# EXPLAINABILITY 2024

# Forward

The First International Conference on Systems Explainability (EXPLAINABILITY 2024), held on November 17-21, 2024 in Valencia, Spain, inaugurates a series of events dealing with models and metrics to build a documented and provable trust for the developers and users of any kind of system. Explainability helps to validate tracking between system design requirements and current implementation ensuring validation of evolving properties by continuously learning and adapting the original requirements.

Interpretability, Explainability, and Understandability are characteristics needed for any product, system, device, government regulation, or societal law to increase their trustfulness and acceptability by the end-users. Their role is to avoid bias and increase confidence in the systems' output.

Explainability favors interpretability and understandability and should be considered during the requirements, design, deployment and maintenance phases of all software, hardware, and complex systems. To a large extent, explainability is present as a user manual, software requirements tracking and code identification, validation/testing results, interactive interfaces, explanation of models, guidelines for industrial robots, and in any human-driven procedural processes. Desiderata on explainability become more complex for Artificial Intelligence (AI)-based entities/systems in terms of 'thinking' via internal mechanisms and accepting/trusting the output.

Explainability is a sought-after property of any complex 'products'. In AI-based systems, the explanation of the behavior of models for certain critical systems is mandatory. This is a complex task, considering that the behavior is the result of intricate development processes involving humans, algorithms, datasets, and other artificial entities (tools).

This conference was very competitive in its selection process and very well perceived by the international community. As such, it attracted excellent contributions and active participation from all over the world. We were very pleased to receive a large amount of top quality contributions.

We take here the opportunity to warmly thank all the members of the EXPLAINABILITY 2024 technical program committee as well as the numerous reviewers. The creation of such a broad and high quality conference program would not have been possible without their involvement. We also kindly thank all the authors that dedicated much of their time and efforts to contribute to the EXPLAINABILITY 2024. We truly believe that thanks to all these efforts, the final conference program consists of top quality contributions.

This event could also not have been a reality without the support of many individuals, organizations and sponsors. We also gratefully thank the members of the EXPLAINABILITY 2024 organizing committee for their help in handling the logistics and for their work that is making this professional meeting a success.

We hope the EXPLAINABILITY 2024 was a successful international forum for the exchange of ideas and results between academia and industry and to promote further progress in system explainability research. We also hope that Valencia provided a pleasant environment during the conference and everyone saved some time for exploring this beautiful city

**EXPLAINABILITY 2024 Steering Committee**

Thomas Fehlmann, Euro Project Office AG, Zurich, Switzerland

Mahdi Jalili, RMIT University, Australia
Fairouz D Kamareddine, Heriot-Watt University, Scotland

**EXPLAINABILITY 2024 Publicity Chair**

Francisco Javier Díaz Blasco, Universitat Politecnica de Valencia, Spain
Ali Ahmad, Universitat Politecnica de Valencia, Spain