The HBP SGA3 Calls for Expression of Interest
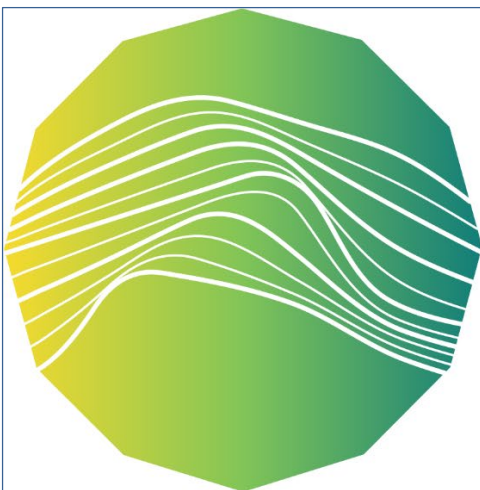# *"EBRAINS Service for Sensitive Data (EBRAINS SSD)"*

Guide for Applicants

Project Number:	945539	Project Title:	Human Brain Project SGA3

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More information:	info@opencalls.humanbrainproject.eu

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1.   The Human Brain Project

The Human Brain Project (HBP, https://www.humanbrainproject.eu/) is an ambitious 10-year scientific research and infrastructure initiative that is part of the EU Future and Emerging Technology (FET) Flagship programme[1]. The HBP is developing the European Brain Research Infrastructure (EBRAINS), an innovative ICT[2] infrastructure that will help neuroscientists and clinical researchers integrate data and knowledge about the brain across all levels of its spatial and temporal organisation. Using detailed digital representations, reconstructions, and simulations, it aims to make available ICT tools to thousands of researchers to advance and accelerate our understanding of the functioning of the healthy and diseased human brain[3].

With the EBRAINS Research Infrastructure (https://ebrains.eu), HBP aims to contribute to improving and maximising access to and re-use of research data while balancing openness and protection of scientific information, privacy concerns, security, commercialisation and Intellectual Property Rights (IPR) as well as data management and preservation[4].

2.   Scope of the specific Call

2.1   Challenge

The aim of this Call for Expression of Interest is to establish EBRAINS Services for Sensitive Data (EBRAINS SSD) as a part of the EBRAINS Research Infrastructure. The EBRAINS SSD shall 1) serve multinational research consortia in Europe, in support of basic, clinical and translational research in the diverse fields of neuroscience, 2) deliver services and tools required to work efficiently across countries with research on sensitive neuroscience data (directly identifiable or pseudonymised data), including collaborative sharing, collecting and analysing sensitive data. The EBRAINS SSD should also define routes for public sharing of its outputs (anonymised data and results) through the EBRAINS Data and Knowledge services.

2.2   Target Groups

The target groups are institutions or companies that are currently developing and hosting services for sensitive data aimed at academic and clinical research. Non-HBP partners or HBP partners are eligible for funding under this CEoI, however, at least 80% of the proposal budget must be assigned to non-HBP partners, while the HBP partners should not account for more than 20%.

2.3   Details

2.3.1   Underlying principles

The underlying principles for the full solution are 4-fold:

- FAIR data: the solution needs to ensure that data is findable, accessible, interoperable, and reusable. As this is the main underlying principle for data handling in EBRAINS, the solutions developed there can be reused. In short, this means that metadata is separated from the actual

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[1] https://ec.europa.eu/programmes/horizon2020/en/h2020-section/fet-flagships
[2] ICT, Information and Communication Technology
[3] The Human Brain Project - Synergy between neuroscience, computing, informatics, and brain-inspired technologies. Amunts K, et al., PLoS Biol. 2019 doi: 10.1371/journal.pbio.3000344.
[4] The Human Brain Project: Responsible Brain Research for the Benefit of Society. Salles A, et al., Neuron. 2019 doi: 10.1016/j.neuron.2019.01.005.

data, allowing searching without accessing the data, while interoperability is guaranteed by employing the open Metadata Initiative for Neuroscience Data Structures. Next to this, the metadata are stored as an unlimited graph allowing infinite expansion of the metadata and linking.

- Data stores with associated processing capabilities. As data are only valuable when actionable, typically meaning that data are used in compute intensive analytics, training or model simulation, the EBRAINS solution provides a notion of co-locality of the data with computing resources. The actual location is transparent to the users given that they will typically access the data on the platform through the provided tools and services.

- Multiple data stores. By employing the 2 above-mentioned principles, the platform natively supports multiple data stores. These can provide dedicated or specialised processing or security.

- Open standards. Wherever available, open standards will be used for protocols, data formats, encryption, etc. This will maximise the interoperability of the solution and cater for future expansion.

Additionally, a federated approach is supported on the same baseline (meta-data graph and co-location of compute and data). This allows the solution to seamlessly work with data made available in hospitals through other data stores outside the EBRAINS network.

2.3.2   Overview
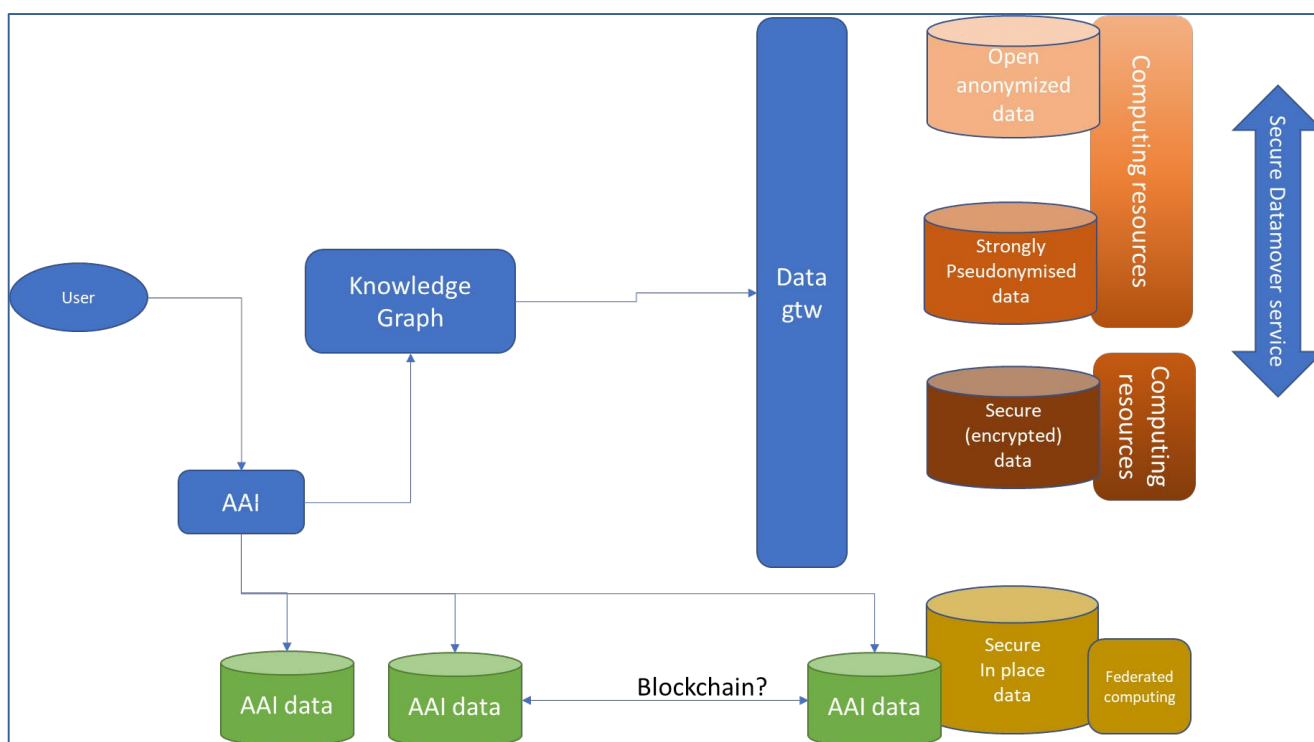
The above picture represents the main components of the EBRAINS data solution.

The solution provides an **Authentication and Authorisation Infrastructure**. This can be based on account authorisation as currently used on the EBRAINS RI, but this infrastructure will be enhanced to use external identification services and other authorisation resources to provide fine-grained access control to services and data.

The notion of service and data is important as the platform ensures that the authorisation on the services acting on the data must be at the same level as the access requirement for the dataset, thus ensuring no unauthorised processing of said datasets.

Once a user is identified and authorised to use the platform, all requests (searches, service invocation, code) have to go through the EBRAINS **Knowledge Graph**.

The EBRAINS Knowledge Graph is a central component in the EBRAINS RI and provides implementation of most of the FAIR principles.

For the EBRAINS Knowledge Graph to provide the same level of service for all types of data, it will be extended to provide 3 levels of results for search queries, via the website or API calls.

These are:

- Open data: all meta data are searchable and once selected the link to the data is available. This is the default behaviour for research data.

- Findable data: some datasets can be found (its existence shown). The user may have rights to see all metadata or only parts of the metadata. Access to the data will be controlled.

- Hidden data. If the search or access request contains privacy sensitive data and the user does not have the rights to see this data, it will be hidden from the results and the user will never know there is a dataset.

This type of fine-grained access control requires access right to be written in safe and immutable records. The control should always remain with the original data controller (owner/custodian). It is considered that a blockchain technology might be useful specifically for personal medical records or other identifiable information.

The 3rd component of the solution is the **data gateway**. This component is responsible for ensuring that all data access is logged, and all service invocation are using the same credentials as the user. It will use the same AAA records to verify all access requests. This component is also responsible for ensuring that data can be decrypted at platform level. More on that in the next paragraph.

Lastly, the data are stored in data centres or compute centres. We do envision that data will always be stored co-located with computing resources that can host the services or code to act upon that data. Thus, the data in the secured storage should also never be moved by the user and we do not envision any user to be able to download the data for processing. Should the compute resources not provide enough capacity or capabilities for the required processing, a secure '**datamover service**' can transport the data encrypted to another data centre where such compute services are available. This will be a batch service. We envision the platform to be ubiquitous and intelligent such that data moves are seldom needed.

For secure data, the data at rest will always be encrypted. The platform will closely follow encryption standards and provide at all time the best security available for the class of data.

Two services are envisioned for encrypted storage of data:

- Secured data centres that provide a full end-to-end encryption and encapsulation of data and services. These data centres will thus be responsible for the encryption and decryption without external control over those services.

- Platform level encryption. In this case the platform will provide encryption and decryption service without relying on the capabilities of the data centre. This will be used in less secure data centres, or those that do not provide adequate levels of encryption. This means that for the data centre the data are always encrypted and cannot be decrypted. In order to process the data, a secured virtual machine will be instantiated that will contain the data and the service code. Data will be decrypted in the virtual environment and processed, after which the results will again be encrypted, and the virtual machine deleted without leaving any trace of the data. (in memory data storage is preferred where possible).

The underlying principle is that data stay in place and the code will visit the data. This principle is developed and being refined in HBP and will be fully part of the EBRAINS RI and the BHDS powered by it.

Finally, based on the federated technology developed in the HBP under the MIP programme, the platform will also allow to process full **federated data,** such as those residing in hospitals.

Building on all the same components as before (Knowledge Graph as master index, the AAI service and the fine-grained access control data) the federated systems provide small scale computing at

the same level as in a secure data centre bay using the same principle on a finer and smaller scale: 'code visits the data'.

Note that in essence, the whole platform is federated, as multiple (indefinite) data centres can be connected to the platform. The underlying principle allows the solution to find and act upon data that reside outside of the EBRAINS RI platform, both large (data centres) and small (hospitals), if these do abide the same open standards and provide the necessary access.

If the proposed solution is software based, or contains software components that can be installed on the EBRAINS RI, it is expected that these would comply to the EBRAINS software deployment and quality requirements (available on request by contacting the HLST at support@ebrains.eu). The proposal should provide information about this aspect.

2.4 Specific requirements

The new EBRAINS Service for Sensitive Data SSD is expected to build on an already established GDPR-compliant service for sensitive data. The characteristics of the already established service should be briefly summarised in the proposal and outlined in more detail in a system description / white paper added as an Appendix to the proposal. Information should also be provided on the strength and engagement of the community of users and partners around the already established service, as well as the approach taken to help troubleshooting and/or improve usage (and implementation) of the service. EBRAINS SSD is expected to respond to relevant requirements, including:

1) Infrastructure requirements

- Secure data uploading / transfer and data encryption, with automated monitoring (auditing)
- Data kept within the system behind firewall allowing only authenticated and authorised access, or distributed storage securely connected to the service.
- Strict data and user separation between projects defined by the SSD provisioning system, including 2 factor login for all users (including sysadmins)
- Access to computing resources available for processing (including HPC resources if offered) and storage of the data and description of how this can scale with increasing needs, also at the individual project level
- A common workspace (e.g. virtual machine) within each specific project to transfer, analyse and share data
- Support for metadata standards
- Container-based software deployment (such as through Singularity or Docker) to allow users to deploy their own software
- APIs that enable platform interoperability and advanced programmatic interaction that fulfil the security constraints of data uploading / transfer, authentication and authorised access, with additional network access restrictions
- Regular (encrypted) backup of data to tape and a method for fast recovery (e.g. snapshots) Various levels of data handling including (1) Ability to specify granular access within projects, (2) ability to share specific data across projects and (3) ability to specify which project members have export privileges
- Business model for sustainable operation after the funding period
- A MVP available 10 months after the project has started
- Other requirements critical for the successful operation of the new service

2) Process and regulatory requirements

- Risk assessment available
- Data, user, and access policies and related agreements, including administration of consent for use of data

3) Requirements for software solutions

- Micro-services architecture with container orchestration
- Continuous integration and continuous delivery DevOps workflow

4) Optional requirements

- A basic software portfolio supporting analysis of neuroscience data, including BIDS–compatible tools
- Capture of data lineage and provenance, connected to existing EBRAINS provenance tracking
- Support for data cataloguing and dataset versioning, connected to existing EBRAINS metadata storage

The proposal is also expected to include at least one-use case / usage scenario for the proposed system, demonstrating how a consortium of researchers at different institutions in Europe will be enabled to perform collaborative research using the system. The use case should describe how the users / actors will accomplish a defined goal using the system.

3. Expected contributions and impact

Applicants are expected to provide a detailed description of the implementation of work plans within the defined timeframe (15 months, from 1 January 2022 to 31 March 2023), as well as plans on how to create sustainable services after the end of the project period, integrated in the EBRAINS RI.

Any duplication with existing HBP activities must be avoided.

4. Eligibility, integration in the work plan and budget

4.1 Eligibility criteria

- Submission of proposals by single institutions is possible. It is recommended, but not mandatory, that a group of partners[5] applies for the CEoI. The group should be represented by a project coordinator with the principal investigator (PI) acting as the main contact person.

- Non-HBP partners[6] and HBP Partners are eligible for funding under this CEoI. However, at least 80% of the proposal budget must be assigned to non-HBP partners, while the HBP partners should not account for more than 20% of the allocation (based on direct costs on which EU contribution will be added in line with the H2020 funding rules for Research & Innovation Actions). Please note, a new unit[7] of an existing active HBP partner, not receiving any HBP funding in SGA3, is eligible to participate in the CEoI and can apply as a non-HBP partner. The same rule applies to former HBP partners not receiving any SGA3 HBP funding within SGA3 anymore (inactive Partners). This rule allows (but does not force) new units to directly start in close collaboration with already integrated units.

- Organisations that are currently under contract with HBP partners for the supply of products or services (for example: through a subcontract or a service contract) that are paid by SGA3 funds are not eligible for funding. According to EC rules, the supplier and partner statuses are mutually exclusive. Moreover, these organisations are not considered fully "external" in the spirit of a CEoI. It is the responsibility of the applicants to ensure that this eligibility criterion is met.

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[5] Partner = a university or organisation, not an individual
[6] Non-HBP partners are not yet part of the HBP Consortium, thus not yet receiving any HBP funding and would to join the Framework Partnership Agreement (FPA) via Amendment
[7] Unit refers to a laboratory or department of a university or organisation

- All proposals will be subject to the same evaluation criteria, whether they include HBP partners or not (see Proposal evaluation).

- The HBP has committed itself to improving equal opportunities. As such, we explicitly encourage applications from women and groups of applicants who have considered gender equality aspects in their group of applicants (see Equal opportunities).

- The proposal must be submitted via the HBP Open Call Platform. An eligibility criterion is that the proposal is complete and correctly filled in, respecting the submission procedures (see Section 5.2).

- The European Commission's (EC) eligibility and financial rules apply [8]. The new partner organisations must therefore be established in the EU Member States or Horizon 2020 Associated Countries.

4.2 Integration in the Work Plan

- Out of this CEoI, one (1) proposal will be selected for EU funding for the HBP SGA3 period. Project duration will be 15 months maximum (1 January 2021 – 31 March 2023), depending on the inclusion of the new partner in the Consortium, and has a fixed end date which is the end of SGA3, 31 March 2023.

- Activities to be undertaken within the frame of the selected project will become a new Task, integrated within the HBP Work Plan for SGA3. The project will be integrated in WP6. The selected partner organisations will be incorporated in the HBP Consortium. The new partners will be requested to sign the relevant agreements with the EC as well as the Consortium Agreement that regulates the relations between the Partners of the Consortium.

- The agreements with the EC include a Framework Partnership Agreement (FPA[9]) and a Specific Grant Agreement (SGA). The FPA Consortium Agreement applies to the Consortium during the entire Flagship period and is amended regularly for major changes. The addition of new Partners to the Consortium is subject to the approval of the required FPA Amendment by the HBP Stakeholder Board and the EC.

- Applicants will receive the final confirmation of project acceptance and funding only once approved for funding by the EC.

- Success in this CEoI should not be considered as a commitment by the HBP or the EC to continue funding the Partners after the end of the SGA3 period.

4.3 Available budget and budget planning of the proposal

- The requested budget must not exceed EUR 1,000,000 per proposal.

- The total budget per proposal refers to the direct costs (funded expenses) and does not include overheads/indirect costs (funded overhead). An additional 25% (overhead rate) of indirect costs following the H2020 funding rules for Research & Innovation Actions will be calculated automatically by the Open Call Platform and the sum will include direct costs (total call budget) plus 25% overhead (indirect costs), (see FAQ here[10]).

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[8] The countries eligible to apply are all the EU Member States and the H2020 Associated Countries. For eligibility of other countries, see http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/international-cooperation_en.htm and https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf.

[9] https://www.humanbrainproject.eu/en/about/framework-partnership-agreement/

[10] https://www.humanbrainproject.eu/en/collaborate/hbp-open-calls-frequently-asked-questions/

- Co-funding of approximately EUR 200,000 is requested. Co-funding needs to be mentioned in the proposal, not in the budget table. The provided co-funding information will be included in the FPA to show the contributions towards the HBP by each Beneficiary. Proposals with lower contributions are not *a priori* excluded, but must be justified.

- It is expected that the new partners have the operational capacity to carry out the activities related to the main objectives of this CEoI. Nevertheless, subcontracting is allowed but will be reviewed on a case-by-case base (see Financial Rules - H2020-amga[11]).

5. Application and proposal submission

5.1 Step 1: HBP contact phase

Please get in contact with the EBRAINS AISBL as soon as possible to discuss your idea, its feasibility and relevance. Please send an email to info@opencalls.humanbrainproject.eu and your request will be forwarded to relevant experts.

5.2 Step 2: Proposal submission

The proposal has to be submitted via the HBP Open Call Platform. The applicants are required to register a profile, enter the proposal information and partner data, and submit the proposal document as a PDF and the requested budget.

The applicants can edit the proposal before the deadline (e.g. submit revised versions); only the last version will be considered for evaluation. A pre-final version of the proposal should be uploaded at least 3 days before the deadline (by 17 May 2021), to avoid being unable to submit due to eventual technical difficulties during a last-minute submission. Please contact info@opencalls.humanbrainproject.eu when you need any support with your submission.

At the end of the submission page, the applicants will see a required checklist to self-evaluate the eligibility and admissibility of their application:

- I confirm that not more than 20% of the budget (EUR 200,000) is allocated to an internal partner

- I confirm that I did not allocate the co-funding to the online budget table

- I confirm that in the online budget table, the requested sum does not exceed EUR 1,250,000 (Direct Costs/total Call budget plus 25% Indirect Costs/Overhead)

- I confirm that the submitted proposal respects the instructed format and page limit in the Proposal Template

This step aims to support the applicants in submitting an eligible and admissible proposal. It is the responsibility of the applicants to ensure an admissible and eligible submission. Shortly after the submission of the proposal, an acknowledgement of receipt will be sent to the e-mail address of the proposal's main contact person, registered in the platform. Not receiving an acknowledgement receipt implies that the submission has not been received (in this case: contact info@opencalls.humanbrainproject.eu). Sending of an acknowledgement of receipt does not imply that a proposal has been accepted as eligible for evaluation.

For any given proposal, the proposal main contact person will act as the main point of contact between the proposal partners and the HBP.

It is the responsibility of the applicants to ensure timely submission; proposals submitted after the deadline will not be considered. Failure of timely submission of the proposal for any reason, including

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[11] https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf

communication delays, will automatically lead to rejection of the proposal. The time of receipt of the submission, as recorded by the submission system, will be authoritative.

Upon the Call deadline, the proposals have to fulfil the H2020 admissibility[12] and eligibility[13] criteria and the HBP-specific ones (see Section 4), in order to be retained for evaluation. In addition, the proposals have to strictly adhere to the template provided via the HBP Open Call Platform, which defines sections and the overall length. Excess pages will be removed from the proposals.

The HBP offers an email-based helpdesk system for applicants at info@opencalls.humanbrainproject.eu. Applicants are encouraged to use this facility for any queries in relation to the Call and the submission.

With the upload of the proposal template and the completion of the contact information, the applicants agree that partner(s) names, affiliations and proposal titles of the winning proposals (only) will be announced on the HBP website. Applicants also agree that their contact information will be recorded and that they may be contacted by the HBP for reasons not limited to this Call, but within the framework of the Human Brain Project.

6. Ethical issues

Research activities in Horizon 2020, and particularly in the HBP, must respect fundamental ethical principles as outlined in the Horizon2020_Ethics_Guidance[14].

If there are ethical issues specific to the proposal (see the ethical issue table in the Horizon2020_Ethics_Guidance[14]), before and during the runtime of the research activities within the HBP, an HBP Ethical Issues and Approvals survey must be submitted, including the documents that are required under national law (e.g. proof of approval by the competent authority).

The HBP Ethical Issues and Approvals survey should describe how the proposal meets the national legal and ethical requirements of the country or countries where the tasks raising ethical issues are to be carried out, and explain, in detail, how issues in the ethical issues table are addressed, in particular with regard to research objectives (dual use, etc.), methodology (protection of collected data, etc.) and potential impact of the research (dual use issues, benefit-sharing, misuse, etc.).

Applications, especially from non-European countries[8], must make sure to comply with the above Horizon2020 Ethics Guidelines and clarify ethical issues before submission of the proposal.

Proposers should demonstrate that they are mindful of the fact that the citizens of Europe trust the public R&D endeavour to produce tangible results benefiting society by advancing health, economic growth, and quality of life across all communities.

The applicants are responsible for ethical compliance. They will work with the HBP contact persons, the respective HBP ethics rapporteur and ethics support team to ensure compliance with ethical and legal requirements. Their ethics compliance will be included in the HBP ethics compliance management processes. An Ethics Pre-Screening will be performed prior to inclusion of new partners into the HBP Consortium.

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[12] https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf#page=5
[13] https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf#page=7
[14] http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

7. Equal opportunities

Gender equality concerns all parts of Horizon 2020 (see the Guidance on Gender Equality in H2020[15] and the Gender Equality Strategy "A Union of Equality: Gender Equality Strategy 2020-2025"[16]). HBP has committed itself to offer equal opportunities[17], especially to balance the proportion of male and female scientists in leadership positions, as well as among PhD students and post docs, but also to overcoming artificial barriers, prejudices or preferences. The HBP created the Gender Advisory Committee[18] which provides advice and feedback on the HBP Gender Action Plan on activities planned to improve equality in their respective areas of responsibility[19]. This document[20] shows guidelines[21] developed by the HBP for researchers.

The HBP aims to demonstrate how diversity drives scientific excellence, innovation, and collaboration and aims to become a European best practice example for fostering equal opportunities across different institutions, member states, disciplinary cultures, and intellectual environments.

In line with the European Commission (https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/gender_en.htm), applicants are encouraged to promote gender balance at all levels in their teams and in management structures. Applicants should seek at having a balanced participation, as close as possible to 50/50, of both men and women in the teams and among the leading roles (following H2020 recommendations[22]).

Equal opportunities represent an evaluation criterion (see Table 1). In their proposal, applicants have to outline which measures will be undertaken to foster equal opportunities:

i) see criterion 1 - in relation to content (e.g. analysing and taking into account the possible differences between men and women, sex of animals, cells or tissues in the research and innovation content of the proposed research project). Sex and gender might intersect with further diversity traits, such as age or culture. Additionally, research findings might have different implications for different user groups or stakeholders.

ii) see criterion 4 - in respect of human resources (e.g. the balance between women and men in the research teams, who will implement the project and how sex, gender or other diversity issues are addressed).

8. Proposal evaluation

All submitted proposals will be evaluated by acknowledged external research infrastructure experts and by reviewers from the broader scientific community (all referred to as 'experts'). To avoid conflicts of interest, the experts are independent of the HBP Consortium and the applicants. The conflict of interest rules for this Call are set out here[23].

Experts will **maintain strict confidentiality with respect to the entire evaluation process**. Experts perform evaluations in their private capacity, not as representatives of their employer, their country or any other entity. Under no circumstance may an expert attempt to contact an applicant directly,

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[15] https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/gender_en.htm

[16] https://ec.europa.eu/info/sites/info/files/aid_development_cooperation_fundamental_rights/gender-equality-strategy-2020-2025_en.pdf

[17] https://www.humanbrainproject.eu/en/about/gender-equality/

[18] https://www.humanbrainproject.eu/en/about/gender-equality/gender-advisory-committee/

[19] https://www.humanbrainproject.eu/en/about/gender-equality/measures-and-materials/

[20] https://sos-ch-dk-2.exo.io/public-website-production/filer_public/23/1e/231e7bc7-bd5c-4c90-92b1-35aa403f0f13/hbp_guideline_diversityinresearch_190204-1207.pdf

[21] https://www.humanbrainproject.eu/en/about/gender-equality/measures-and-materials/

[22] https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/gender/h2020-hi-guide-gender_en.pdf#page=10

[23] https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/pse/h2020-guide-pse_en.pdf#page=12

either during the evaluation or afterwards. Experts cannot submit an Expression of Interest (EoI) proposal for the Call they are reviewing.

The proposals evaluation will be performed in two steps.

In the **first step**, at least **three external experts** will review individually each proposal assigned to them. They evaluate each proposal considering the evaluation criteria in 8.1 – Table 1. The experts score each criterion (0 to 10, detailed in 8.1 –Table 2), with explanatory comments.

In the **second step**, the experts discuss and compare all proposals during a panel meeting. They establish the final ranking of the proposals, providing a list of proposals being above and below threshold (defined in Table 1). A proposal is eligible for funding if all thresholds are met or exceeded. However, the highest ranked proposal will be recommended for funding. If all proposals fall below threshold, no selection will be made and the CEoI might be reopened.

The experts will be advised by an invited group of HBP members of the Directorate (DIR) and WP leaders, who will clarify the procedure and need of the HBP prior to the evaluation, and offer their opinion on what is especially relevant for the specific Call, during a **kick-off meeting**.

The ranked list of proposals will be presented to the HBP Science and Infrastructure Board (SIB) and the DIR for endorsement. The selected proposal(s) will be funded and integrated into the HBP SGA3 Work Plan via Amendment.

To ensure transparency, the results of the evaluations will be made available to the EC prior to announcement and integration.

After completion of the Call, applicants will receive the evaluation summary report (ESR) for their proposal, showing the results of the evaluation for a given proposal. Any request for redress can only be based on procedural grounds and must be submitted by the proposal coordinator within 30 calendar days from the receipt of the official letter (Evaluation Summary Report).

Note: The addition of new Partners to the Consortium is subject to the approval of the required FPA and SGA Amendments by the HBP Stakeholder Board and the EC. Following this process, the partner(s) will be welcomed into the HBP Consortium.

8.1 Proposal evaluation criteria and scores

The evaluation criteria for this CEoI are provided in Table 1. The criteria reflect the expected impact of the project funded under this HBP CEoI. The evaluation will also be based on the content provided in the system description / white paper describing the already established service that the proposed new service will be based on. The white paper will be evaluated under criterion 3 'Implementation'. The proposal evaluation scores are provided in Table 2.

At the evaluation stage, equal opportunities for teams, gender balance in staff and diversity aspects in general (gender, age, career stage, other factors) will be considered as a ranking factor to prioritise the proposals above the threshold (see 4. Equal Opportunities in Table 1). Evaluators will compare the shares of men and women in the personnel named in the proposals and will rank a proposal with the share closer to 50/50 higher. Other explained taken measures for Equal Opportunities and Diversity can be considered in the same way as the number of men and women. A proportion of women considered in the proposal, similar to the proportion in similar scientific disciplines, is the expected bare minimum to be found in proposals.

Scoring

Scores for each evaluation criterion are in the range 0-10. Evaluators will be asked to score proposals as they were submitted, rather than on their potential if certain changes were to be made.

Thresholds & weighting

The standard threshold for individual criteria is **6**; no threshold is foreseen for the Equal Opportunities score. The standard overall threshold (including the Equal Opportunities score), is **6**.

Scores are weighted. The weight for each score is provided in Table 1.

Table 1: Proposal evaluation criteria

1. **Excellence**	**Weight: 30%**
• Credibility and soundness of the proposed plan, credibility of the proposed methodology and degree of conformity to provided specifications • Extent to which the proposed work is beyond the state of the art, and demonstrated innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models) • Quality and effectiveness of the detailed work plan (including appropriateness of tasks, milestones, and indicators to monitor progress) • Appropriate consideration of interdisciplinary approaches and, where relevant, use of stakeholder knowledge and gender dimension in research and innovation content. Regarding the gender dimension: in research activities where tissues, living materials and human beings are involved as subjects or end-users, differences based on sex, gender, age, health conditions etc. may exist. If applicable to the present research: are diversity factors like sex, gender, age etc. addressed as an integral part of the proposal?	*Score 1:* *../10* *(Threshold: 6/10)*
2. **Impact**	**Weight: 30%**
• Contribution to the design and development of EBRAINS Research Infrastructure • Any substantial impacts not mentioned, that would enhance innovation capacity, ability to create new market opportunities, to strengthen competitiveness and growth of companies, address issues related to climate change or the environment, or bring other important benefits for society • Quality of the proposed measures to exploit and disseminate the project results (including management of IPR) and to manage research data where relevant	*Score 2:* *../10* *(Threshold: 6/10)*
3. **Implementation**	**Weight: 30%**
• Quality and effectiveness of the work plan, including extent to which the resources assigned to the tasks are in line with their objectives and deliverables • Co-funding provided by the Partners (institutional staff, access to facilities, etc.) • Quality of the Organisations and of the group of applicants as a whole (including complementarity, gender balance, involvement of key actors, prior history, relevant experience of the individual partners) and extent to which the consortium as whole brings together the necessary expertise • Strength and engagement of community of users and partners around the technology. Availability of information that will help troubleshooting and or improve usage (and implementation) of the technology • Business model for sustainable operation after the funding period, including estimated costs of support, licenses, and future adaptations • Appropriateness of the management structures and procedures, including risk and innovation management	*Score 3:* *../10* *(Threshold: 6/10)*
4. **Equal Opportunities**	**Weight: 10%**
• Equal Opportunities for teams, diversity aspects (gender, age, career stage, other factors) must be considered: Are there measures in place and described in detail to enhance fair work distribution and equal opportunities for career development? Is the proportion of women scientists and contributors justified in detail? In case of an imbalance compared to the proportion of women in similar scientific disciplines, are measures planned to improve gender equality?	*Score 4:* *../10* *(NO Threshold)*
5. **Ethical implications and compliance**	**Mandatory**
• Ethical implications and compliance with applicable international, EU and national law	*No Score*

• Ensure that the study proposed will not promote indications that raise ethical issues		
OVERALL SCORE:		*Overall score: ../10* *(Threshold: 6/10)*

Table 2: Proposal evaluation scores

0	Not recommended for funding	The proposal fails to address the criterion under examination or cannot be assessed due to missing or incomplete information.
1	Unacceptable quality or serious concerns	The criterion in question is inadequately addressed by the proposal, or there are serious inherent weaknesses.
2	Poor	The criterion in question is poorly addressed by the proposal or the proposal has very few strengths and numerous major weaknesses that limit its impact.
3	Marginal	While the proposal addresses the criterion in question, there a several strengths and a few major weaknesses.
4	Fair	The proposal addresses the criterion in question and is potentially useful, but shows at least one major weakness.
5	Satisfactory	The proposal addresses all aspects of the criterion in question, some strengths but also some moderate weaknesses are visible.
6	Good	The proposal addresses all relevant aspects of the criterion in question in a reasonable way, but has at least one moderate weakness.
7	Very Good	The proposal addresses all relevant aspects of the criterion in question in a reasonable way, but has at least one or more minor weaknesses.
8	Excellent	The proposal successfully addresses all relevant aspects of the criterion in question. It is internationally competitive in parts. The proposal is very strong with a few minor weaknesses.
9	Outstanding	The proposal successfully addresses all relevant aspects of the criterion in question and is extremely strong with negligible weaknesses. The proposal is internationally competitive or of strategic importance.
10	Exceptional	The proposal successfully addresses all relevant aspects of the criterion in question and is exceptionally strong with essentially no weaknesses. The proposal is internationally competitive and leading edge or of exceptional strategic importance.

9. Additional information

You can find more information on the HBP here[24].

A list of Frequently Asked Questions (FAQ) is available here[25].