



Bilateral Coordination of the Enhancement and Development of S&T Partnerships between the European Union and the United States of America



Name of Report	Report on EU research organizations' participation in US programmes
Number of Deliverable	The current report is not a deliverable but an extra report by BILAT USA 2.0
Work Package	2
Task Leader and contributing partners	IPPT PAN, NCURA, DLR



Table of Content

Executive Summary	3
1. Introduction.....	4
2. Data collection methodology	4
2.1. Limitations.....	5
3. Basic figures on EU participation in US funding programmes.....	5
3.1. US federal sponsors most popular among EU research organizations	7
3.2. US institutions and their outgoing EU subcontracts	10
3.3. Participation of EU countries in US funding programmes.....	11
3.4. European Union research organizations participating in US funding programmes.....	14
4. Conclusion / Implications	15
Annex 1 – Abbreviations - US Federal Sponsors	16
Annex 2 – BILAT Spreadsheet Template - sent with email to institutions	17
Figure A: Distribution of EU subcontracts per US federal sponsor (in absolute numbers).....	7
Figure B: US federal sponsors most popular among EU research organizations (in percentage)	7
Figure C: Subcontracts to EU institutions via HHS subagencies.....	8
Figure D: EU subcontracts via DOD Subagencies	9
Figure E: Subcontracts to EU institutions via NSF Awarding programmes	9
Figure F: Subcontracts via US federal sponsors per EU country	12
Figure G: HHS subcontracts per EU country.....	13
Figure H: DOD subcontracts per EU country	13
Figure I: NSF subcontracts per EU country.....	14
Table 1: Number of subcontracts out to EU organizations by EU country and US Research Federal Sponsor.....	6
Table 2: Number of EU subcontracts per US federal sponsor.....	10
Table 3: Top US institutions in terms of the number of EU subcontracts.....	11
Table 4: Top 10 EU countries in terms of the number of subcontracts	12
Table 5: Top 15 EU organizations in terms of the number of subcontracts via US federal	14

Executive Summary

The main objective of BILAT USA 2.0 is to strengthen and further develop the S&T cooperation between the European Union and the United States of America. One of the main tasks of the project is the monitoring of EU-US S&T cooperation. It includes data collection and analysis of US participation in FP7 and Horizon 2020 and of EU participation in US national funding programmes/projects, as well as a list of participants who benefit from federal funds.

The current report presents the results of an analysis based on data regarding project-related subgrants by US institutions, which were granted to EU organizations in the period of 2009–2013. The information provided in the report was gathered through a survey conducted by the BILAT USA 2.0 partner NCURA, while the final report was prepared by the IPPT PAN and DLR. BILAT USA 2.0 received data on 773 total subcontracts given to EU organizations from 23 different EU countries, via 17 US federal sponsors.

According to the data received the biggest federal sponsor with respect to EU subcontracts is the Department of Health and Human Services (HHS) with 66.5% of all EU subcontracts. The US Department of Defense (DOD) is the second biggest federal sponsor on the list with 12.4%, and the third is the National Science Foundation (NSF), with 7.9% of all EU subcontracts.

According to the results of the survey performed, the EU countries that received the most grants from US federal funding sources are (in declining order) the United Kingdom, Germany, France, Italy and the Netherlands.

Gathering information about EU research organizations' participation in US programmes is rather difficult as this data has historically not been collected on a systematic basis by US funding agencies. In addition, the US research funding landscape is decentralized, i.e., the individual research funding agencies operate rather independently from one another, which make comprehensive data gathering rather difficult.

1. Introduction

One of the main tasks of BILAT USA 2.0 is raising awareness about research and innovation opportunities on both sides of the Atlantic. The project's awareness raising activities are implemented in two ways: on the one hand, the project promotes the EU research and innovation programmes (in particular Horizon 2020) among US researchers and innovators. On the other hand, it is equally crucial to disseminate knowledge about the US funding programmes that are open for EU participation (reciprocity). As a part of the project, monitoring of EU-US S&T cooperation is also conducted. This includes data collection and analysis of participation of the US in FP7 and Horizon 2020 and analysis of participation of organizations from the EU in US national funding sources.

2. Data collection methodology

The main objective of this study is to present the state-of-the-art in EU-US research collaboration funded by means of US funding programmes. It is rather difficult to gather information about EU research organizations' participation in US programmes as this data is not collected systematically in the US funding agencies¹. Further, the US research funding landscape is decentralized, i.e., the individual research funding agencies operate rather independently from one another (as opposed to e.g. Germany), which makes any comprehensive data gathering challenging.

The information provided in the report was gathered through an email survey conducted by NCURA. The email was sent on 29 April 2014 to a large number of US institutions that are the major recipients of federal grants. These included representatives of the NSF Top 100 R&D ranked institutions, and other institutions that are represented in the governing bodies of NCURA. The email provided background information and instructions on how to submit the data, including a deadline. BILAT USA 2.0 received data on a total of 773 subcontracts granted to 373 EU organizations, from 23 different EU countries, via 17 US federal sponsors. NCURA provided the template spreadsheet as an attachment in the email in order to facilitate the compilation of consistent data. This template is presented in Annex 2. A follow up request was sent on 30 May 2014 to those who had not yet responded. NCURA continued to collect information until the deadline. The information compiled includes federally-funded subcontracts from US institutions to EU organizations during the period from 2009–2013.

¹ Please note: The former Access4EU projects were FP7 funded projects that had the aim to analyze among others exactly the aspect: how much foreign budget is going to EU institutions. These analyses were done in countries, among others the US. However, findings of these analyses were quite low and not much information on US federal money going to EU institutions could be gained.

2.1. Limitations

Some limitations occurred during the process of gathering data. These were:

- Some institutions could not provide all of the desired data elements. The wording “Not available” was used in this case.
- One university indicated that they were only able to provide data for the last two fiscal years (nonetheless, it is included in the spreadsheet).
- One of the institutions did not agree to give its name, so it was removed from the research.
- One institution did not want its name used, so it is included as ‘Misc. Ivy League School.’

3. Basic figures on EU participation in US funding programmes

In this section the results of the study are presented. In particular, the report shows which US sponsors are most popular among the EU research organizations and the EU countries which dominate in collaboration with the US. In total, 53 US institutions were able to provide information on their outgoing EU subcontracts from US federal sponsors. Table 1 shows that during the period from 2009–2013, a total of 773 subcontracts were granted to 373 EU organizations from 23 different EU countries, under projects financed by 17 US federal sponsors (abbreviations used in Table 1 are explained in Annex 1).

Table 1: Number of subcontracts out to EU organizations by EU country and US Research Federal Sponsor

	DHS	DOC	DOD	DOE	DOT	ED	EPA	HHS	HUD	MCC	NASA	NEH	NSA	NSF	NA	USAID	USDA	Total
Austria			2					2										4
Belgium								6			2	1		1				10
Bulgaria			1					3										4
Croatia			5					2										7
Czech Republic								1				1		1				3
Denmark			5	1				18			1					1	1	27
Estonia								1										1
Finland								2										2
France			22	4		1		56		1	3	1	1	18				107
Germany			24	5	7	2	2	86			4	2	1	13	2		1	149
Greece			1			1		3						1				6
Hungary								1						3			1	5
Ireland			1					3										4
Italy			8					40			2	1		5		1		57
Luxembourg														1				1
Netherlands			3			1		30			2			3		1	4	44
Poland								3						2				5
Portugal			2			1		5						2				10
Romania			2					1										3
Slovakia								1										1
Spain		1						16						1			1	19
Sweden	2		4	2	1	2		23			1							35
United Kingdom	4	1	16	5	3	1	2	211	1		12	1		10			2	269
Total	6	2	96	17	11	9	4	514	1	1	27	7	2	61	2	3	10	773

3.1. US federal sponsors most popular among EU research organizations

As shown in Figure A and B, the biggest federal sponsor with respect to EU subcontracts is the Department of Health and Human Services (HHS) with 514 subcontracts (66.5% of all EU subcontracts). The US Department of Defense (DOD) is the second biggest federal sponsor on the list, with 96 EU subcontracts (12.4% of all EU subcontracts). The third on the list is the NSF, with 61 EU subcontracts (7.9% of all EU subcontracts).

Figure A: Distribution of EU subcontracts per US federal sponsor (in absolute numbers)

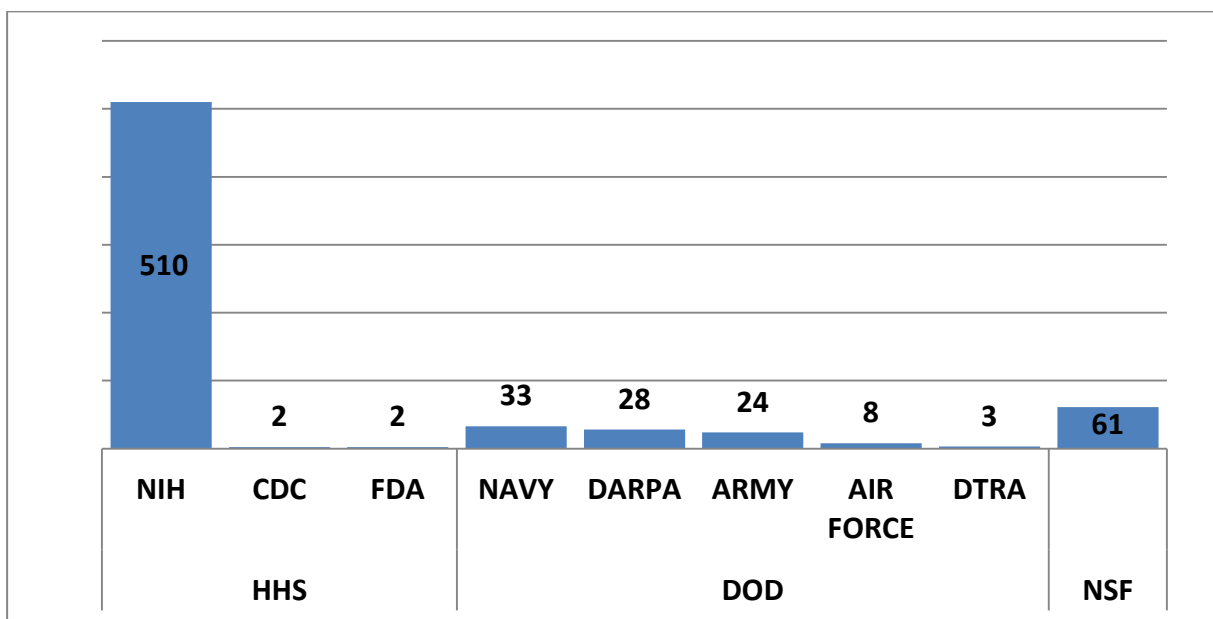


Figure B: US federal sponsors most popular among EU research organizations (in percentage)

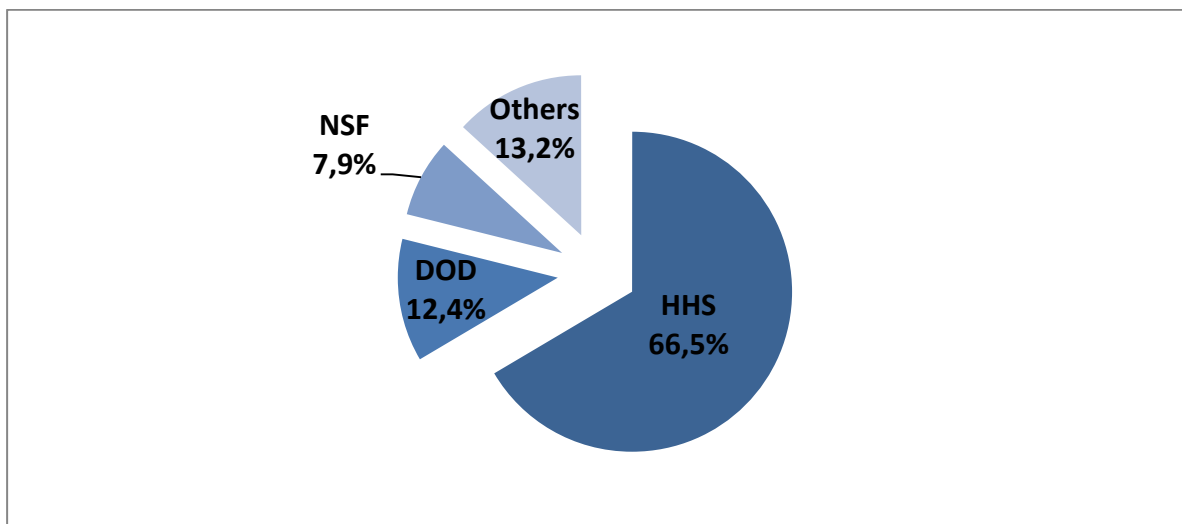
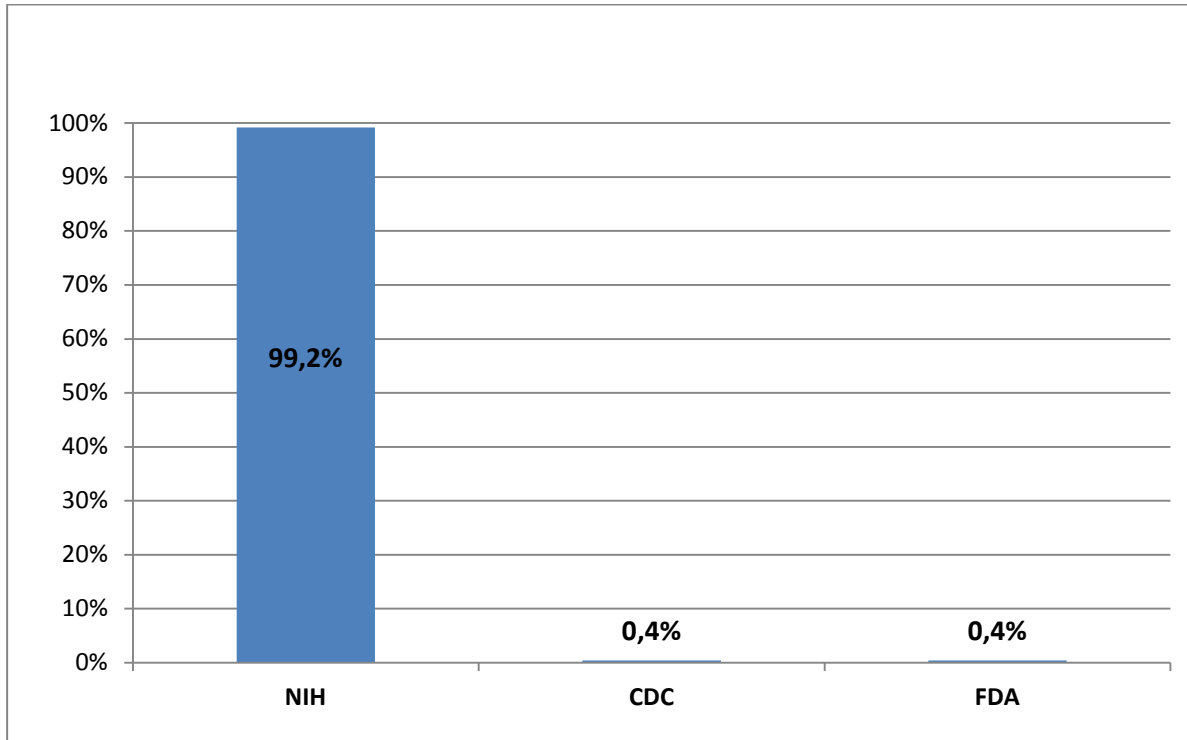


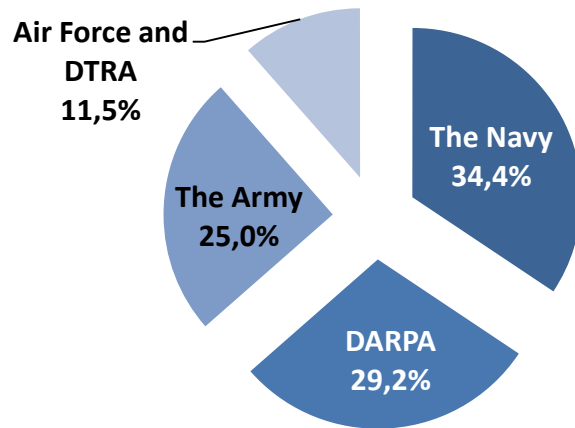
Figure C demonstrates that 99.2 % of all HHS subcontracts (510) came from the National Institutes of Health (NIH). There were also 2 subcontracts via the Centers for Disease Control and Prevention (CDC) and 2, via the Food and Drug Administration (FDA).

Figure C: Subcontracts to EU institutions via HHS subagencies



As shown in Figure D, in the case of the second biggest federal sponsor, DOD, the Navy provided 33 subcontracts (34,4%), 28 came from the Defense Advanced Research Projects Agency (DARPA) (29,2%), 24 came from the ARMY (25,0%) and 11 from the Air Force and Defense Threat Reduction Agency (DTRA) (11,5%).

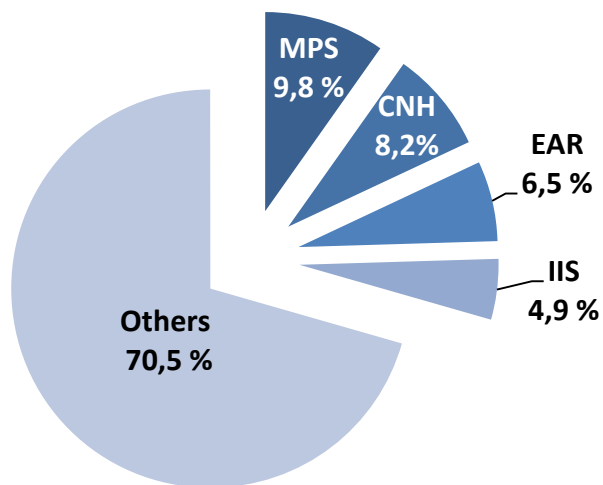
Figure D: EU subcontracts via DOD Subagencies



In the case of NSF (Figure E), 6 EU subcontracts (9,8%) came from the Directorate for Mathematical & Physical Sciences (MPS), 5 (8,2%) from the Dynamics of Coupled Natural and Human Systems (CNH), 4 (6,5%) from the Division of Earth Sciences (EAR) and 3 (4,9%) from the Division of Information and Intelligent Systems IIS.

The remaining awarding programmes funded under NSF, which had a minor number of EU subcontracts (ranging from 1 to 2), but also the ones marked as “Not available”, represent 70.5% of total NSF subcontracts.

Figure E: Subcontracts to EU institutions via NSF Awarding programmes



The distribution list of EU subcontracts per US federal sponsor is presented in Table 2.

Table 2: Number of EU subcontracts per US federal sponsor

US Federal Sponsor	No of EU Subcontracts
HHS	514
DOD	96
NSF	61
NASA	27
DOE	17
DOT	11
USDA	10
ED	9
NEH	7
DHS	6
EPA	4
USAID	3
DOC	2
NSA	2
NA	2
HUD	1
MCC	1
Total	773

3.2. US institutions and their outgoing EU subcontracts

Out of 53 US institutions there were 52 colleges / university type organizations that delivered information about their subcontracts from US federal sponsors. There was only one non-university institution that did not have any subcontract to an EU-institution.

Table 3 shows a list of top US institutions with a number of outgoing EU subcontracts higher than 10.

Table 3: Top US institutions in terms of the number of EU subcontracts

US Institutions	No of EU Subcontracts
University of Pennsylvania	132
Misc. Ivy League School	89
University of Alabama at Birmingham	45
University of Florida	41
University of Michigan	39
University of Rochester	39
Cornell University	38
University of Iowa	34
Massachusetts Institute of Technology	33
Stanford University	30
Washington University in St. Louis	27
University of Wisconsin-Madison	20
University of Minnesota	18
Emory University	13
Northwestern University	13
Vanderbilt University Medical Center	12
Wake Forest University Medical Center	12
California Institute of Technology	11

3.3. Participation of EU countries in US funding programmes

As shown in Figure F, the countries from the European Union that benefit most from US subgrants are the United Kingdom, Germany, France, Italy and the Netherlands. The larger list of Top 10 EU countries in terms of the number of subcontracts via US federal sponsors is presented in Table 4.

Figure F: Subcontracts via US federal sponsors per EU country

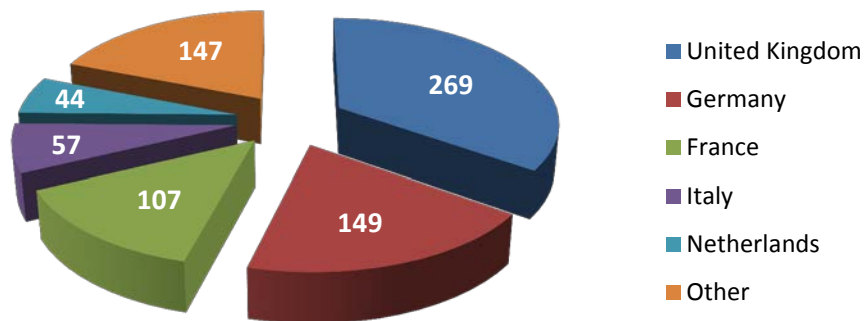


Table 4: Top 10 EU countries in terms of the number of subcontracts

UE Subrecipients' Country	EU Subcontracts
United Kingdom	269
Germany	149
France	107
Italy	57
Netherlands	44
Sweden	35
Denmark	27
Spain	19
Portugal	10
Belgium	10

The Figures G-I below show the participation of EU countries in the projects financed by three US federal sponsors: HHS, DOD and NSF, respectively. In the case of subcontracts received via HHS, the leading country in terms of the number of subcontracts is the United Kingdom, while in the case of DOD and NSF subcontracts the leaders are Germany and France.

Figure G: HHS subcontracts per EU country

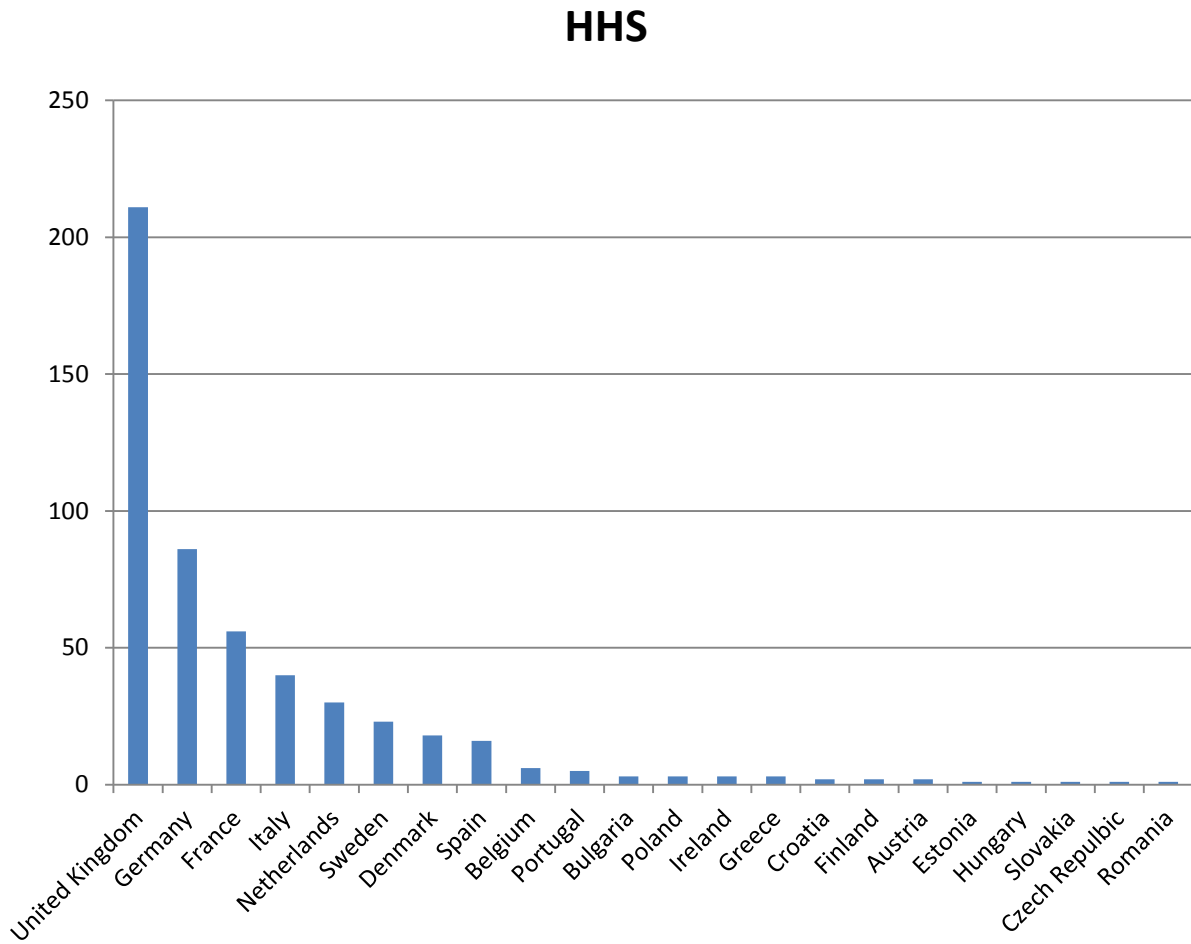


Figure H: DOD subcontracts per EU country

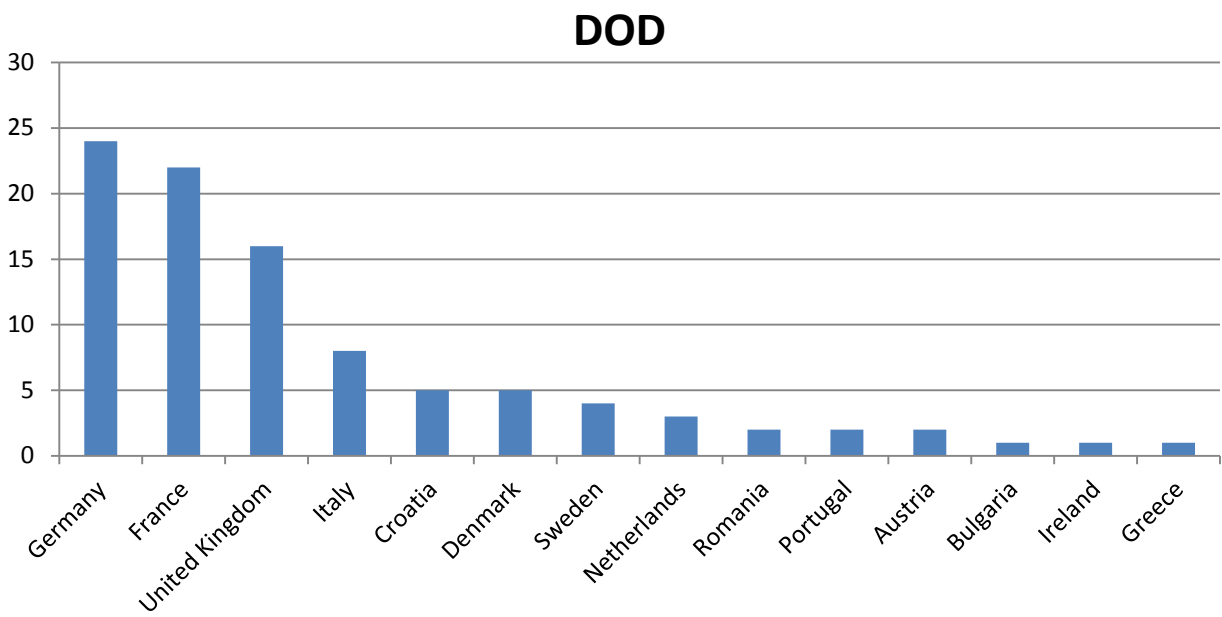
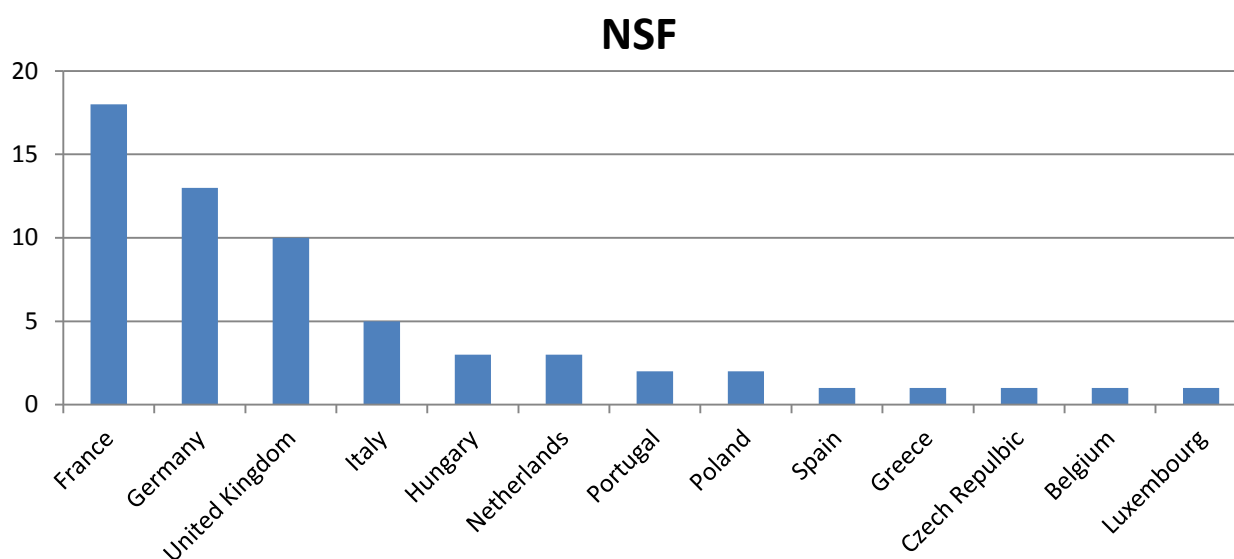


Figure I: NSF subcontracts per EU country



3.4. European Union research organizations participating in US funding programmes

Table 5 shows the ranking of EU research institutions funded via US subcontracts. The top three institutions are based in the United Kingdom.

Table 5: Top 15 EU organizations in terms of the number of subcontracts via US federal

EU Subrecipients	Subcontracts
Imperial College London	20
University College London	15
University of Cambridge	14
European Molecular Biology Laboratory	11
University of Manchester	11
Karolinska Institute	10
University of Copenhagen	9
University of Oxford	9
Kings College London	8
Max Planck Institute	8
Centre National de la Recherche Scientifique	7
University of Bristol	7
University of Edinburgh	7
Hubrecht Institute	6
Institut National de la Santé et de la Recherche Médicale (INSERM)	6

4. Conclusion / Implications

It becomes clear from this snapshot that there are a number of Member States and specific institutions that are quite active in receiving and managing US federal subgrants. NIH is by far the most significant source of this funding, followed by DoD and NSF. It is important to note that European researchers and research organizations that accept US federal subgrants are required to adhere to the overall US federal grant regulations as well as the individual funding agencies' own regulations and implementation rules. Due to the decentralized nature of the US federal funding agencies, this can be rather complicated, and the implications for failing to adhere to these complex, overlapping, and sometimes idiosyncratic rules can be quite serious, including negative audit findings, financial penalties, negative publicity, or, in the worst case, disbarment from all US federal funds.

As one consequence, BILAT USA 2.0 organized a "European tour" in October 2014 that sought to provide exactly this type of information on US funding programmes, with a particular focus on NIH and NSF as these are two of the most common US federal funding agencies that EU researchers deal with. The demand for these workshops was quite high, and at the same time, it was clear that the level of information needed was very different for an organization that already had a number of US grants or subgrants versus an organization that was planning to do so.

Furthermore, it is clear that the different Member States have vastly different levels of contact and experience with US federal funding agencies as viewed from the perspective of subgrants. Even among those that have a large number of subgrants, the source of those funds is often different for different Member States. Overall, there is clearly scope for a number of other Member States to become more involved in receiving subgrants from US federal funding agencies, and among those who are currently successful, it would be of interest to discover why some US federal agencies are more "popular" in one country versus another.

The present results are unique and provide a snapshot of US research budgets coming from the US going to Europe. International cooperation between Europe and the US is highest in the area of health research. This is also reflected by the high US participation in the European research framework programme in the area of health research². It is important to use the findings in this report to explore further possibilities for improving the framework conditions for cooperation with further national agencies, such as e.g. NSF (or DoD), as these US funders are of high interest to European researchers as well. A second "EU tour" is another way to extend the knowledge of EU research organizations about US funding.

² The EU and the NIH signed an MoU to mutually open their respective funding programmes for the each other's researchers to be eligible for funding (reciprocity).

Annex 1 – Abbreviations - US Federal Sponsors

Abbreviation	Full name of US Federal Sponsor
DHS	US Department of Homeland Security
DOC	US Department of Commerce
DOD	US Department of Defense
DOE	US Department of Energy
DOT	US Department of Transportation
ED	US Department of Education
EPA	Environmental Protection Agency
HHS	Health and Human Services
HUD	US Department of Housing and Urban Development
MCC	Millenium Challenge Corporation
NASA	National Aeronautics and Space Administration
NEH	National Endowment for the Humanities
NSA	National Security Agency
NSF	National Science Foundation
NA	The National Academies
USAID	US Agency for International Development
USDA	US Department of Agriculture

Annex 2 – BILAT Spreadsheet Template - sent with email to institutions

NEW European Subcontracts sourced from U.S. Federal Sponsors - FY09-FY13

* = This may be a Department, Institute, Center, Lab, etc.

Institution	Internal Reference#	Fiscally Responsible Unit*	Subrecipient	Project Title	EU Country	Awarding Agency	Awarding SubAgency	Awarding Program
EXAMPLE:								
Washington State University	110206-G002532	Dept. of Horticulture	Plant Research International B.V.	Functional Gene Markers for Rosaceae Tree Fruit Texture	Netherlands	USDA	NIFA	NRI
Washington State University	117483-G002993	Animal Sciences	University of Glasgow	Endogenous Retroviruses and Placental Morphogenesis	United Kingdom	HHS	NIH	NICHHD