

Evaluation Criterion: Excellence (technical and conceptual) 5 points

Check-List:

Is the proposed work, as described in the proposal, feasible in the technical and management sense? Are risks properly described and addressed?

Does the proposal give grounds to why generative AI serves as a solution to the problem, why the development of a new model is imperative and why the problem could not be solved sooner? Are potential obstacles identified along with approaches to overcome them?

Is the proposed approach explained in terms of the machine learning lifecycle: data preparation, model development/engineering and model evaluation¹. Furthermore:

Is a detailed description provided and a demonstration of the availability of a suitable training data set?

Are the characteristics of the models to be developed presented with sufficient detail, including type, size, hyperparameters, and architecture, and are their repercussions to training and exploitation outlined?

Is the selection of performance metrics for model evaluation, scaling, and optimisation clearly outlined and justified? Are benchmarks to establish baselines described, and methods to ensure experiment reproducibility specified?

Have potential risks been identified considering EU guidelines for trustworthy AI, including unfairness, bias, hallucinations, and model drift during the exploitation phase, and are means to address and mitigate them presented?

¹ Model exploitation/deployment/operation is out of scope.

Criterion Impact: Impact covering prospects for innovation, commercial viability, and exploitation plans 5 points.

Check-List:

Is the proposal fully aligned with the FFplus call objectives defined in the Call for Proposals for Innovation Studies for the Development of Generative AI Models? In particular:

Is the proposed work driven by the business needs of, and target business benefits for, the main participant (SME or Start-up) highly competent in generative AI, professional software development, and data processing and also proficient in HPC?

Is the current business situation of the main participant SME described in sufficient detail to allow an assessment of the expected impact and likelihood of achieving the business benefits targeted by the proposal?

Does the proposal explain why generative AI addresses the business challenge/opportunity, and if so, why the development proposed is necessary and timely?

Does the proposal demonstrate the potential to strengthen the technological development of European SMEs in the area of generative AI?

Does the proposal incorporate the use of large-scale European HPC resources (e.g. pre-exascale or exascale supercomputers) to develop and customise generative AI models such as foundation and large language models?

Does the proposal define specific objectives that must be achieved to successfully address the business challenge or business opportunity? Does the proposal present a vision of success, i.e. how using large-scale HPC will lead to positive business impact? If applicable, does the proposal define the value propositions and the process of value creation? Are key indicators defined such as revenue generated over recent years or the existence of a customer base? If the main participant is a Start-up, is an explanation of the expected business impact provided?

Will the proposed project support the FFplus project in the generation of success stories suitable for publication, including in multi-media form, discussing business benefits (e.g., additional income, new business models, decreasing cost), technical and business challenges, and societal and environmental impact, e.g. energy-to-solution improvement?

Evaluation Criterion: Implementation covering the work plan, the quality of the consortium and the effective and justified deployment of resources
5 points.

Check-List:

Is the work plan sufficiently clear and coherent, instilling confidence that the proposed work will be carried out effectively and will be directed towards achieving the objectives of the innovation study and the FFplus call?

Does the proposal include producing a pre-final results and potential impact report to be delivered by the end of the 7th month of the innovation study?

Comprehensive Data Management Plan: Is a data management plan presented that covers policies for data access, usage, sharing, retention, and disposal; outlines methods for protecting sensitive or personal data; and incorporates FAIR principles and their implementation when applicable?

Is the consortium as a whole well-qualified to carry out the proposed work? Is each consortium member, as presented in the proposal, qualified to carry out the work they are assigned? Is the assignment of that work clear?

Does the consortium contain the necessary partners with all the skills needed to carry out the proposed work? Are the roles of all partners clearly described, and does each partner have a significant and well-justified role? Are key personnel clearly identified and described? Are the contributions of supporting participants justified and also limited to technical/engineering activities (which are the only activities of supporting participants eligible for funding)? Are any types of partners missing?

Have appropriate resources (effort and budget) been allocated to members of the consortium in such a way that each of them has the required resources needed to carry out their part in the work effectively? Is the effort of each partner required for specific tasks clear? Has the major part of the requested budget (i.e. at least 50%) been allocated to the main participant? If this is not the case, is the budget distribution well justified?

Is the Resource Allocation (effort, budget, software licences or any subcontract) clearly justified? Does the proposal conclusively demonstrate how the allocated resources (personnel, IT/computing and any other resources) address and fill current gaps in the processes needed to implement the proposed action?

Is the resource allocation focused on technology developments, versus expenditures for supporting items, such as data or software purchases?

HPC resources: Does the proposal clearly explain the HPC resources (hardware, software, frameworks, and compute volumes) appropriate for the execution of the innovation study? Are the HPC resources needed defined, possibly using computing resources provided directly (free of charge) by the EuroHPC JU, e.g., through their AI Factories access scheme, or through national actions?

Will the development and customisation of generative AI models described in the proposal be expected to have the appropriate level of performance and parallel scalability to execute the most compute-intensive steps in the innovation study workflow? Does the proposal consider the performance characteristics of said developments and establish that their use is feasible on the proposed computing infrastructure or HPC services? Is that adequately described in the proposal?

[1]It is a requirement of all innovation studies that they deliver an intermediate report on the results achieved (and those expected by the end of the study) and the potential impact of those results on the SME's business model and potentially by third parties using the results. It will be used to evaluate the eligibility to submit a proposal for extension/continuation of the innovation study to a subsequent open call for proposals.

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