the event, of research processes that are seen to occur without them – *de facto* relegates humanities to a marginal role beyond research proper. An alternative view would be to acknowledge humanities resources as key to obtaining the stated research objectives and to consider how the humanities can illuminate 'constitutive' processes characterising the fields of medicine, climate change, food, transport, energy, and so on. To this end, the humanities should be integrated into the projects from the outset.

Some Topics have taken the effort to integrate the human factor in a meaningful way. A good example is 'EE3: Energy strategies and solutions for deep renovation of historic buildings' (Challenge 3), which aims to reduce fragmentation in this sector through fostering a more interdisciplinary approach. However, this is one of few such examples. In general, proposals are not invited to integrate the humanities as a scientific resource. Even in Topics where reference is made to 'holistic' and 'multi-disciplinary' approaches – as happens recurrently – the implications are usually not spelled out in the substantive project requirements. For example, the challenge description under 'PHC4: 'Health promotion and disease prevention' (Challenge 1) makes it clear that what is required is a "multi-sector approach that aims to improve health by addressing such factors as housing; water and sanitation systems; transportation; exposure to chemicals; communication, education and information; occupational factors, physical activity, food production and distribution, and the physical, natural and social environments". This would have been an excellent example of the integration to which we aspire. However, when it comes to the practical project requirements, the text continues that "Given the breadth of sectors, the scope of this topic is limited to the integration of environment, climate and health sectors". In other words, the human factor that was paid lip service in the general description of the challenge, is excluded from the proposals that are invited.

We had already recommended in the earlier Opinion Paper: "Of particular importance is the formulation of joint research questions. These have to be clearly spelled out at the level of proposals". This is notably absent from the current Work Programme.

Summarising the evidence presented so far, we see that although the humanities have important resources to offer to all of the Challenges, in the 2014–2015 Work Programme room exists for only a very limited contribution. Limited, that is, both in terms of quantity (over 90% of the Topics are in effect *not* open to the humanities) and quality (the range of humanities disciplines and themes being called upon in the Work Programme is narrow and relevant fields are left out). Finally, the humanities are mostly seen in a 'translational role' and are not integrated at all stages of the research process. **We conclude that the actual role of the humanities in the 2014–2015 Work Programme is marginal in quantity as well as quality.**

▶ Actions for Change

It has been acknowledged by European Commission representatives on various occasions that the Challenges are not 'business as usual'. However, as demonstrated, the first Work Programme has been exactly this: business as usual. As we have concluded above, this approach has not been successful. To remedy this situation, we propose the following coherent portfolio of actions:

1. **Humanities should be integrated into the Advisory Groups.** The establishment of the Advisory Groups should follow the parity principle. Currently, 14% of all members of Horizon 2020 expert groups have a background in SSH.[7] In particular, scholars from the humanities should be integrated into the Advisory Groups for all Challenges. The Chairs of the Advisory Groups, supported by the Commission, have responsibility for securing proper integration of all members in the Group.

2. **Topics should harness all possible resources**. The Topic descriptions are generally quite broad, which is something we welcome. However, this openness should also be reflected in the substantive project description that should require, or at least allow for, inclusion of research into social, cultural and historical dimensions where relevant. As an immediate remedy we have urged in our Letter to the Commissioner for Research, Innovation and Science of 22 April 2014 that throughout the 2015 Work Programme, the term 'social' is replaced by 'socio-cultural'. This would allow at least a number of Topics to draw upon a significantly larger pool of resources. However, this should only be seen as a temporary, emergency measure. As from the 2016 Work Programme, social, cultural and historical aspects should be thoroughly integrated throughout the Topics.

3. **Humanities should be fully integrated into research projects**. The human factor should be defined as an interpersonal sense-making practice and prioritised as integral to research. Humanities researchers should be fully integrated into joint research projects from the outset, as equal partners. Of particular importance is their contribution to the formulation of the joint research questions. Therefore, the Work Programme should clearly address the need for proposals to spell out their research questions. This is, furthermore, one of the reasons why it is important to have humanities researchers involved in the Advisory Groups and in the process of defining the Work Programme.

4. **The integration of the human factor should be a criterion in the *ex-ante* project assessment.** Most importantly, the formulation of the joint research questions must have priority in the assessment of proposals where appropriate, and the contribution from all partners to the joint research questions should be assessed. Also, the novelty in the combination of disciplines and methods should be evaluated. This will also help to harness the entire spectrum of humanities resources and as such reinforce Recommendation 2 above.

5. **SSH-relevant Topics should have SSH panellists.** In order to evaluate the meaningful integration of the human factor, proposals under Topics that have been flagged as 'SSH relevant' need to be assessed by panels that include an SSH panel member. Even if

there may be good reasons for a proposal submitted under such a Topic not to have an SSH project member, these reasons need to be assessed by an SSH evaluator. This is why evaluation panels should be of a size that would allow, where relevant, at least one SSH member.

6. **SSH embedding should be part of the *ex-post* evaluation**. A continuous feedback loop should be provided over the course of Horizon 2020, involving the Advisory Groups and Programme Committee, to monitor the integration of the human factor throughout the Societal Challenges. In particular, there is a need to monitor the degree of inter-disciplinarity in the funded projects as well as the results: did the projects come up with different answers than mono-disciplinary research? A longer-term impact assessment should be conducted that will teach lessons for the future.

The above reiterates some of our points made earlier in our Opinion Paper *SSH in Horizon 2020 Societal Challenges: Monitoring and Evaluation,* which remain highly relevant.

It is worth pointing out that the actions we propose will, if adopted, advance the quality of the research results, and hence advance the relevance and applicability of the answers to the Societal Challenges. In addition, the proposed actions will have a profound impact on the research community as a whole, well beyond the field of the humanities or, even, SSH. For example, the recommendation for Topics to harness all relevant resources would not only impact SSH but would lead to an improvement for all scientific disciplines. Similarly, the above recommendation to monitor the integration of the human factor throughout the Challenges would teach us valuable lessons about the implementation of inter-disciplinarity in general.

▶ Implications

If the proposed actions are not adopted, we foresee a grim future for the Challenges.

Foremost, without the proposed actions, the Work Programme will not attract research projects that will create 'deep change': the fundamental changes in our behaviour – and, if appropriate, in our deep-seated convictions and motivations that underlie this behaviour – that are needed to address the Societal Challenges. Instead, the Work Programme would remain geared, as it is at present, towards projects that serve short-term benefits, provide new technologies and aim to bring economic profits. As a consequence, the answers provided to the Societal Challenges would be much less relevant and less useful than could be possible.

In addition, without the proposed actions, we are missing out on an important opportunity. At least since the 5th Framework Programme, the European Commission has been trying to implement inter-disciplinarity in the Work Programmes. This has proven to be very difficult but important lessons have been learned in this process.[8] If we continue to do 'business-as-usual' under Horizon 2020 – as is the case in the current Work Programme – we risk wasting the extensive experiences built up over the last decade and we will miss out on the opportunity of learning from earlier mistakes and doing things differently this time.

On the other hand, if the proposed actions are adopted, the quality of the answers in response to the Challenges can be expected to improve significantly. As we all know, people are resistant to change. However, major changes are needed in order to address the Societal Challenges. If our proposed actions are adopted, there will be a real possibility for breakthroughs and discoveries that will help us to understand and bring about change. These will bring about a better understanding of how people in 'real life' make their decisions and come to their actions. They will improve our understanding of what drives people, and how they have become what they are: how people communicate and miscommunicate; how people perceive themselves and how this underpins their ultimate values; how people learn and how they are motivated; and how cultural and historical backgrounds influence all these processes. Overall, this will lead to an improved understanding of how people can be incentivised for change. Above all, this will lead to a better understanding of how to bring about the fundamental changes in our behaviour that are needed to make progress towards the Societal Challenges. We assert with confidence that if our proposed actions are adopted, the Horizon 2020 programme can leave a long-standing, integrated legacy as an important advance towards resolving the Societal Challenges.

▶ Annex – Budget data

The budget data have been extracted from the Horizon 2020 Work Programme 2014–2015 of 10 December 2013 – except for Challenge 7 where the revised text of 20 March 2014 has been used.

The 'SSH-relevant topics' are those flagged by Net4Society, the EC-funded Network of National Contact Points for SSH in Horizon 2020, in its document *Opportunities for Researchers from the Socio-economic Sciences and Humanities: Analysis of SSH-relevant Topics*, of December 2013.

CHALLENGE 1		CHALLENGE 2		CHALLENGE 3	
SSH-relevant Topics	Budget (in M€)	SSH-relevant Topics	Budget (in M€)	SSH-relevant Topics	Budget (in M€)
PHC 1	54	SFS-1	34	EE 7, 8, 9, 10-2014/15	27 (est)
PHC 4	18	SFS-11	10.5 (est)[9]	EE 12-2014	7 (est)
PHC 5	24	SFS-15, 16	17 (est)	EE 19-2014/2015	17 (est)
PHC 6	15	SFS-18	4.5	LCE 3-2014/2015	65 (est)
PHC 17	48	SFS-19, 20	17	LCE 4, 14-2014/15	40
PHC 19	24	BG-1	20	LCE 5, 6, 7-2015	131.5
PHC 21	21	BG-2	10	LCE 9, 10-2014	46.5 (est)
PHC 22	17	BG-5	2	LCE 20-2014	10.5
PHC 23	30	BG-10	10	LCE 13-2015	10
PHC 24	30	ISIB 1, 3	11	LCE 21-2015	10
PHC 25	20	ISIB-8	3	SCC 2-2014	1
PHC 26	60	**Total**	**139**	**Total**	**319**
PHC 27	15				
PHC 31	6				
HCO 5	9				
HCO 14	1				
HCO 15	1				
Total	**393**				

Total budget CHALLENGE 1		Total budget CHALLENGE 2		Total budget CHALLENGE 3	
	(in M€)		(in M€)		(in M€)
In period 2014	609	In period 2014	260	In period 2014	640
In period 2015	583	In period 2015	201	In period 2015	658
Total	**1192**	**Total**	**461**	**Total**	**1298**

SSH is embedded in 32.9% of CHALLENGE 1

SSH is embedded in 30.1% of CHALLENGE 2

SSH is embedded in 24.5% of CHALLENGE 3

CHALLENGE 4		CHALLENGE 5		CHALLENGE 7	
SSH-relevant Topics	Budget (in M€)	SSH-relevant Topics	Budget (in M€)	SSH-relevant Topics	Budget (in M€)
MG.1.6-2014	1 (est)	WASTE 1-2014	44	DRS 20, 21-2014	12.3 (est)
MG.1.7-2014	1 (est)	WASTE 2-2014	9	DRS 11-2015	10
MG.3.4-2014	12 (est)	WASTE 4-2014/15	8.5	DRS 14, 15, 22-2015	21.6 (est)
MG.3.6-2015	1	WASTE 6-2015	40	FCT 10, 14-2014	14.2 (est)
MG.4.4-2014	19 (est)	WATER 2b-2015	15	FCT 2, 4, 9, 15, 16-2015	24.5 (est)
MG.5.1, 5.2, 5.3-2014	40 (est)	WATER 5c-2015	15	BES 12, 14-2014	13.8 (est)
MG.5.4-2015	9	SC5 3-2014	21	BES 13-2015	4 (est)
MG.5.5-2015	54.5	SC5 5,10,14-2014/2015	13.5 (est)	**Total**	**100.4**
MG.9.1-2015	3	SC5 6, 7-2014/15	35		
MG.9.2, 9.3, 9.4-2014.	5 (est)	SC5 17-2015	20 (est)		
MG.9.7-2014.	0.5	SC5 19b-2015	5		
Total	**146**	**Total**	**226**		

Total budget CHALLENGE 4		Total budget CHALLENGE 5		Total budget CHALLENGE 7	
(in M€)		(in M€)		(in M€)	
In period 2014	579	In period 2014	345	In period 2014	191
In period 2015	288	In period 2015	391	In period 2015	209
Total	**867**	**Total**	**736**	**Total**	**400**

SSH is embedded in 16.8% of CHALLENGE 4

SSH is embedded in 30.7% of CHALLENGE 5

SSH is embedded in 25.1% of CHALLENGE 7

Total Budget Societal Challenges, WP 2014–2015

	Total Budget (in M€)	Budget SSH-relevant Topics (in M€)	Percentage of SSH-relevant Topics (in terms of budgets)
CHALLENGE 1	1192	393	32.9%
CHALLENGE 2	461	139	30.1%
CHALLENGE 3	1298	319	24.5%
CHALLENGE 4	867	146	16.8%
CHALLENGE 5	736	226	30.7%
CHALLENGE 7	400	100.4	25.1%
Total	4954	1323.4	**26.7%**

Conclusion: SSH is embedded in 26.7% of the Challenges.

Notes and References

1. Horizon 2020, the major EU Research and Innovation programme that runs from 2014 to 2020, focuses on three main pillars:

    1) excellent science - to strengthen the Union's world-class scientific excellence and make the Union research and innovation system more competitive,

    2) fostering industrial leadership - to speed up the development of technologies that will support businesses and innovation, and

    3) tackling societal challenges - to respond to the priorities identified in the Europe 2020 strategy. http://www.ec.europa.eu/horizon2020

2. http://www.scienceeurope.org/scientific-committees/Humanities/humanities-publications, November 2013.

3. EU Presidency Conference 'Horizons for Social Sciences and Humanities', 23–24 September 2013, Vilnius.

4. See 2, September 2013.

5. http://www.net4society.eu/, December 2013.

6. http://www.epha.org/IMG/pdf/Research_Programme_letter_Commissioner_Quinn_CLEAN_ok-2.pdf

7. Net4Society 'Report on SSH Integration in Horizon 2020', May 2014, http://www.net4society.eu/

8. NET4SOCIETY Policy Brief 'Pulling it Together, On Interdisciplinary Research Design', July 2013, http://www.net4society.eu/

9. The exact budget for this Topic is not available. Rather, the WP gives an indication for the overall budget of a number of Topics that include SGS-11. The average of this has been used for the present purposes. This applies to all the other examples mentioning '(est)'.

This Opinion Paper has been produced by the Science Europe Scientific Committee for the Humanities

▶ **About the Scientific Committee for the Humanities**

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