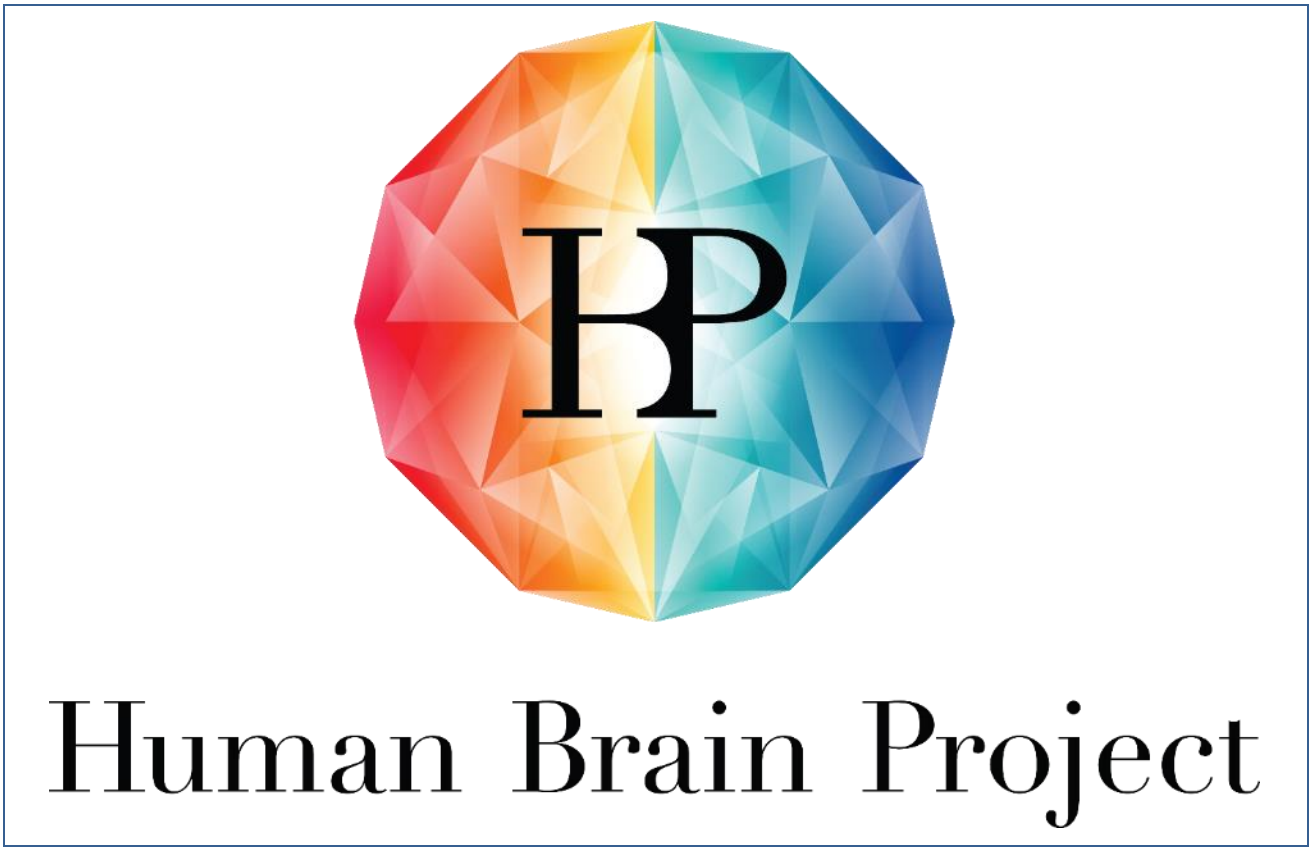
The HBP SGA3 Calls for Expression of Interest "Application of functional architectures supporting advanced cognitive functions to address AI and automation problems of industrial and commercial relevance"

Call Text



Project Number:	945539	Project Title:	Human Brain Project SGA3

Document Title:	HBP SGA3 CEoI – Application of functional architectures supporting advanced cognitive functions to address AI and automation problems of industrial and commercial relevance – Call Text
Document Filename:	HBP SGA3 CEoI - Functional Architectures - Call Text
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Abstract:	Calls for Expression of Interest for SGA3, Call Text
Keywords:	Functional neural models, modular functional architectures, multimodal perception, vision, scene understanding, decision making, planning
Target Users/Readers:	Applicants, all interested
Call Publication Date:	5 August 2020
Pre-proposal Submission Deadline:	16 September 2020 17:00 Brussels time
Proposal Submission Deadline:	16 October 2020 17:00 Brussels time
Proposal submission online platform	HBP Open Call Platform
Total Call Budget:	EUR 1,000,000 Direct Costs. Maximum funding per proposal: EUR 500,000 (plus 25% Indirect Costs), two proposals will be selected.
More information:	info@opencalls.humanbrainproject.eu

This CEoI targets organisations interested in the application of functional cognitive architectures to address AI and automation problems of industrial and commercial relevance, with special emphasis on vision.

The successful applicants will engage in collaboration with HBP Partners who will provide techniques and models supporting a number of cognitive functions including planning, decisions making, scene understanding and contextual awareness. Activities will involve the specialisation of developed functional techniques to allow addressing real-world AI and automation problems of industrial and commercial relevance. Special emphasis is placed on scene understanding, in support of safe man-machine interaction in an industrial robotics setting (cobotics). However, the pursued qualities of robustness and generalisability lend the technology relevance to a wider range of problems, including robust scene understanding in safety-critical applications, planning and decision making for unmanned mobile systems, with applications to monitoring and surveillance. The above (non-exhaustive) list of possible application examples address the sectors of industrial robotics, mobile robotics, automotive, and agri-food. Well-motivated applications to alternate sectors will receive consideration. The choice of specific problems to be addressed should be motivated by explicitly relating one or several of the aforementioned functions to the considered problem(s), articulating the industrial relevance of the problem(s), and providing a detailed discussion relating scope and ambition of the work to be conducted with available resources. The expected objective of the activity involves the development of mature, real-world solutions (no lower than Technology Readiness Level (TRL) 5, ideally up to TRL7), building upon HBP-developed brain-based technology.

It is expected that applying consortia include a partner from industry, who will actively drive problem definition. In addition, consortia should include a designated partner leading the technical work involved in specialising the developed technology to the considered problem, in the perspective of achieving the desired maturity level. Proposals with budgets of up to EUR 500,000 should be able to address the defined scope (two proposals will be selected). As successful consortia are expected to directly include the technical expertise necessary to raise maturity of developed solutions, HLST support is not anticipated.