SP11 Management and Coordination – Public Key Results for SGA2 Year 2 (D11.1.3 – SGA2)
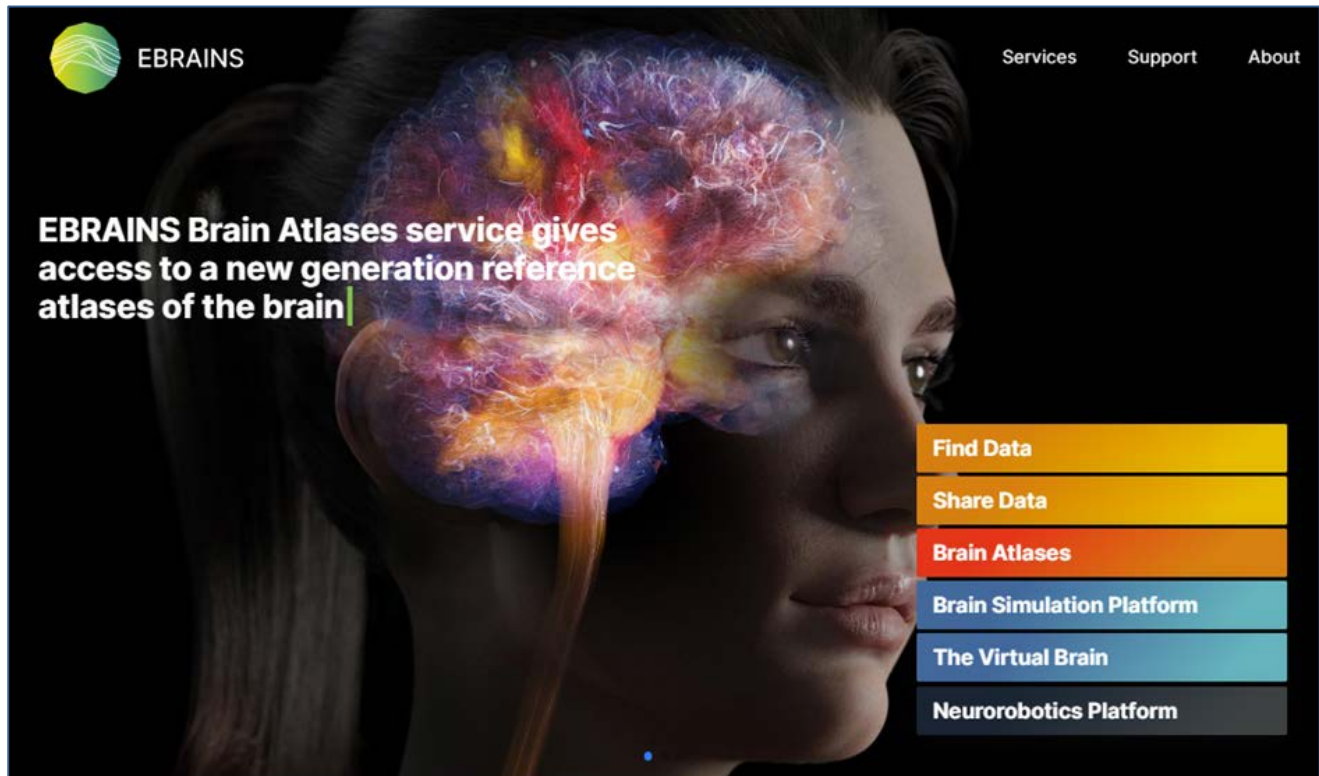

Figure 1: The Human Brain Project EBRAINS Research Infrastructure website at
https://ebrains.eu/

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Abstract:	This Sub-Project (SP) 11 Deliverable provides a selective view to the public of some of the non-scientific contributions of the SP to the success of the Human Brain Project (HBP). Its main purpose is to increase the public's knowledge of the HBP and to disseminate some of its results beyond the scientific community. Based on a selection of Key Results, it highlights the efforts and outputs of some Work Packages to achieve some specific project outcomes.
Keywords:	Communication, engagement, Partnering Projects, outreach, events, exhibition, Museum Exhibition, education, infrastructure trainings, Education Programme, workshops, schools, exploitation of results, governance

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1. Overview

Sub-project 11 (SP11) "Management and Coordination" supports the scientific and technical activities of the Human Brain Project (HBP). SP11 covers a wide variety of areas, including governance, coordination, project management, legal support, gender balance, infrastructure, software standards, data management, Calls for Expression of Interest, communication, dissemination, education and exploitation. Its Key Results and Outputs are therefore related to Project-wide activities that require a common HBP strategy and coordination to be effective, and are used by the whole Consortium, its Governing Bodies and/or the European Commission directly. As its Deliverables are often Project-wide or formal Deliverables (such as the Periodic Report), SP11 is dependent on the work of all the other SPs and Partners to deliver.

In 2019, the status of SP11 Compound Deliverable was changed from a confidential to a public document to allow a wider audience to view the non-administrative achievements of the Sub-project's contributions to the success of the HBP. In this regard, this first public SP11 Deliverable focuses on the community-facing elements of the Project, such as: education and outreach activities, dissemination, innovation efforts and exploitation of results, plans for the Project transition after the final phase in 2023 and the promotion of gender and diversity in neuroscience research.

2. Introduction

This public Deliverable will focus mainly on those Key Results (KRs) in SP11 that are largely of public interests. Below are the SP 11 KRs and a summary of their main outputs that are being reported on in this Deliverable:

- **KR11.3 – Submission of quality reports, amendments and deliverables to the EC** - The application of the PLUS Service modules and their impact on improving project coordination, reporting, quality control and dissemination.

- **KR11.8 – Improved exploitation of results from HBP** - The expansion of project innovation and national engagement within the HBP and the efforts, policies, tools and techniques being deployed to increase exploitation of project results.

- **KR11.10 – Setting up the HBP Legal Entity (LE)** - highlights the created AISBL EBRAINS, the new legal entity which will assume the leadership of the HBP sometime in SGA3.

- **KR11.12 – Increase public knowledge about HBP, its Objectives and achievements** - highlights the Project's involvement in local, national and international events and activities to increase public knowledge about HBP, its Objectives and achievements using a variety of outreach and engagements actions.

- **KR11.15 – Increase transdisciplinary scientific knowledge** - Promotes transdisciplinary scientific knowledge across Europe using a variety of training and learning approaches focused mainly on young researchers and students.

- **KR11.18 – Improve the gender balance within the Project** - Promotes greater equality and gender balance within the Project's governance, leadership, management and activities by creating a supportive environment in which the contribution of women is recognised, valued and celebrated.

Except for Key Results **KR11.3, KR11.10** and **KR11.18**, which are focused on internal Project Objectives, the other Key Results are concentrated on improving the public's knowledge of the HBP and disseminating its functional results beyond the scientific community.

The highlights of year 2 (April 2019 – March 2020) include: the creation and integration of the new legal entity, the AISBL EBRAINS into the Consortium (**KR11.10**); the launch of the PLUS-Service modules to support project coordination, reporting, quality control and dissemination (**KR11.3**), the holding of a successful project summit in Athens and the launch of the HBP Museum exhibition "Mind the Brain" to promote Project achievements (**KR11.12**), roll out of an exploitation policy in support

of the exploitation of innovative project results (**KR11.8**), expansion of new collaborators via the Partnering Projects, launch of the new EBRAINS website and the release of results from the HBP Education Programme long-term Assessment (**KR11.15**), among several others.

3. Key Result KR11.3 Submission of quality reports, amendments and deliverables to the EC.

3.1 Outputs

3.1.1 Overview of Outputs

3.1.1.1 List of Outputs contributing to this KR

- Output 1: PLUS-Service (C394)

3.1.1.2 How Outputs relate to each other and the Key Result

PLUS is an integrated platform specifically designed and developed to support the Project coordination, governance, monitoring and reporting. It provides an integrated and continuously updated view of the Project progress through specific dashboards. It serves as an entry point for the Consortium-reportable activities (dissemination, publications) and Outputs (Components). Data are then curated and validated prior to inclusion in reports and Deliverables.

Part of the PLUS functionality to analyse and verify entered data is available via a separate interface but will eventually be merged with PLUS.

3.1.2 Output 1: PLUS-Service (C394)

PLUS is a service which tracks the HBP Outputs (Publications, Dissemination activities and Components), assists in their validation according to EC-specific rules, and their curation by a dedicated team, in order to implement quality control.
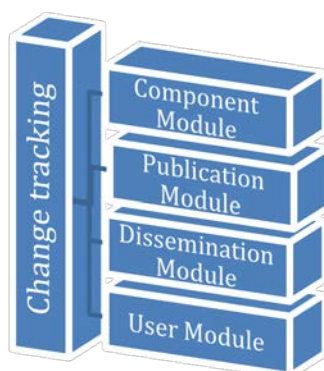

Figure 2: PLUS functional Structure

PLUS has 4 horizontal modules which currently track Outputs (Publications, Disseminations, Components) and users, and a vertical module which serves as a change tracking service to control and identify modifications brought to stored data and to enable a complete activity trail with the possibility to revert to a previous status. (Figure 2) This is a key feature of PLUS. To share information in the Project as soon as it is available, data are typically entered incrementally as they become

available and collaboratively by multiple users. The change-tracking feature comforts users in trusting the tool and edits by their colleagues.

The PLUS user group is comprised mostly of Sub-project managers and or related Task Leaders who are largely involved in the process of the requirement specification and the validation of releases.

The Component Module is the repository for the technical and scientific results and Outputs of the HBP. Components can be a software, a hardware, a service, a dataset, a model or a report. Every component is stored with a set of metadata to help identify the origin, location and documentation of the component. It also tracks the life cycle of Components, and in particular of the different Component releases, differences between them, and their validation.

The Component module recently added the following features:

- Update of the TRL definitions

- Update of associations to elements of the project management framework including Tasks, CDPs, partners, Key Results and Use Cases

- Dependencies: tracking dependencies among Component releases

The Publication Module is the repository of scientific publications produced by the HBP members. It includes a wide range of publication types. All EC validation rules are enforced in order to verify that only publications which conform to those rules are included. The module serves also as a unified repository to share and inform all HBP members about recent publications.

The main features of the last publication module release are:

- DOI: Retrieve publications' metadata based on the DOI

- Update of associations to elements of the project management framework including Tasks, CDPs, partners, Key Results and Use Cases

- SyGMa interface: Automated 'push' of qualifying publications to the EC's repository

The Dissemination Module regroups all planned activities related to organisation or participation in events. Those events can be conferences, workshops, exhibition, pitching event. The module is also a repository for all communication-related activities such as press releases, communication campaigns, non-scientific communications.

Finally, the **User Module** collects information about HBP users for statistical purposes and to allow users to choose to share information about themselves with other users. This module participates in creating a user community rather than a group of people. It facilitates collaborations among users (Figure 3 & Figure 4).

3.2 Validation and Impact

3.2.1 Actual and Potential Use of Output(s)

PLUS is currently used as a primary tool for the curation and the validation of outputs and activities. The validation workflow implemented in PLUS enforces rules and constraints to enable the easy production and export of high-quality data either directly to the EC SyGMa portal or to be integrated in Deliverables.

The implementation of quality monitoring is primarily intended to drive proactive decisions and to increase conformity with EC and internal rules. PLUS plays an important role in establishing communication between developers of Components and their respective user groups, in coordinating timely releases and in ensuring a better alignment with user requirements.

Finally, PLUS is making the storage, the finding and the internal dissemination of results and actions much easier and accessible to all HBP members, and beyond with exports to the HBP website.
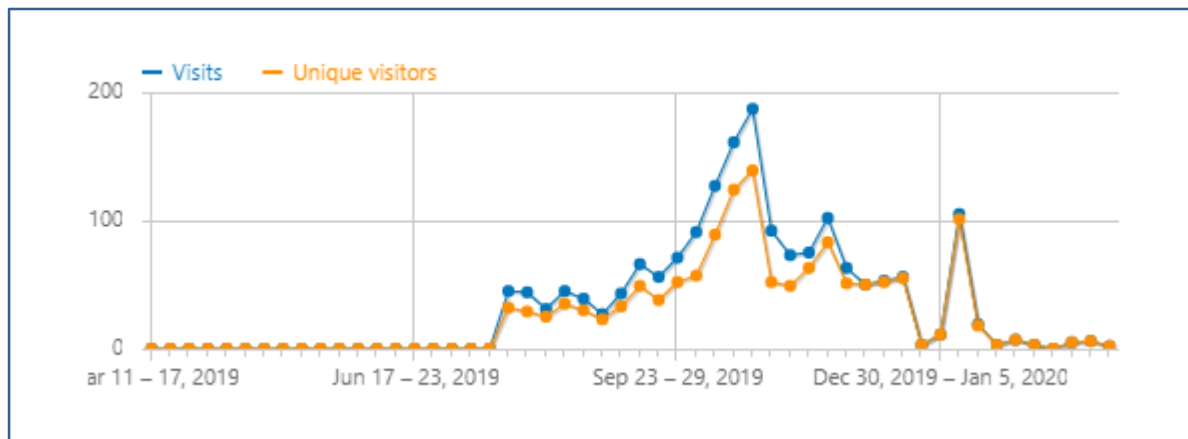
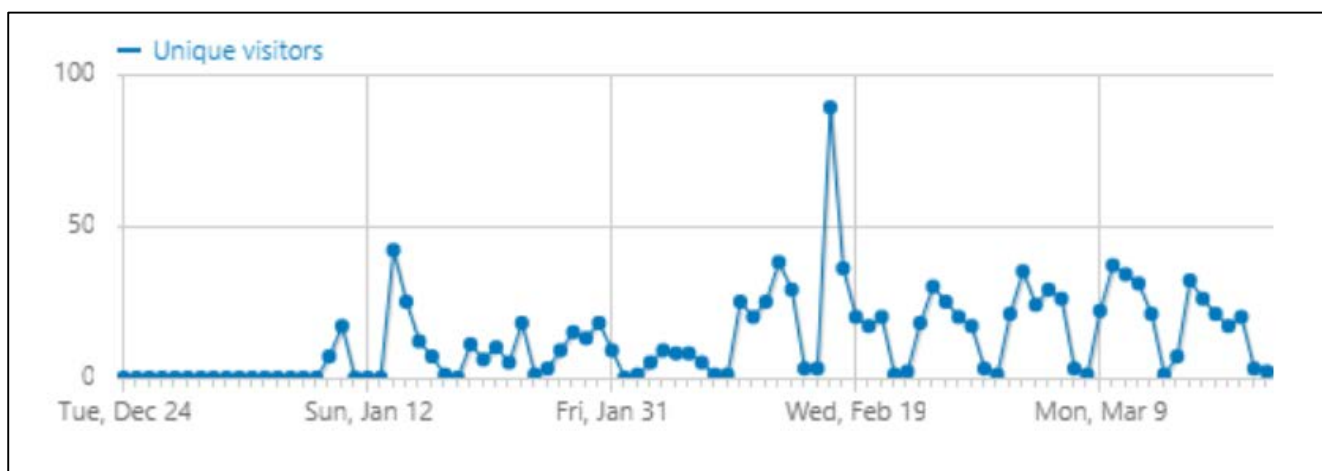Figure 3: The number of user connections to PLUS Services - Jun 2019 - Jan 2020

Figure 4: The number of PLUS user connections using IAM ID system first months of 2020

3.2.2   Publications

There are no publications associated with this KR.

4. Key Result KR11.8. Improved exploitation of results from HBP

4.1   Outputs

4.1.1   Overview of Outputs

4.1.1.1   List of Outputs contributing to this KR

- Output 1: Exploitation plan
- Output 2: Exploitation policy
- Output 3: CRM implementation
- Output 4: Updated technology catalogue

- Output 5: Innovation website

- Output 6: Innovation training

- Output 7: Industrial hub support

4.1.1.2   How Outputs relate to each other and the Key Result

A transversal innovation management action for the exploitation of the HBP results was conducted by the Innovation Team during SGA2. The action addressed three strategic pillars – technology transfer, innovation training and the promotion of national industrial hubs.

To foster technology transfer in the HBP, the Innovation Team developed a strategic exploitation plan and a Policy for the exploitation of HBP results that are aimed to guide HBP researchers and developers on innovation specific actions.

The Innovation Team has used training as a key tool to raise researchers' awareness and train HBP partners on the innovation and exploitation processes in SGA2. Training activities have included sessions on the protection, exploitation and ownership of results.

By promoting national innovation hubs, the Innovation Team has engaged industrial actors to the HBP by facilitating a better understanding of the HBP in general, and through provision of introduction to the most promising HBP tools and services.

4.1.2   Output 1: Exploitation Plan

The Exploitation Plan (D11.3.2 (D70.2 D11) SGA2 M11) summarises how the HBP Innovation Team will help researchers and developers in SGA2 to identify and assess their potentially exploitable results (e.g. maturity, market potential evaluation), and promote the eventual utilisation of these results by commercial and non-commercial organisations.

Specific exploitation plans have been also prepared in SGA2 by the research groups for their most promising technology developments. These plans describe: actual research efforts and advances, scientific and/or industrial markets targets, expectations on eventual applications, contribution of their results to EBRAINS, level of maturity of their technologies to end-user communities, and alternatives processes to effectively exploit their technology, among other aspects.

4.1.3   Output 2: Exploitation Policy

The HBP Exploitation Policy was prepared to disseminate the principles underlying the effective exploitation of the HBP's results and to reinforce the commitment of Project partners to technological innovation. The Policy is a short and user-friendly guide through which researchers and developers can get practical answers to questions related to the protection, exploitation and ownership of results. It establishes a terminology on exploitation that ensures a common understanding of concepts and achieve higher consistency and compatibility between the HBP mission, researchers´ interests, partner agreements, and partner institution's own policies.

4.1.4   Output 3: CRM implementation

A Customer Relationship Manager (CRM) has been designed and implemented at Universidad Politecnica de Madrid (UPM). It is currently being used to follow the interaction of potential users with the HBP's results; to collect, answer and follow the expressions of interest in the project and to manage the interactions within the consortium related to the Technology Catalogue. There are plans to expand its use to other Project-related activities.

4.1.5   Output 4: Updated technology catalogue

The HBP's Technology Catalogue has been updated during SGA2 with identified emerging technologies. The criteria for inclusion in the HBP technology catalogue are: a) Technology Readiness Level (TRL) over 4, b) the developer/researcher(s) should have acknowledged the possibility of transferring (commercially or non-commercially) the technology to external entities within the lifetime of the Project, c) received institutional support, and d) the technology has been partially or fully funded by the HBP (or supported by in-kind contribution).

To define the maturity level of the technologies, a TRL assessment guide has been created to support HBP members in evaluating (homogeneously) the maturity of their developing results (hardware, software, services, datasets or models) and help them to realise how far these results are from their production release. A final form is a fully operational version or release of the developed solution.

https://www.humanbrainproject.eu/en/collaborate/innovation/technology-catalogue/

4.1.6   Output 5: Innovation website

An innovation section (https://www.humanbrainproject.eu/en/collaborate/innovation/) was created on the HBP's website to inform on HBP's innovation strategy and share with the public and HBP members relevant information like the Technology Catalogue, the activities of the Innovation Hubs, the TRL assessment guide and the Exploitation policy.

4.1.7   Output 6: Innovation training

A training activity on innovation was held at the Summit in Athens (5 Feb 2020) and included a session on the protection, exploitation and ownership of HBP results based on the new Exploitation policy), a session on the new monitoring tool (CRM), and an introduction of the new TRL assessment checklist guideline.

4.1.8   Output 7: Industrial hub support

UPM is supporting the creation of National Hubs for Innovation (NHI) in several European countries to facilitate interaction with the industrial sector. Their main aims are to enable the maturation of some HBP technologies, to foster a better understanding of industry interests in the brain-related science and technology and to pave the way towards the ESFRI (European Strategy Forum on Research Infrastructures) roadmap.

Two National Hubs for Innovation were launched in Spain and Belgium. Thus far, the Spanish Hub has 21 members that have signed an MoU to join the Hub. Several meetings have taken place including a public workshop to present EBRAINS to interested companies and hospitals.

https://www.humanbrainproject.eu/en/collaborate/innovation/national-hubs-for-innovation/

4.2   Validation and Impact

4.2.1   Actual and Potential Use of Output(s)

- Output 1: Exploitation Plan – It serves to guide HBP members on innovation activities and strategy.

- Output 2: Exploitation Policy – This Policy will become an essential document in SGA3 to help HBP members to understand and implement different protection, ownership and exploitation activities.

- Output 3: CRM implementation – The CRM facilitates the tracking and follow up of technology transfer, exploitation, and user communities related initiatives.

- Output 4: Updated technology catalogue – The catalogue provides an easy and friendly access to HBP exploitable technologies.

- Output 5: Innovation website – The website summarises the HBP innovation activities and results.

- Output 6: Innovation training – Training and awareness raising is crucial to keep innovation efforts alive.

- Output 7: Industrial hub support – The National hubs initiative requires both administrative support and innovation-related advice.

4.2.2 Publications

There are no publications associated with this KR.

5. Key Result KR11.10 Setting up the HBP Legal Entity (LE)

5.1 Outputs

5.1.1 Overview of Outputs

Background and context

The HBP Framework Partnership Agreement (FPA) sets out key elements in the governance structure that would contribute to the stability, continuity and coherence of the Flagship Project. Among these elements is the establishment of a Legal Entity so that the Coordinator's role will be undertaken by a group of major stakeholders, rather than a single partner.

In 2019, a change process was initiated in the coordination of the HBP. This process intends to put the Project Coordination into a new Legal Entity. The new Legal Entity will have its own independent sources of funding, be able to maintain and operate the created Research Infrastructure and to allow this to continue functioning after the end of the Project.

The Legal Entity has the dual mission to act as coordinator of the HBP core Project (in place of EPFL) and to lead the European Research Infrastructure being built by the HBP to sustainability. One of the main objectives of the Legal Entity will be to prepare the HBP / EBRAINS Research Infrastructure to join the ESFRI roadmap.

5.1.1.1 List of Outputs contributing to this KR

- Output 1: Registration and filing of the Legal Entity: EBRAINS AISBL

- Output 2: Integrating EBRAINS AISBL in the HBP Consortium

- Output 3: Preparing the strategy, structure and next steps

5.1.1.2 How Outputs relate to each other and the Key Result

The Outputs relate to each other by their co-dependency. Once the EBRAINS AISBL was granted a legal personality, it triggered the procedure to join the HBP by obtaining a PIC (Participant Identification Code) number on the EC Funding and Tender platform, allowing its integration as a

Consortium partner. In parallel, the Board of Directors (BoD) was able to lay the foundations for being the future coordinator of SGA3 and beyond.

5.1.2 Output 1: Registration and filing of the Legal Entity: The EBRAINS AISBL

In May 2019, six founding members committed to supporting the creation of the Legal Entity and on 23 Aug 2019, the Deed of establishment and the statutes of an AISBL (Association Internationale Sans But Lucratif) were signed in Brussels, under the name "EBRAINS". (Table 1)

The Founding members are shown in Table 1:

Table 1: Founding Members of EBRAINS

No.	Institution	Country	Representative
1	Universidad Politecnica de Madrid (UPM)	Spain	Asunción GOMEZ PEREZ
2	Kungliga Tekniska Hoegskolan (KTH)	Sweden	Gunnar LANDGREN
3	Forschungszentrum Jülich (Jülich)	Germany	Wolfgang MARQUARDT
4	Commissariat A L Energie Atomique Et Aux Energies Alternatives (CEA)	France	André SYROTA
5	Universitetet I Oslo (UiO)	Norway	Frode VARTDAL
6	Ecole Polytechnique Federale de Lausanne (EPFL)	Switzerland	Martin VETTERLI

The EBRAINS AISBL has an ad-interim CEO, Prof. Andreas MORTENSEN of EPFL, currently Director-General of the HBP.

The AISBL is a legal entity under Belgian Law (Association Internationale Sans But Lucratif). Under this new arrangement, the Directors are legally liable and represent their institutions and not directly their country partners (as in the case of the Stakeholder Board of the HBP).

Since then, the EBRAINS AISBL has been opened to new Full Members and Associate Members; the Consiglio Nazionale delle Ricerche (CNR) in Italy is in the process of joining the AISBL as a Full Member, which will grant them full voting rights and the equivalent status as the Founding Members, apart from being a signatory of the Deed of establishment.

On 5 Dec 2019, EBRAINS AISBL officially received the (Belgium) Royal Decree, which created a legal personality and allowed the Court to deliver a Company Number.

5.1.3 Output 2: Integrating EBRAINS AISBL in the HBP Consortium

In parallel, the Board of Directors (BoD) of EBRAINS AISBL has started the process of recruiting its Chief Executive Officer (CEO). The final outcome is still pending at the writing of this document. The CEO will be based in Brussels, will manage the EBRAINS AISBL, and act as the Director General of the HBP.

A Swiss branch of the AISBL is currently being setup and will hire the PCO staff in SGA3 once the transfer is agreed upon. Project coordination will be transferred from EPFL to the EBRAINS AISBL sometime in SGA3.

The EBRAINS AISBL is currently being added to the HBP Consortium through Amendments; first as a beneficiary partner (inactive) in SGA2 (FPA Amendment 7) and then eventually as the Coordinator of the HBP sometime in SGA3.

5.1.4 Output 3: Preparing the strategy, structure and next steps

The EBRAINS AISBL will eventually become the coordinator of the HBP in SGA3, helping to create the future European Research Infrastructure. In SGA3, the HBP will retain its governance structure based on the FPA, relying on the Stakeholder Board (SB), the Science and Infrastructure Board (SIB), the Directorate (DIR) and the Advisory Bodies (SIAB and EAB), see Figure 5.

Currently, the Directors of the AISBL are all members of the Stakeholder Board (SB) of the HBP and the SB will continue to function as the ultimate decision-making authority in SGA3. However, after SGA3, the governance structure would evolve toward an "ESFRI compatible" governance; roles will be redefined, responsibilities will evolve and the EBRAINS AISBL would become the coordinator of a different, ESFRI-oriented Consortium.

5.2 Validation and Impact

5.2.1 Actual and Potential Use of Output(s)

The validation and impact elements of this KR are practical:

Output 1: The filing of the EBRAINS AISBL was officialised by the Deed of Establishment and the granting of the Royal Decree. These steps were followed by the attribution by the court and the issuance of a company number (740908863).

Outputs 2 / 3: The steps and achievements in Output 1 led naturally to the efforts in Output 2: the process of integrating the new entity into the HBP. The main validation element is the obtaining a PIC number (896706219) on the EC platform.

With the PIC number, the AISBL was able to nominate a LEAR (Legal Entity Appointed Representative) and a PLSIGN (Project Legal Signatory), and provide all required documents allowing it to sign the Declaration of Honour, the Consortium Agreement and to be added, through an Amendment, to the FPA.

5.2.2 Publications

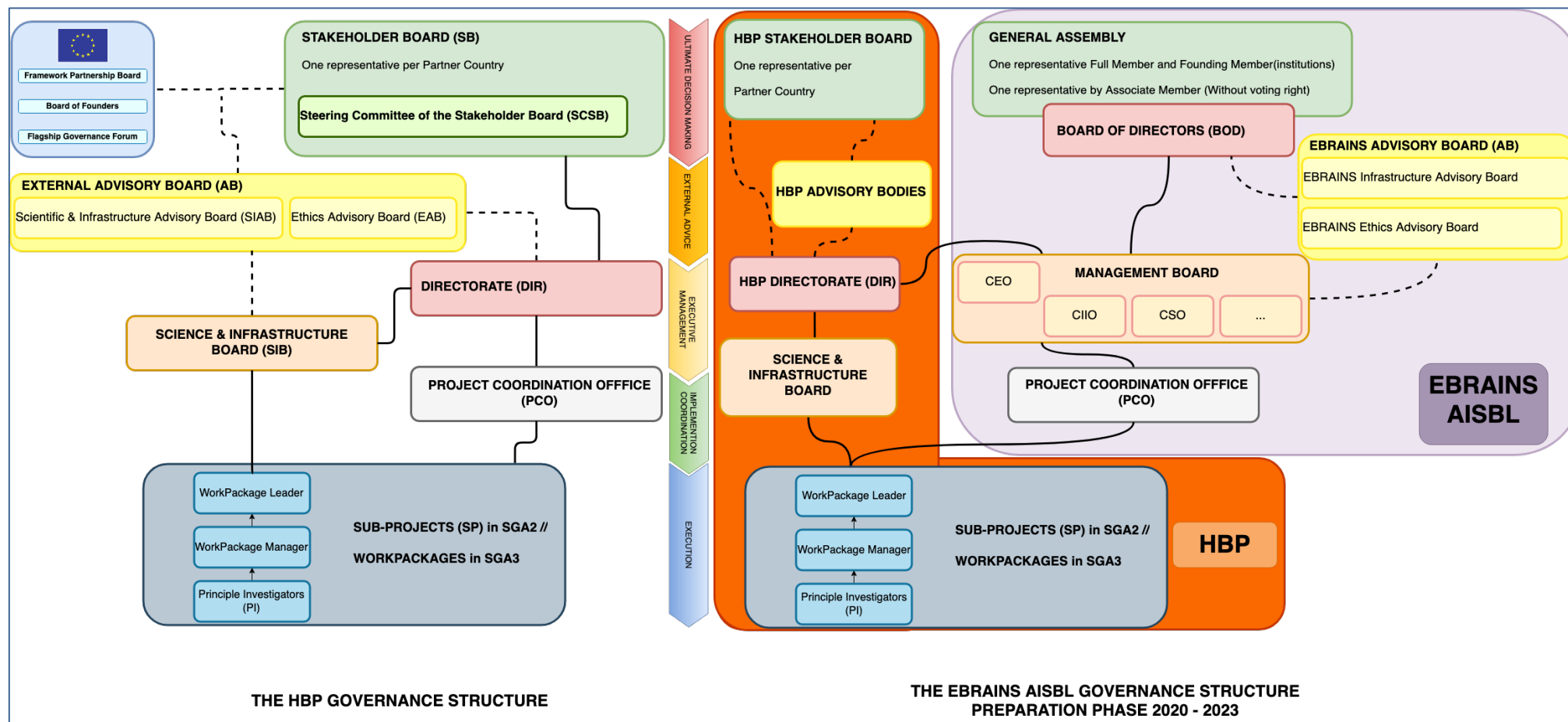There are no publications associated with this KR.

Figure 5: Governance Structure

6. Key Result KR11.12 Increase public knowledge about HBP, its objectives and achievements

6.1 Outputs

6.1.1 Overview of Outputs

6.1.1.1 List of Outputs contributing to this KR

- Output 1: Development and release of new EBRAINS website
- Output 2: HBP Newsletter editions
- Output 3: New Partnering Projects welcomed
- Output 4: HBP Open Day & Summit 2020 in Athens
- Output 5: Public event in Heidelberg: EBRAINS - New enabling infrastructure for neuroscience
- Output 6: Travelling HBP exhibition in Germany and German-speaking countries: "Faszination Gehirn – das Human Brain Project"
- Output 7: Travelling HBP Museum Exhibition in Israel and Poland: "Mind The Brain"
- Output 8: National outreach event "Human Brain Project & Dutch Neuroscience: Shaping Collaborations"
- Output 9: Showcasing HBP results at large scientific conferences in 2019
- Output 10: Public report: HBP Education Programme Long-term Assessment

6.1.1.2 How Outputs relate to each other and the Key Result

The long-term assessment of the HBP Education Programme provides insights into how this Programme contributed to increasing public knowledge about the HBP and presents former participants' views on the Project's objectives and achievements. This output was important for planning future Education Programme events and outputs contributing to KR11.15. Other outputs contributing to KR11.12 are independent.

6.1.2 Output 1: Development and release of new EBRAINS website

In the summer of 2019 a new https://ebrains.eu/ website was developed to serve as a front-door to the HBP's research infrastructure. The development of a branding and visual identity for EBRAINS was approved by HBP leadership and work commenced on prototyping and then building the website.

A pre-release version of the website was soft-launched in late October 2019 during the SfN meeting in Chicago, and then updated in November. At the end of December 2019, the EBRAINS branding was included as an element in the HBP Fascinating Brain exhibition held in the German Bundestag.

6.1.3 Output 2: HBP Newsletter editions

During M13-24, the external HBP Newsletter audience grew from under 500 to over 800. Eight editions were published during M13-24, all of which are available on the HBPs website without the need to sign up: https://www.humanbrainproject.eu/en/follow-hbp/newsletter/

6.1.4 Output 3: New Partnering Projects welcomed

In the second half of SGA2, there was growth to the Partnering Projects Programme (PP) by the addition of some 28 new collaborators. Several new Partnering Project (PP) applications were processed and integrated while others were completed. The partnering task was also the interface with other collaborating projects such as; FLAG-ERA and SCOPE.

A major effort was the PE/PP showcasing at the HBP Summit and Open Day in Athens, February 2020. In total 26 PPs were represented by 47 members attending the Summit. There was considerable positive feedback from the PP, the Consortium and the wider community.

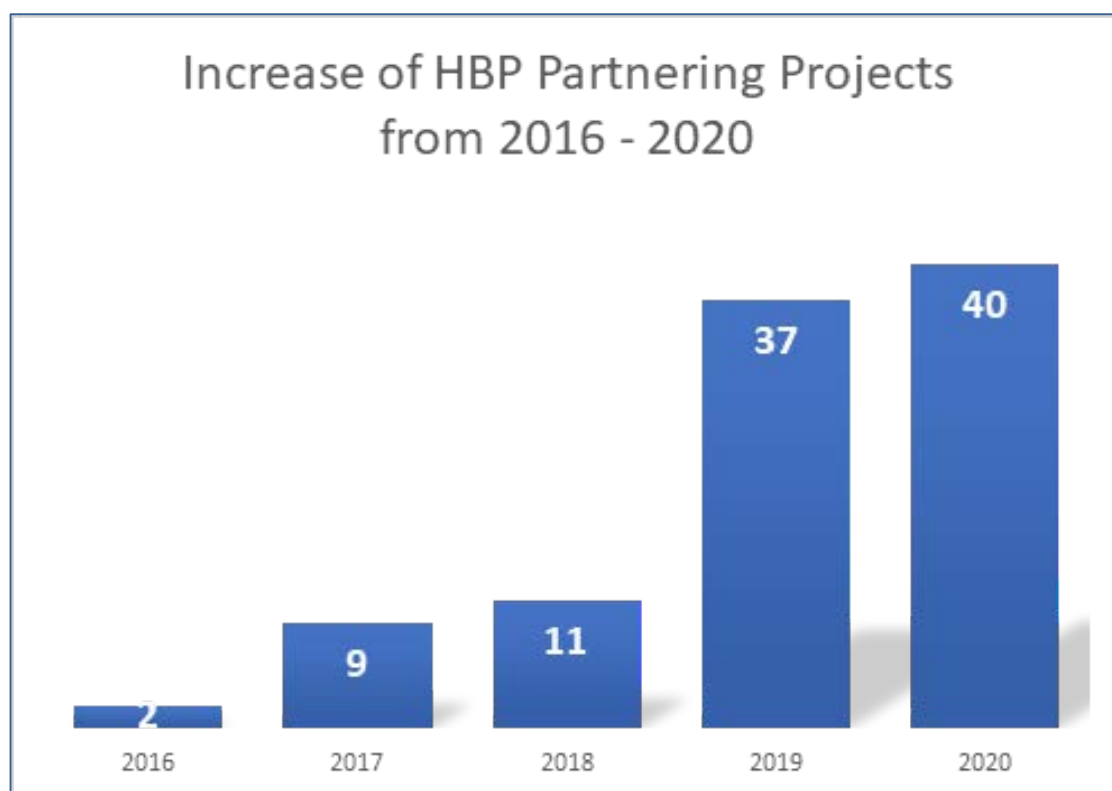For an overview of the status of the Partnering Environment (PE) see Figure 6. Information on individual PPs can be found at https://www.humanbrainproject.eu/en/about/project-structure/partnering-projects/

Figure 6: Growth of the HBP Partnering Projects from 2016-2020

6.1.5 Output 4: HBP Open Day & Summit 2020 in Athens

The annual Human Brain Project Open Day and Summit took place at the Megaron Conference Centre in Athens, Greece, from 3-6 Feb 2020. The Open Day event - held on 3 Feb - was attended by more than 700 visitors. The president of Greece Prokopios PAVLOPOULOS presented the welcome speech, while Prof. Yannis IOANNIDIS of the ATHENA Research Centre, the host organisation (Figure 7) chaired the event. The event included featured talks and keynote lectures from HBP scientists and special guests, as well as posters and a dedicated exhibition – The HBP Science Agora.

The 3-day Human Brain Project Summit was open to both HBP participants as well as invited external participants and speakers. A panel of experts from Europe and overseas discussed the role of global

brain initiatives (Figure 9). The programme also included dedicated sessions on the 36 Partnering Projects of the HBP, the results of technology-driven research into the brains connectome and its pathologies, new approaches to consciousness, ethical considerations, and much more, with total participation of over 500 scientists.

Press release: https://www.humanbrainproject.eu/en/follow-hbp/news/7th-hbp-summit-in-athens-the-road-to-ebrains/

6.1.6 Output 5: Public event in Heidelberg: EBRAINS - New enabling infrastructure for neuroscience

The public event "EBRAINS - New enabling infrastructure for neuroscience" took place on 25 Nov 2019 at the University of Heidelberg in Germany. This event was open to the scientific community and aimed to introduce EBRAINS - the world's first integrated ICT infrastructure for brain research and development. Hosted by the University of Heidelberg, this event was the first in a series during the HBP Brain Days, followed by workshops from 25-28 Nov 2019 (for more information on the Brain Days see section on KR11.15).

Press release: https://www.humanbrainproject.eu/en/follow-hbp/news/ebrains-new-enabling-infrastructure-for-neuroscience-recap/

TV clip on Brain Days: https://www.swr.de/swraktuell/baden-wuerttemberg/mannheim/Human-Brain-Project-Dem-Raetsel-des-Gehirns-auf-der-Spur,av-o1177365-100.html

6.1.7 Output 6: Travelling HBP exhibition in Germany and German-speaking countries: "Faszination Gehirn – das Human Brain Project"

A traveling exhibition on the Human Brain Project, its scientific achievements and the Research Infrastructure for Brain Research, EBRAINS, was opened on 21 Nov 2019 in the German Parliament in Berlin. It was opened to the public for 3 weeks (Figure 8). In January 2020, the exhibition travelled to the State Parliament of North Rhein-Westphalia in Düsseldorf. It is scheduled to be shown in Brussels later in the year.

Press releases:

https://www.humanbrainproject.eu/en/follow-hbp/news/human-brain-project-exhibition-opens-in-the-german-bundestag/

https://www.humanbrainproject.eu/en/follow-hbp/news/hbp-exhibition-presents-fascination-brain-in-the-state-parliament-of-north-rhine-westfalia/

TV clip:

https://www.bundestag.de/mediathek?videoid=7404337#url=L21IZGIhdGhla292ZXJsYXk/dmIkZW9pZD03NDA0MzM3JnZpZGVvaWQ9NzQwNDMzNyZ2aWRlb2IkPTc0MDQzMzc=&mod=mediathek

6.1.8 Output 7: Travelling HBP Museum Exhibition in Israel and Poland: "Mind The Brain"

In SGA1, a traveling brain exhibition was built to present the HBP project and to highlight the scientific achievements that will be achieved during the project. (Figure 10). The 65 square meter "Mind the Brain" exhibition is intended to promote the achievements of HBP at science museums, science centres and other suitable host institutions, and to cater for families and local education systems (ages 10 and up).

The Exhibition was piloted in Jerusalem (Bloomfield Science Museum Jerusalem) and in Warsaw (Copernicus Science Center). Evaluations were done in both museums to examine its suitability to target audiences and host institution's needs.

Press release: https://www.humanbrainproject.eu/en/follow-hbp/news/mind-the-brain-museum-exhibition-for-hbp-launched-in-jerusalem/

TV clip: https://www.youtube.com/watch?v=2BVUSUsCExc

6.1.9 Output 8: National outreach "Human Brain Project & Dutch Neuroscience: Shaping Collaborations"

On 14 Feb 2020 in Amsterdam, over 100 neuroscientists and other interested guests gathered for the HBP's event "Human Brain Project & Dutch Neuroscience: Shaping Collaborations", to hear about opportunities for outside researchers to engage with the Project and use the infrastructure of the HBP EBRAINS.

The event, a collaboration between the Human Brain Project & the University of Amsterdam was hosted by Cyriel PENNARTZ, leader of the HBPs research area Systems and Cognitive Neuroscience.

This national outreach event strengthens the Dutch involvement in HBP following past user engagement efforts such as the hosting of the HBP Summit and Open Day in Oct 2018 in Maastricht and strategic HBP meeting in Jun 2019 in Amsterdam.

Press release: https://www.humanbrainproject.eu/en/follow-hbp/news/human-brain-project-dutch-neuroscience-shaping-collaborations/

6.1.10 Output 9: Showcasing HBP results at large scientific conferences in 2019

During 2019, HBP was represented at several high-profile scientific conferences to present the latest results to researchers and potential new infrastructure users:

- Annual Assembly of the International Neuroinformatics Coordinating Facility (INCF) Warsaw, Poland. Aug - Sep 2019. The HBP held a dedicated HBP booth and demo station to give attendees an opportunity to interact with experts from different project areas. (Figure 11). The HBP visibility was further strengthened via poster presentations and a networking session.

  Press release: https://www.humanbrainproject.eu/en/follow-hbp/news/human-brain-project-at-incf-s-neuroinformatics-2019-in-warsaw/

- The Annual Bernstein Conference in Berlin, Germany, 18-20 September 2019. HBP partners organised an exhibition booth and a satellite workshop on "Brain Circuit Insight: From brain circuit models to brain circuit insights".

  Website: https://www.bernstein-network.de/en/bernstein-conference/past-conferences/2019/satellite-workshops/brain-circuit-insight-from-brain-circuit-models-to-brain-circuit-insights

- Neuroscience 2019, the annual congress organised by the Society for Neuroscience (SfN), gathered more than 30,000 participants from the international neuroscience community in Chicago, USA, 19-23 Oct 2019. The HBP booth was part of a co-marketing booth cluster, together with the International Neuroinformatics Coordinating Facility (INCF), The Virtual Brain (TVB) and Neuroscience Information Framework (NIF). HBP experts co-organised a Professional Development Workshop on Science Management (panelists: HBP, TVB, INCF, Baycrest Hospital, Ontario Brain Institute) and displayed and presented their scientific results in 35 posters, and at the following website: https://www.sfn.org/meetings/neuroscience-2019

Figure 7: HBP leadership with president PAVLOPOULOS at the Open Day.

Figure 9: Panel Session "Brain initiatives around the world"

Figure 8: Exhibit at the German Bundestag (Photo copyright by Tobias KOCH).

Figure 10: Visitors at the HBP Museum Exhibition in Warsaw (credit: Copernicus Science Centre).

Figure 11: Discussion with representatives at the HBP booth.

Figure 13: HBP Young Researchers Event participants and speakers.

Figure 12: Attendees of the 4th HBP Student Conference on
Interdisciplinary Brain Research

Figure 14: Participants at CodeJam#10.

6.1.11 Output 10: Public report: HBP Education Programme Long-term Assessment

To measure the long-term impact of the HBP Education Programme's activities, the HBP Education Programme office conducted an online survey with former event participants from Ramp-Up Phase (RUP) and SGA1 (SGA2 Milestone MS11.5.6).
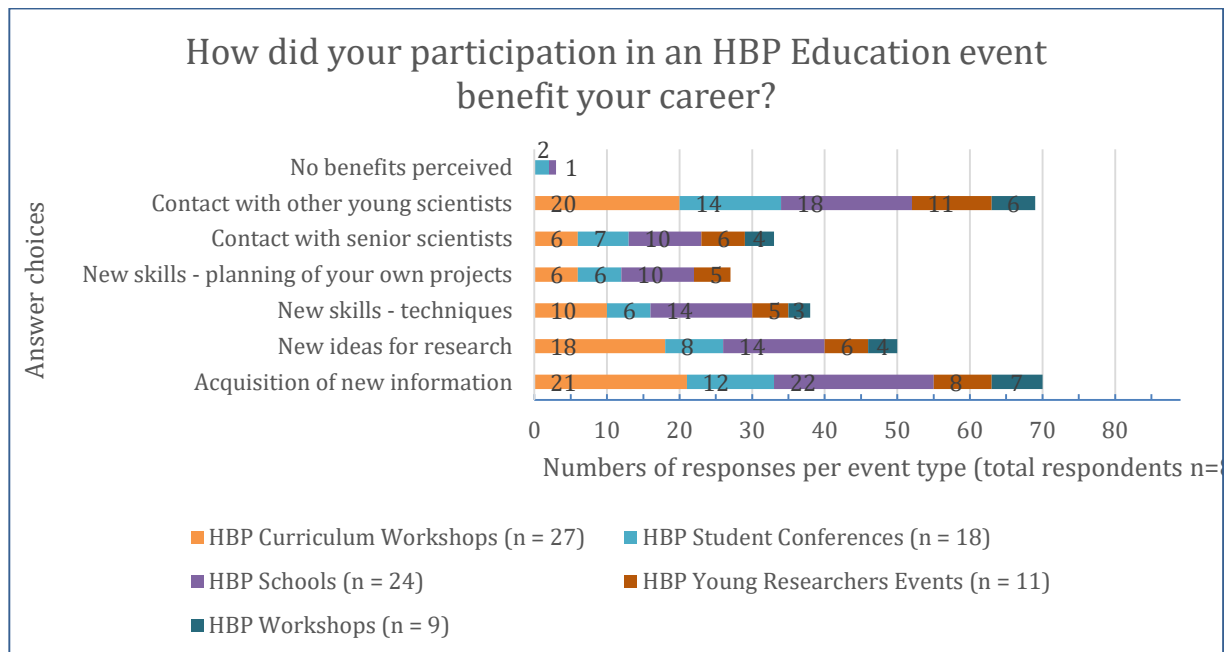

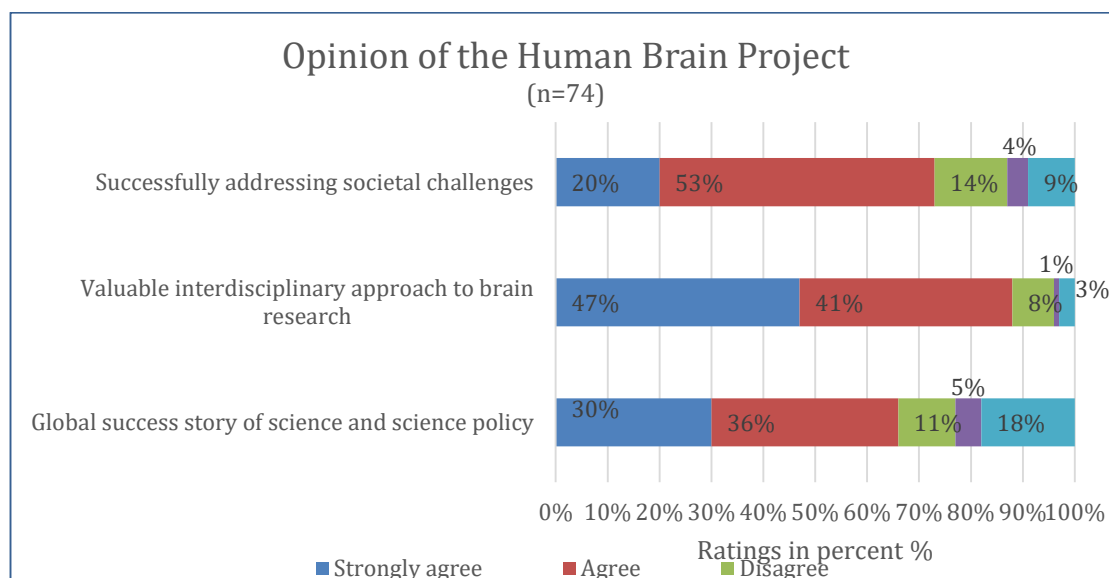**Figure 15: Perceived benefits of participation in HBP EP events (absolute numbers)**

Figure 16: HBP Education Programme Long-term assessment results of former event participants' opinions.

Overall, the results show that the objectives of the HBP Education Programme have been met to different extents over the course of RUP and SGA1

Figure 15 serves as a cumulative illustration of perceived benefits by event participants of different event formats, showing answer choices and numbers of responses per event type. Different measures to perfect the educational offers have already been implemented during SGA2 and the Programme will continue to assess its impact to ensure maximum benefit for its participants.

In relation to KR11.12 and regarding each participants' response on their opinion of the HBP, the majority agreed that the project is an example of EU funding successfully addressing societal challenges, offering a valuable interdisciplinary approach to brain research and is a global success story of science and science policy (Figure 16).

Full report can be obtained here: https://sos-ch-dk-2.exo.io/public-website-production/filer_public/23/43/2343d9a0-37ce-4050-954a-f97b8b97afe4/ms1156_ep_lta_report.pdf

6.2 Validation and Impact

6.2.1 Actual and Potential Use of Output(s)

Follow-up information from interested participants was collected at the HBP exhibition booths and shared with the HBP Innovation Team to grow the existing database of contacts. Stated interests regarding HBP exploitation opportunities and other requests are shared with different groups in the consortium.

The results of the HBP Education Programme long-term assessment were analysed and will be used to make programme adjustments to improve benefit for participants and future HBP Infrastructure users.

The new website will provide a single-entry point to all EBRAINS brain research services. Projects using EBRAINS will be highlighted in a projects section and a news section will contain news announcements about releases, results and success stories from use of the Platform. Development of the EBRAINS website is expected to continue throughout the final phase of the Project.

6.2.2 Publications

There were no publications relevant to KR11.12 in the period M13-M24.

7. Key Result 11.15 Increase transdisciplinary scientific knowledge

7.1 Outputs

7.1.1 Overview of Outputs

7.1.1.1 List of Outputs contributing to this KR

- Output 1: Completion of the 3rd HBP Curriculum Teaching Cycle
- Output 2: Call for Expression of Interest released for 4th Teaching Cycle
- Output 3: HBP Education Lab visit Programme
- Output 4: Organisation of 4th HBP Student Conference and Workshop day
- Output 5: HBP Young Researchers Event in Belgrade, Serbia
- Output 6: Co-organisation of HBP Infrastructure training events

7.1.1.2 How Outputs relate to each other and the Key Result

One of the HBP Education Programme's objectives is to provide early career-researchers with transdisciplinary knowledge and skills and thus directly contributes to this KR with its events and activities (outputs). These outputs in turn complement each other in regard to targeting a range of audiences and new HBP infrastructure users at different skill levels.

7.1.2 Output 1: Completion of the 3rd HBP Curriculum Teaching Cycle

The 3rd HBP Curriculum Teaching Cycle (TC) was completed. Six online courses on Interdisciplinary Brain Science, including courses on neurobiology, brain medicine, ICT, cognitive systems, research ethics and societal impact as well as IPR, translation and exploitation of research, were delivered and complemented by six in-person workshops in: Innsbruck, Graz, Jülich, Munich and Glasgow. A total of 185 attendees contributed to the workshop series (99 participants, 64 faculty members and 22 organisers). SGA2 M20 Deliverable D11.5.1 (D72.1 D107) on the 3rd Curriculum Teaching Cycle shows all details about the workshops and the evaluation results of the 3rd Teaching Cycle

7.1.3 Output 2: Call for Expression of Interest released for 4th HBP Curriculum Teaching Cycle

For the upcoming 4th Curriculum Teaching Cycle, an open Call for Expression of Interest was published on 19 Dec 2019. The Call is seeking scientific chairs for the upcoming workshops and is opened to both, HBP and non-HBP scientists. The proposals will be evaluated and selected by the Education Programme Committee at the beginning of SGA3.

7.1.4 Output 3: HBP Education Lab visit Programme

The HBP Education Programme offers lab visits for applicants to develop new technical or conceptual expertise for doing their research as well as their home institute's research programme. The target group are early career researchers who work within or outside the HBP.

Since M13, four additional Lab visits were added to the directory resulting in a total of 13 Lab visits offered at 11 different HBP partner institutions.

Respective lab offers are published on the HBP Education Programme's website (https://www.humanbrainproject.eu/en/education/participatecollaborate/lab-visits/) and interested applicants can directly contact the hosting labs.

7.1.5 Output 4: Organisation of 4th HBP Student Conference and Workshop day

The 4th HBP Student Conference on Interdisciplinary Brain Research was in Pisa, Italy from 21-22 Jan 2020. (https://www.humanbrainproject.eu/en/education/participatecollaborate/student-conference/4th-student-conference/).

Hosted by Egidio FALOTICO at Scuola Superiore Sant'Anna, Pisa, the conference attracted 94 attendees, including 9 keynote speakers and 4 organisers. (Figure 12). The programme consisted of 8 keynote lectures, 4 sessions for student oral presentations and one poster session daily. Photos and other materials were developed.

Seven keynote and 20 student presentations were recorded and will be added to the HBP Education Programme's E-library. The conference was planned by the Programme Committee consisting of seven young HBP researchers.

The Workshop also took place in Pisa, on 23 Jan 2020 following the 4th HBP Student Conference. (https://www.humanbrainproject.eu/en/education/participatecollaborate/student-conference/4th-student-conference/4th-hbp-student-conference-workshop-day/).

Conference participants attended for free. 33 participants were trained by 13 tutors during hands-on parallel sessions on HBP-related infrastructure, such as; large-scale neural network simulations, introductions to the Neurorobotics Platform, the EBRAINS data sharing service and to EBRAINS/FENIX compute resources, how to run spiking neural network simulations on SpiNNaker, and Towards responsible use of technologies.

7.1.6 Output 5: HBP Young Researchers Event in Belgrade, Serbia

The annual HBP Young Researchers Event took place on 9 Jul 2019, prior to the FENS Regional Meeting in Belgrade, Serbia. This event was open to the scientific community, but targeted early-career researchers in non-EU countries. There were 90 attendees, including speakers, and discussions were held on EBRAINS - a collaborative platform for computational neuroscience (Figure 13). A local TV team was present (see link below).

Website:
https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-trainings/young-researchers-event-2019

TV clip:

http://www.rts.rs/page/stories/sr/story/125/drustvo/3585983/beograd-prestonica-nauke.html

7.1.7 Output 6: Co-organisation of HBP Infrastructure Training events

The following Infrastructure Training events were co-organised and supported by Task T11.5.4. Three trainings on the Brain Simulation Platform, 3D Atlasing, and on The Virtual Brain (TVB) were held in Warsaw, Poland on 31 Aug 2019 following the INCF's Neuroinformatics 2019 conference (https://www.neuroinformatics2019.org/training-sessions/). A total of 39 participants attended these trainings and became HBP Collaboratory users.

An additional training on the Brain Simulation Platform was co-organised with the scientific chair Michele MIGLIORE (CNR) and Katri WEGELIUS (UH) at the University of Helsinki, Finland, on 7-8 Oct 2019. 24 participants were trained by 4 tutors during this 2-day event.

A 3-day tool training on Elephant and Neo was held in Gif-sur-Yvette from 4-6 Nov. 2019. 22 participants from the local community and other institutions worked on their own data or test data sets and appreciated individual assistance on the HBP workflows. This first Elephant User Training was co-organised with the scientific chairs Andrew DAVISON (CNRS), Michael DENKER (JUELICH), and Samuel GARCIA (CNRS).

During the Heidelberg Brain Days, 26-28 Nov 2019, 3 co-organised training events were offered:

- The FAIR data sharing workshop offered step-by-step curation support to data owners and interested users.

- The 2nd HPAC Platform Training offered 22 participants insights into several services and tools offered by EBRAINS and explained how to apply for compute intensive service parts.

- The series of annual CodeJams celebrated its 10th anniversary and again brought together several developer groups from across the Project to work on different topics and projects. The 67 participants enjoyed the Heidelberg Brain Days and the opportunity to exchange ideas with each other. (Figure 14).

The Hackathon "Cerebellum Modelling" from 12-15 Jan 2020 in Pavia, Italy was supported by T11.5.4 remotely. Egidio D'ANGELO was part of the scientific chair and the local organisation was done by

Simona TRITTO (University of Pavia, Italy). 63 participants joined the 3-day Hackathon – impressions and presentations can be accessed via offered links (see Table 3 in the Annex I).

7.2 Validation and Impact

7.2.1 Actual and Potential Use of Output(s)

The HBP Education Programme organised and supported 36 events in 14 different countries with an average representation of 10.5. countries per event. (Figure 17).

A total of 35 lectures were recorded across the workshops and will be made available on the HBP Education Programme's E-Library and youtube channel to make the contents of the workshops accessible to a wider audience. (https://education.humanbrainproject.eu/web/hbp-education-portal/documents).

Together with the Medical University Innsbruck, the HBP Education Programme Office has been offering ECTS credits for the participation in the HBP Curriculum since the beginning of SGA2. Participants can take an exam related to the online content of the courses. Upon successful completion, ECTS credits can be awarded.

Four new Lab visit opportunities for young researchers at HBP Partner institutions were added to the directory on the HBP Education Programme's website.

Figure 17: HBP Education Events in SGA2 (M1-M24)

7.2.2 Publications

There were no publications relevant to KR11.15 in the period M13-M24.

8. Key Result KR11.18 Improve the gender balance within the project

8.1 Outputs

8.1.1 Overview of Outputs

8.1.1.1 List of Outputs contributing to this KR

- Output 1: HBP Leaders' Commitment to Equal Opportunities and Inclusiveness
- Output 2: Gender as Criteria of Excellence for the Voucher and Education Programmes
- Output 3: 2-Day Curriculum Workshop in Graz
- Output 4: Gender and Diversity at the HBP Summit
- Output 5: Mentoring and Peer Groups

8.1.1.2 How Outputs relate to each other and the Key Result

The Outputs showcase selected achievements in each of the following areas of intervention as outlined in the Gender Action Plan (D11.2.10 (D69.10, D131) SGA2 M7)[1]:

1) Vision and Communication (see publications and HBP Leaders' Personal Commitment)
2) Structure and Processes (HBP Leaders' Commitment, Gender as Excellence Criteria)
3) Research and Lectures (2-Days Workshop in Graz, Gender at the HBP Summit)
4) Individuals, Teams Leaders (Mentoring and Peer Groups)

The Gender Action Plan (GAP) is based on a holistic approach and was addressed by reviewers as "most laudable document that risks being shelfed". As demonstrated, the GAP, in contrast, could be implemented successfully. All detailed planning has been carried out using the agile methodology, in collaboration with the Gender Advisory Committee.[2]

The main impact related to these Outputs must be attributed to the Science and Infrastructure Board (SIB). The SIB invited the Coordination of Gender Equality Activities Task (T11.2.5) to its meetings and sought advice on how to improve the gender balance. The result was an increase in the number of women in leadership positions proposed for SGA3 as compared to SGA2 (see "validation and impact").

8.1.2 Output 1: HBP Leaders' Commitment to Equal Opportunities and Inclusiveness

Based on the shared understanding of gender and diversity in the HBP, the Coordination of Gender Equality Activities Task T11.2.5 was invited by the SIB to collaborate with the GAC on concrete action HBP Leaders can take to enhance equal opportunities. Based on several presentations and an open dialogue, the SIB representatives signed a letter called HBP Leaders' Commitment to Equal Opportunities and Inclusiveness. It comprises a vision, the mission to follow the cascade model saying that women and men are expected to be represented at each career level in proportion to the level

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[1] https://sos-ch-dk-2.exo.io/public-website-production/filer_public/d9/4c/d94cac91-8eba-4812-8163-d0690847b4b2/sga2-gender-action-plan.pdf
[2] https://www.humanbrainproject.eu/en/about/gender-equality/gender-advisory-committee/

below. Additionally, a list with 20 actions to check on a regular basis[3], like reference statistics, hiring procedures, work distribution and measures to counteract unconscious biases. The letter received positive feedback from the HBP Ombudsperson Krista VARANTOLA and was shared with the Ethics Rapporteurs.

8.1.3 Output 2: Gender as Criteria of Excellence for the Voucher and Education Programmes

The Voucher Programme and Calls for Expression of Interest (CEoIs) signalled to potential partners that gender and diversity are taken seriously by the HBP. Criteria for excellence was developed highlighting gender in team compositions and research content. The criteria were integrated in the proposal templates and contribute 10% to the evaluation of excellence. Among the awarded proposals, the percentage of women leaders has increased from 30% to 38%.

Every Call for Expression of Interest launched by the HBP Education Programme Office (EPO) includes recommendations for the composition of speakers. Unless proposers can provide compelling reasons for having a single-gender faculty, such proposals were not considered for selection. Upon availability of funds, the EPO also offers financial support for participants coming from lower-income European countries. Here, preference is given to the underrepresented gender upon equal qualification.

8.1.4 Output 3: 2-Day Curriculum Workshop in Graz

In the 2-days Workshop "Neuroscience, Robotics, AI and Medical Informatics: New insights with diversity & ethics"[4] scientists from neuroscience, robotics, AI and medical informatics provided insights on how they consider variables such as sex, gender and age in their research. Additionally, experts in ethics and diversity introduced Responsible Research and Innovation (RRI) concepts and their practical application. In close collaboration with the education programme, the Coordination of Gender Equality Activities Task (T11.2.5) was responsible for the scientific content and organisation, facilitation, a diversity session, and the special design for the best poster award[5] encouraging all participants in an dialogue on interdisciplinarity and diversity in research via guiding questions and an evaluation sheet.

The scientific background of the event was outlined in Grasenick, K. (2019). Same, same – or different? Common Challenges in Neuroscience, AI, Medical Informatics, Robotics and New Insights with Diversity & Ethics. The Neuroethics Blog. Retrieved on Feb. 23, 2020, from

http://www.theneuroethicsblog.com/2019/09/same-same-or-different-common_10.html   PLUS Dissemination ID: 1154

8.1.5 Output 4: Gender and Diversity at the HBP Summit

The HBP Summit provided an excellent opportunity to have the winners of the "Diversity in Research" award present and discuss their research in a plenary session. (Figure 19) Terminology and examples which were provided with the open call are available at the HBP website:[6] .

Following the "gender at conferences" strategy, the Coordination of Gender Equality Activities Task (T11.2.5) was part of the programme committee and contributed to the summit with a booth

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[3] https://sos-ch-dk-2.exo.io/public-website-production/filer_public/4f/c2/4fc244ad-80cb-4d35-bc74-7b9089c8674f/hbp_leadership_checklist_191101-1.pdf
[4] https://www.humanbrainproject.eu/en/education/participatecollaborate/curriculum/workshops/3rd-curriculum-workshop-ethics/
[5] https://www.ethicsdialogues.eu/2019/10/14/same-same-or-different-new-insights-with-diversity-and-ethics/
[6] https://www.humanbrainproject.eu/en/about/gender-equality/measures-and-materials/

(disseminating Vision, Mission, Checklist for leaders), a poster, a plenary presentation of GAC achievements presented by the chairs, a parallel session and the town hall meeting. (Figure 18)
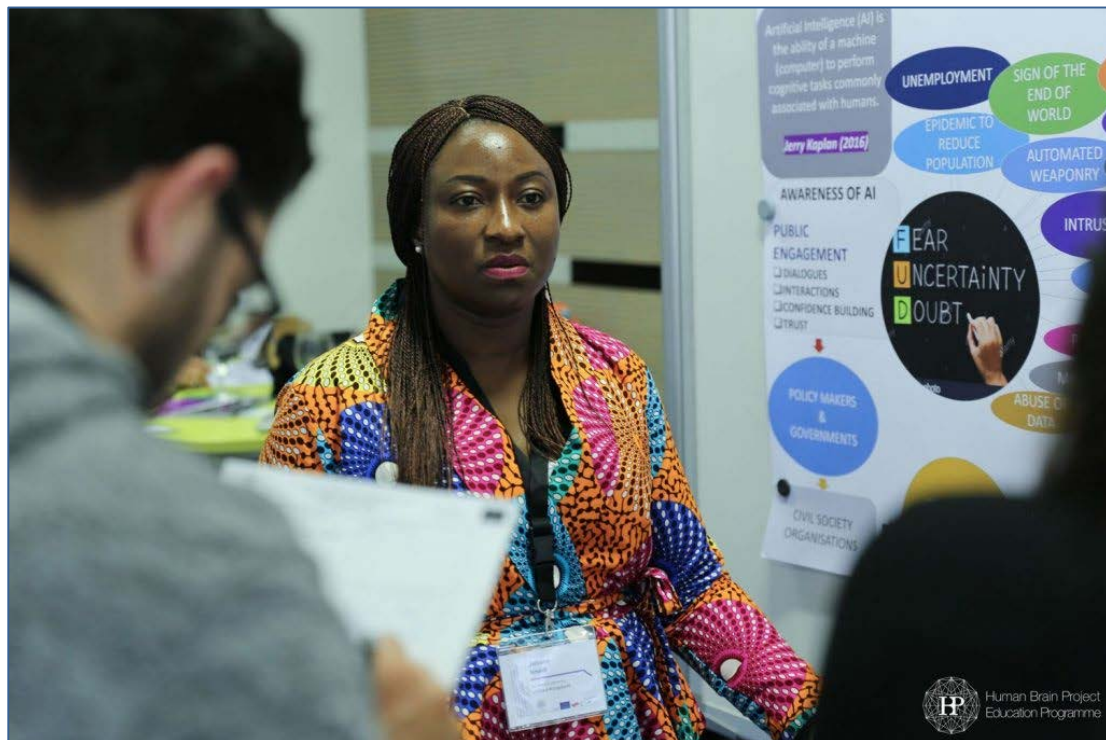

Figure 18: Juliana NNADI Answering Guiding Questions on Diversity in Research

Figure 19: Ceremony and Lectures by Diversity Award Winners at the HBP Summit 2020

8.1.6   Output 5: Mentoring and Peer Groups

Based on the concept for HBP mentoring and peer groups developed in close collaboration with the GAC and reported during M1-M12, 17 mentoring partnerships were supported via a detailed matching process, guiding materials and personal advice. Concept and guiding materials are available at the

HBP Website. The feedback received by either mentor or mentee (11 women, 6 men across all SPs, Managers and Scientists) was consistently positive.

A concept for PIs, enabling them to advice peer groups, to engage in questions and answer sessions for career advice, was tested at the EYRE in Belgrade (appr. 100 participants, positive feedback). Support for the peer group career sessions with the data curation team started in Feb 2020.

8.2 Validation and Impact

Outputs were validated via: Questionnaires (curriculum workshops), mini surveys (mentoring), feedback dialogues (bilateral, at meetings, parallel session at the HBP Summit).

Essentially, the Outputs contributed to an increase of women in leadership positions: In SGA1, 13.9% of 72 Work Package leaders were women. This rose to 15.6% of 77 Work Package leaders in SGA2. In SGA3, the equivalent level of SGA2 Work Package leaders will be Task Leader and 31% of the 90 positions already attributed are filled by women. The latter value is almost equal to the proportion of all researcher positions held by women in the HBP during SGA2, which was 32% (±2%). Moreover, in SGA3, 3 of the 9 (larger) Work Packages Leaders will be women (33% compared to women in the equivalent Sub-project leadership position during SGA2, which was close to 17%). Additionally, the number of women scientists in leadership positions increased in the Voucher programme.

8.2.1 Actual and Potential Use of Output(s)

The Outputs of SGA2 can be perceived as successfully tested prototypes used throughout the HBP and publicly available for similar projects. They form an important baseline for SGA3 and the AISBL. To achieve sustainable results, they will be adapted according to the significant changes for SGA3 and expanded. The gender monitoring and evaluation approach has been accepted for publication: Magdalena Kleinberger-Pierer, Simon Pohn-Weidinger, Karin Grasenick: Fair projects – bad data? Evaluating the gender balance in science projects. FTEVAL Journal for Research and Technology Policy Evaluation (*in press*, 2020 – will be published after SGA2).

8.2.2 Publications

There were no publications relevant to KR11.15 in the period M13-M24.

9. Conclusion and Outlook

In contrast to year 1, the SP11 Compound Deliverable for year 2 is a public document that is focused on those KRs that are of public interest, such as: outreach, education and dissemination, innovation and exploitation of results and the succession planning for the HBP beyond the lifecycle of the Project. The Month 24 Report will highlight the achievements of the internal facing KRs, as well as those of public interests. Marked progress was made across the selected KRs for this reporting phase.

In year 2, good progress was made in advancing the tools and frameworks for research translation and commercial exploitation of results. Several incremental steps were taken towards this goal in year 1, such as completion of the Exploitation Plan, the push to create National Innovation Hubs, roll-out of the Technology Maps and expansion in the services offered by UPM to promote the commercial exploitation of HBP results. In this phase, many of these efforts were consolidated. For example, a transversal innovation management plan was initiated to support the exploitation of the HBP results. Based on the three strategic pillars of technology transfer, innovation training and the promotion of national industrial hubs, an exploitation policy was developed to help disseminate the principles that would drive the approaches to the exploitation of results. The technology catalogue was also updated and improved and now includes a new TRL assessment checklist guideline.

Similarly, there was marked improvement both in terms of the qualitative and quantitative elements under education and outreach. A long-term evaluation of the HBP Education Programme's activities

(Ramp-up Phase (RUP) and SGA1) was conducted and the [results](#) were presented[7]. There were increases in a number of activities including: the number of workshops and training events, number of lectures recorded for ongoing dissemination via the HBP Education E-Library, the number of lab visits opportunities available at Partner institutions, and the number of infrastructure training events held and tutorials developed to support these activities. Additionally, there was participation in several high-level events, such as: Open Day & Summit in Athens, public events in Heidelberg, the Bundestag Exhibition, Museum Exhibitions in Jerusalem and Warsaw and a national event in Amsterdam.

Looking forward, the outreach support team in HBP will continue to organise impactful events, monitor national events and provide support to HBP visibility at high-level conferences.

The HBP Education Programme is coordinating its activities to assure a smooth transition into the next project phase of SGA3. It has organised and executed numerous activities and events contributing to enhancing interdisciplinary brain research, especially targeting early career researchers. A thorough evaluation of online courses and workshops was done to improve the contents for the upcoming teaching cycles. Future open calls for workshop proposals will have an increased degree of interactivity and hands-on introductions to the HBP Platforms, all of which will connect the Curriculum format participants closer to the EBRAINS infrastructure offers in SGA3.

The HBP Education Programme will continue to offer activities supporting the take-up of EBRAINS, training new users of the EBRAINS infrastructure and connecting young researchers from within and outside the HBP.

PLUS services have improved considerably how the Project has collected, tracked, analysed and reported on several elements, including; components, publications, dissemination and users. While the latter module is new, it has allowed the HBP to effectively track the users of Project Components. This tool will have an important role in the coordination, quality control and reporting activities in SGA3.

Perhaps, the most critical highlight during this phase was the formation and emergence of the AISBL EBRAINS, the new coordinator-designate of the HBP in SGA3. This entity will eventually assume the role of Project coordinator and begin planning the future evolution of the HBP.

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[7] https://www.humanbrainproject.eu/en/education/participatecollaborate/testimonials/

Appendix I: Key Results in SGA2 Amendment 3

Table 2: List of Key Results for SP11

KR No.	Key Result
KR11.1	Defined governance protocol for HBP
KR11.2	Timely submission of a coherent SGA3 Grant Agreement to the EC
KR11.3	Submission of quality reports, amendments and deliverables to the EC
KR11.8	Improved exploitation of results from HBP
KR11.10	Setting up the HBP Legal Entity (LE)
KR11.11	Support the definition and development of the Research Infrastructure and its user-base
KR11.12	Increase public knowledge about HBP, its objectives and achievements
KR11.15	Increase transdisciplinary scientific knowledge
KR11.18	Improve the gender balance within the project

Table 3: Additional links related to organised and supported RI training events.

Event	Link to	URL
1st National Workshop HPC per HBP Italy, 20 Jun 2019, Bologna, Italy	Event Webpage	https://eventi.cineca.it/en/hpc/soluzioni-hpc-le-neuroscienze/bologna-20190620 Agenda: https://eventi.cineca.it/sites/eventi/files/1o_workshop_nazionale_hpc_per_hbp_italia_agenda_0.pdf
Event	**Link to**	**URL**
9th Spinnaker Workshop, 9-13 Sep 2019, Manchester, UK	Event Webpage	https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-trainings/ninth-spinnaker-workshop-2019/
	Event Materials	http://spinnakermanchester.github.io/workshops/ninth.html
Event	**Link to**	**URL**
1st Elephant User Workshop, 4-6 Nov 2019, Paris, France	Event Webpage	https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-trainings/1st-elephant-user-workshop-accelerate-structured-and-reproducibl/
	Social Media	@PyElephant
Event	**Link to**	**URL**
2nd HPAC Platform Training, 26-28 Nov 2019, Heidelberg, Germany	Event Webpage	https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-trainings/2nd-hpac-training/
	Event Materials	Agenda: https://flagship.kip.uni-heidelberg.de/jss/HBPm?m=showAgenda&meetingID=190 Presentations: https://www.humanbrainproject.eu/en/education/participatecollabo

Event	Link to	URL
		rate/infrastructure-events-trainings/2nd-hpac-training

Event	Link to	URL
CodeJam#10, 26-28 Nov 2019, Heidelberg, Germany	Event Webpage	https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-trainings/codejam10/
	HBP Collab	https://wiki.humanbrainproject.eu/bin/view/Collabs/codejam-10-building-a-tool-with-a-notebo/
	Event Materials	https://flagship.kip.uni-heidelberg.de/jss/HBPm?m=showAgenda&meetingID=175

Event	Link to	URL
Hackathon Cerebellum Modelling, 13-15 Jan 2020, Pavia, Italy	Event Webpage	https://www.humanbrainproject.eu/en/education/participatecollaborate/infrastructure-events-trainings/hackathon-on-cerebellum-modelling/

Event	Link to	URL
OpenMR Benelux 2020, 21-23 Jan 2020, Nijmegen, the Netherlands	Event Webpage	https://openmrbenelux.github.io/page-openmrb-2020/
	Event Materials	https://github.com/OpenMRBenelux/openmrb2020-hackathon