CONSENSUS EVALUATION REPORT

GENERAL OVERVIEW

Open Call Collection   *OC-2023-1*
Proposal Reference   *OC-2023-1-26347*
Proposal Title   *Sustainable Digital Transformation in Europe*
Proposal Acronym   *DigitalTransform*
Review Panel   *RP5: Transition towards green growth, circular innovation, and inclusive spatial development*
Evaluation Status   *Final*

EVALUATION

SUMMARY TABLE

S&T EXCELLENCE			NETWORKING EXCELLENCE			IMPACT			IMPLEMENTATION	Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
4	4	4	5	4	5	5	4	5	4	44

COMMENTS

S&T EXCELLENCE
Soundness of the Challenge

Q1 - Does the proposal demonstrate a comprehensive command of the state of the art in the field and present a relevant and timely challenge?	Mark
The proposal addresses this question in a very good manner. Main strengths: The research questions are well posed. The topics for the WGs are carefully chosen and interconnected. The Action will promote the digitalization of finance while ensuring that key policy objectives such as consumer and investor protection, fair competition and stability, continue to be achieved as the digital transformation of the financial sector continues. The proposal describes the problems of integrating advanced technologies in the financial sector. The status of information technology implementation in the financial sector and expectations regarding the impact of digital technologies on the financial services industry are carefully described. The key functions of finance in the future and related research activities are well described. The proposal declares actions aimed at overcoming the obstacles associated with the implementation of artificial intelligence in finance. The proposal also envisages the creation of an interdisciplinary, gender-balanced international research network with a focus on young researchers and innovators, which will lead to development of more effective and globally applicable solutions. The proposal would benefit from certain improvements: The state of the art needs to be stated in more detail:- A description of current data protection and fairness issues in finance can be explored in more detail; - Current applications of generative AI in	4

COST Association AISBL
Avenue du Boulevard - Bolwerklaan 21, box 2 | 1210 Brussels, Belgium
T +32 (0)2 533 3800 | office@cost.eu | www.cost.eu

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finance and its pitfalls should be stated; - state of the art in XAI in finance should be analysed in a more methodological set-up: current methodologies include feature importance and sensitivity analysis as well as local interpretability and model-agnostic approaches. Their utilization in financial applications should be better addressed; - state of the art of ESG in finance could also be explored in more detail.

Progress beyond the state-of-the-art

Q2 - Does the proposal describe an innovative approach to the challenge that advances the state of the art in the field?	Mark
The proposal addresses this question in a very good manner. Main strengths: The proposal highlights methods like differential privacy for ensuring data protection in finance and disparate learning processes and variational fair autoencoders to debias algorithms. In XAI, the WG would like to focus on interpretable decision trees for time series classification and attention mechanisms. In the proposal the differential privacy problem is described as the main one (to enable the examination of dataset characteristics related to a populations a whole, all while safeguarding individual privacy). The methods of working with financial data that will help to overcome it are described. Another well defined problem is fight against bias both on the data and methods side. Also the problem of the growing "trust" issues with complex models is highlighted. Given the application of generative AI in finance, the Action will develop end-to-end use cases that detail the entire process of building AI systems that include LLM for financial applications. The Action also envisages the development of solutions that will help increase confidence in complex financial models based on artificial intelligence, in particular, using the approach known as eXplainable artificial intelligence (XAI). These approaches sounds promising and have potential to lead to good results. The proposal has the synergy of multiple majors in order to create a strong basis for financial digitalization with participation from multiple countries. It could create comprehensive policies. The proposal would benefit from certain improvements: Description of challenges and progress beyond state of the art should be improved within topics surrounding the use of generative AI and the use of LLM. In finance, due to data-sensitivity issues as well as ethical questions, LLMs are already in place but the actual use of generative AI is still under discussion. Safe usage of generative AI within data privacy considerations and while observing equal opportunity goals through avoiding algorithmic discrimination shall be more deeply considered. Much attention is paid to the integration of complex mathematical concepts into finance, but little attention is paid to environmental and social risk management systems, procedures for identifying, measuring, monitoring, controlling, reporting and mitigating environmental and social risks, etc.	4

Q3 - Are the objectives presented relevant to the challenge, clear and ambitious?	Mark
The proposal addresses this question in a very good manner. Main strengths: The proposed objectives are well composed and take into account the goal to share knowledge and find synergies among participants. This is especially visible in objectives RC1, RC2, RC4 and RC5. The project goals are clear, specific, smart, and in line with the project's scope. The works to be carried out within the framework of the proposal contain clear explanations of how the problems will be solved. The proposal would benefit from certain improvements:	4

The research objectives (esp. RC 7 and RC 8) would benefit from clarification, especially how international coordination is vital to these objectives. An objective which includes dissemination of research results to public or stakeholders could have been better explored. For some project goals, there may be a problem of measurability.

NETWORKING EXCELLENCE

Added value of networking in S&T Excellence

Q4 - Does networking bring added value in tackling the challenge in relation to existing efforts at the European and/or international level?	Mark
The proposal addresses this question in an excellent manner. Main strengths: Prior and ongoing European and international projects are well identified and described. Furthermore, the proposal explains well why a further COST Action in this topic is relevant, since further disciplines are involved. Interdisciplinary tasks are proposed and can be taken on through a diverse team with experts from business as well as technical expert. Especially regulatory questions as well as societal norms and ethical considerations are well included into the network's objectives and group composition. Therefore, added value in relation to existing projects is apparent. The proposal provides a comprehensive, multidisciplinary, and future-oriented roadmap for advancements in the field of finance and technology. It not only builds upon but significantly extends the existing body of work, targeting a balanced, actionable, and forward-looking approach to complex challenges in the financial sector. The proposal details the key differentiators and added value of the project in accordance with the project objectives. The proposal also provides an overview of European projects that are focused on similar goals to the proposed project. The work brings people from different majors and countries. It can create common policies for the digitalization of finance and can contributes to possibly other areas in the future.	5

Added value of networking in Impact

Q5 - Does the proposed network contain, or present a credible plan for securing, the critical mass and expertise for achieving the objectives and thus addressing the challenge?	Mark
The proposal addresses this question in a very good manner. Main strengths: The proposed participants come from various groups which aim to work interdisciplinary. The proposal lists regulators, researchers within AI and data privacy and economic and financial experts. Also, the variation in economic backgrounds of participating countries, cultural and social differences are highlighted. This aims towards a broad team where geographical diversity is given. The proposed network contains a credible plan for securing, the critical mass and expertise for achieving the objectives and thus addressing the challenge. The team brings together a wide array of scientific disciplines including computer science, finance, cybersecurity, data privacy, artificial intelligence, regulatory compliance, sustainability studies, ethics, user experience design, algorithmic development, socio-economic studies, legal studies, and cross-cultural communication. The scientific fields required for the work enable the study to be carried out. Additionally, the timeline is realistic and appropriate. The proposal would benefit from certain improvements: The challenge of how to coordinate such a diverse team is not addressed. Participants with different professional and geographical backgrounds need to be coordinated and motivated, ensuring a safe and fruitful exchange of ideas and collaboration. Also, critical mass is seemingly reached, but a further explanation on that is missing. The lists of research subjects and areas, from which professionals shall be brought together is not consistent throughout the proposal. Despite the	4

wide geography of participants, most of them represent higher education institutions and associated organisations.There is an imbalance in favour of economics, a smaller representation from business enterprise and even smaller from government/intergovernmental representatives.

Q6 - Does the proposal identify the most relevant stakeholders and present a clear plan to involve them as Action's participants?	Mark
The proposal addresses this question in an excellent manner. Main strengths: All relevant stakeholders are identified and are already onboarded to support this proposal. A Stakeholder Involvement Plan is given, covering main steps within the project duration. The proposal identifies the most relevant stakeholders and presents a clear plan to involve them as Action's participants. The proposal identifies the most relevant stakeholders and present a clear plan to involve them as Action's participants. The proposal has a realistic and clear work plan for the achievements.	5

IMPACT

Impact to science, society and competitiveness, and potential for innovation/break-throughs

Q7 - Does the proposal clearly identify relevant and realistic impacts for science, society and/or competitiveness (including potential innovations and/or breakthroughs)?	Mark
The proposal addresses this question in an excellent manner. Main strengths: Impact to science, society and potential breakthroughs are described, detailing long- and short-term outcomes. The short perspectives give realistic insight in the possibility of high scientific impact. Long-term goals and potential breakthroughs are described ambitiously, but a realisation is possible. Europe's research could be strengthened through these breakthroughs in science and technology. The Socioeconomic breakthroughs are based on economic growth through AI and inclusive financial systems which are understandable goals which might lead to lasting chances. The description of socioeconomic impact sounds optimistic.The proposal is directly aligned with Europe's strategic priorities, affirms the goals of leadership in digital innovation, while considering environmental and ethical considerations, emphasizing sustainable digital transformation. The scientific achievements are suitable and realistic to the goal of the work.	5

Measures to maximise impact

Q8 - Does the proposed networking clearly contribute to knowledge creation, transfer of knowledge and career development?	Mark
The proposal addresses this question in a very good manner. Main strengths: Maximizing Impact through knowledge creation is clearly stated and the contribution is realistic. Meeting structures and action for knowledge transfer are described, e.g. PhD training schools and conferences. The career development highlights the skill enhancements and network opportunities. The proposed networking contributes to knowledge creation, transfer of knowledge and career development. Measures to maximize impact are clearly described. The proposal would benefit from certain improvements:	4

The transfer of knowledge should have better addressed the collaboration between young and experienced researchers. The diversity of the team should also be considered and strategies stated on how to encourage knowledge transfer between geographical groups. The contribution to career development could be more extensively described. Network opportunities for career developments, which are mentioned, need to be better monitored. The development of soft skills can be further addressed when young researchers shall be supported. Leadership skills should be further developed and team collaboration actively encouraged for continuous improvement.

Q9 - Is the plan for dissemination and/or exploitation of results clear and attainable and does it contribute to the dialogue between science and the general public or policy?	Mark
The proposal addresses this question in an excellent manner. Main strengths: The dissemination plan covers a clear science communication plan which includes a pledge towards transparency, continuous outreach and engagement. The proposers include all relevant dissemination outlets in their description. Highlighted is also the community engagement, which shall be achieved through open labs etc. An exploitation plan is mentioned. Here, further explanations on the development of this plan within the network would be helpful. The proposal expects results that can successfully be exploited.	5

IMPLEMENTATION

Coherence and effectiveness of the work plan

Q10 - Is the work plan (WGs, tasks, activities, timeframe, deliverables and risk analysis) appropriate to ensure the achievement of the objectives?	Mark
The proposal addresses this question in a very good manner. Main strengths: The work plan is well described and includes tasks in each WG, which are adequate for assuring the achievement in each WG. The work plan includes further overall action tasks, covering collaboration, dissemination, compliance and communication tasks. Those are needed to support and reach the objectives of this proposal and fit well into the work plan. Deliverables are stated for each working group, covering outcomes for various tasks. The deliverables are meaningful and allow to measure the overall progress of the action. Risks and contingency measures are well defined, both research coordination objectives and capacity building objectives are listed and potential risks identified. All given contingency measures are suitable. The work plan is appropriate to ensure the achievement of the objectives. The work plan is divided into four specialised WGs and 18 tasks, designed to ensure alignment with the research coordination and capacity-building objectives. The results are expected to make a significant contribution to the fields of data privacy, generative AI, XAI, and sustainable digital finance, and sustainable. The main risks associated with the work plan are identified and the contingency plan should ensure that the objectives of the proposed Action are achieved. A graphical illustration of the Gant chart for various activities, tasks and results in accordance with the management structure of the proposed event is provided. We believe that the work plan is convenient for the accomplishment of the objectives in terms of timeframe, tasks, WGs, activities, and risk analysis. The proposal would benefit from certain improvements: Although the overall description is designed appropriately, some important information is missing: the description of deliverables does not include a specific timeframe for each deliverable and some milestones are missing. It remains unclear when control points are set and which information or outcome shall be achieved at which time; - it is unclear how to distinguish between some tasks.	4

SELECTION

COMMENT OF THE SCIENTIFIC COMMITTEE

SC	To comply with the COST Excellence and Inclusiveness Policy, in the implementation of the Action: - the level of involvement of Inclusiveness Target Countries (ITCs) should be maintained and the plans described in the proposal for ensuring ITC involvement should be implemented; - the level of involvement of Young Researchers and Innovators (YRIs) should be increased and the plans described in the proposal for ensuring YRI involvement should be implemented; - the gender balance should be maintained and the plans described in the proposal for ensuring gender balance should be implemented.