Plan for the involvement of external stakeholders interests in the results of the Action.

This plan is not yet released. Its first iteration will be released by the end of January 2021. The formal release and documentation of the plan have been postponed to a project phase that allows a better characterization of the action with respect to the stakeholders. The covid pandemics has contributed to further delays.

Objectives

G2net objectives have a potentially disruptive scientific and technological impact, as they address common issues affecting Machine Learning (ML) and Deep Learning (DL) methods application to physical systems as they gather common challenges coming from Gravitational Waves (GWs) detection, Geophysics and Robotics. Should we cope with our common challenges, the interest of external stakeholders from Industry, Business and Research community would be extremely high. We are creating a common interdisciplinary area that has a potential to improve dramatically the applicability of ML and DL in a wide range of research (those of the action, but also proteomics, biomechanics, neurophysiology, neuroscience, life science in general, etc.) and application fields (environmental and geological monitoring, robotics, but also production logistics, water management, healthcare, medicine, medical imaging etc.).

However, it is necessary that this new common area of research is well identified and its main characteristics are made well *readable* by external stakeholders.

The general objectives of the plan for the involvement of the stakeholders are:

- GO1: Represent the core objectives of the action and its results by an interdisciplinary scientifically rigorous and clearly understandable by researchers active in other scientific fields, technologists, business people, policy makers and the general public, as they become available.
- GO2: Identify proper message content, formats and tools to reach the different categories of stakeholders.
- GO3: Contact in the appropriate ways key players to facilitate the various categories of stakeholders.

Planned Actions

The planned Tasks articulate over the time frame of G2net action the activities to carry out to achieve the objectives.

- T1: Represent the core objectives of the action and its results by an interdisciplinary scientifically rigorous and clearly understandable by researchers active in other scientific fields, technologists, business people, policy makers and the general public, as they become available: this is the most crucial activity of G2net itself. The initial common research ground definition has been achieved after the first two years of G2net action and will be continuously refined until its end and beyond.
- T2: Identify proper message content, formats and tools to reach the different categories of stakeholders: this action will follow the initial definition of the scientific common ground of

the issue. A first draft that will be continuously refined until G2net end and beyond will be available by ending of June 2021.

- T3:Contact in the appropriate ways key players to facilitate the various categories of stakeholders: this activity has been already started where possible and appropriate and will accelerate and become well structured when T2 initial results will be achieved.

Results so far

T1: An initial definition of a common language and problem set has been achieved by the end of M24.
G2net has been actively working on diversifying its research objectives. One of the results could also be seen in the Center for Artificial Intelligence and Cybersecurity AIRI (airi.uniri.hr) which was established by our members from University of Rijeka. AIRI is a trans-disciplinary research center focusing on AI and its use in different fields, including those relevant to the Project's objectives. The AIRI has extensive experience in performing scientific research in various areas relevant to this Project (e.g., signal/data analysis, cybersecurity of maritime ICT systems, embedded systems for 3D perception, high-performance computing, river-sea interaction in the context of climate change, legal aspects of digital transformation, etc.). These projects were funded from numerous national and EU sources, as well as by cooperation with industry. In line with its expertise, AIRI's role within this Project is focused on data analysis (signal processing, statistical and/or machine learning-based data analysis) and interpretation of the obtained results for the purposes of system optimizations.

T2: The related activities will be initially formalized by ending of June 2021.

T3: We have already established some contacts with companies and other research groups out of the fields involved in our G2net Action. We had contacted the international company Capgemini through its Spanish branch [https://www.capgemini.com/es-es/], and in particular through a person of the subcenter of Capgemini in Valencia (Spain), Raúl Montero Jordá. We have also contacted the Image Processing Laboratory [https://ipl.uv.es/] of the Scientific Parc of the University of Valencia (Spain), through the researcher Gustau Camps-Valls who was part of the team which recently got a ERC Synergy Grant on Understanding and Modeling the Earth System with Machine Learning. We wanted to invite these contacts to a dissemination day, so we could all have presented the projects of the different groups and started potential collaborations. This dissemination day had to be canceled due to the global pandemic, and we hope to be able to organize it in the near future (in person or virtually).

We are in touch with Amazon Web Services to explore to which extent they could support (discounts or storage/computation resources or in kind resources) the establishment of a Cloud Data Lab that could help remote cooperation also without physical movement of the people (during and after the pandemics) We plan to investigate also other possibilities with other suppliers.

We are already in contact with NVIDIA. A mixed group, leaded by Elena Cuoco, G2net Action chair, participated to a call with NVIDIA researcher for DL for GW Stochastic Background Detection on HPC solution at CINECA (Italy). The group is composed of members from 4 different countries: the Netherlands, Italy, France and Poland, with many ECIs and 2 senior scientists. The team has won a grant with 30000 standard hours budget and 1024 Work Quote in GB.