Science Communication Plan of the COST Action CA24136

Each Action MC shall adopt a Science Communication Plan including a communication, dissemination, and valorisation strategy, as well as a plan to implement this strategy. The Science Communication Plan shall reflect the MoU in particular connecting to the aims and objectives of the Action. It is recommended that the Science Communication Plan is approved by the Management Committee not later than 6 months after the start date of the Action. It is recommended that the Science Communication Plan, including progress on implementation, is discussed on a yearly basis by the Action MC and reviewed or amended where necessary. *(Annotated Rules for COST Actions, article 5)*

This template is provided to COST Actions as a support for developing the Action Science Communication plan. Actions can adapt the plan structure and content according to their needs.

Versions and history of changes

Version	Date of adoption by MC	Notes (e.g. changes from previous versions)	Lead author(s)*

** The Science Communication plan is developed, updated and its implementation monitored under the overall supervision of the Science Communication Coordinator, and in close collaboration with other relevant contributors.*

This document is based upon work from COST Action CA24136, supported by COST (European Cooperation in Science and Technology).

COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

1. SUMMARY

The Science Communication Plan for the InterCoML Action (CA24136) outlines the strategy to communicate, disseminate, and valorise the network's efforts in fostering the interaction between Control Theory (CT) and Machine Learning (ML). While ML offers powerful data-driven tools and computational algorithms, CT provides mathematical rigor, stability, and reliability guarantees. The overall strategy aims to maximize the visibility of this interdisciplinary synergy, combating fragmentation between the ML and CT communities.

Responsibilities within the Action are led by the Science Communication Coordinator (SCC), supported by Working Group 5 (WG5: Sharing & Spreading). WG5 is specifically dedicated to providing communication channels for efficient knowledge transfer among Action members and a wider audience. The Management Committee (MC) and the Core Group will monitor the implementation of this plan.

2. General Aim and Target Audiences

Aim and Specific Objectives: The primary aim of the Science Communication strategy is to raise awareness about the great potential - theoretical and applicative - that can be released by exploiting the deep interconnections between Control Theory and Machine Learning. This creates the favourable conditions to reach the ultimate goal of the Action, which is to deploy efficient and mathematically grounded systems. In order to achieve these goals, specific communication and dissemination objectives include - incrementally:

1. Creating a common language between different communities, removing barriers to the communication of knowledge.
2. Establishing communication channels for a dynamic overview of the state of the art, including new open questions and new available results.
3. Communicating insights generated within the Action outside the Action for potential valorisation.

Target Audiences: Our target audiences are segmented into:

- **Specialist Scientific Community:** Mainly researchers in applied mathematics, control engineering, computer science, physics and data science.
- **Research Community:** Researchers in various fields of Academia or Industry (e.g. biologists, chemists, etc).
- **Young Researchers and Innovators:** Master and Ph.D. students, particularly from ITCs and female researchers, seeking for training and career development.
- **Industry & SMEs:** Tech companies, energy sector operators (e.g., smart grids, solar/wind), and healthcare institutions dealing with digital twins and personalised medicine.

- **General Public & Civil Society:** Citizens and policy makers interested in the societal impact of AI and future technologies in automation.

Target-specific objectives:

- **Scientific Community (Specialists, Young Researchers and Innovators):** Bridge the cultural fragmentation to establish an academic value of this synergy. Attract to the area.
- **Industry & SMEs:** highlight commercial viability, build trust in the technology. Explain how the complex algorithmic and theoretical synergies between CT and ML can ensure safety and efficiency.
- **Public:** inspire interest and demystify how real, state-of-the-art systems work.

Channels: Regarding Dissemination, we will focus mainly on the Specialist Scientific Community and the Industry. Regarding Communication, we will mainly target the broader Scientific/Research Community, the Young Researchers, the Industry and the General Public. Regarding Valorisation, we will mainly focus on the Industry and the General Public.

Tools: The Communication, Dissemination and Valorisation to these audiences will be mainly done via the Action Website, the Slack Workspace and the Linkedin page.

3. PLAN FOR THE COMMUNICATION OF ACTION RESULTS

Communication focuses on non-specialist language, is coordinated by WG5 and builds on the following channels:

- **Action Website:** The central hub (Deliverable 2, Y1-Q2) featuring an informal and engaging tool for sharing activities and results. Specifically, the Website contains the items “Activities”, “News” and “Dissemination”. The “Activities” section is a repository of past events (conferences, seminars, missions, visitings, etc) promoted by the Action. The “News” contains a description of future events or calls. And finally “Dissemination” contains a blog with informal but precise reports of the scientific outcomes of the Action for the Scientific and Research Community. The Website further contains a “Jobs” section, in which open positions within the Action network are advertised (mainly academic/research positions). The job offers will be broadcasted on a dedicated channel on Slack. Moreover, there is a dedicated section managed by WG4 for listing the internships offered by the industrial stakeholders (Deliverable 7, Y1-Q3).
- **Social Media:** Mainly LinkedIn, to promote the website content to the General Public. Based on the outcomes of the Action activities, a Youtube channel may be created to upload recorded workshops, lectures, interviews, and Action seminars.
- **Local Media:** Reposting and tagging on social media, advertising the Action through local (e.g. universities, departments) and European (e.g. Cost channels) media to increase awareness of the importance of fundamental research, interviews, and podcasts at university radios.

To communicate the Action results and expertise to a broader audience, the Website will further host:

- **STSM Reports:** Publishing on the Action's Website a blogpost based on the summary reports following each Short-Term Scientific Mission (Deliverable 10).
- **White Papers:** Publishing on the Action's Website a blogpost based on the final reports of each WG 1-4 (Deliverable 11, Y4-Q4).

Timeline:

- *Y1-Q1:* Launch of the Action Website (already online) and LinkedIn page (already done).
- *Continuously:* Website updates, Social/Local Media posts.

4. PLAN FOR THE DISSEMINATION OF ACTION RESULTS

Dissemination targets the Scientific and Research Communities, and the Young Researchers and Innovators, using specialist language. Dissemination is managed by the SCC and WG5, in close collaboration with the thematic WGs (1-4). The main platforms for interaction in this context are: a dedicated Slack Workspace, with suitable public and private channels; the combination of Website and Social Media, to promote the following dissemination products.

- **Conferences:** Conferences organized by the Action, featuring keynote talks, contributed presentations and poster sessions (e.g. https://coml26.utia.cas.cz/; 27-30 April 2026, Prague). The contributions presented at these venues will be collected in books of abstracts, in line with Deliverable 9. The Action members will also participate in established control and ML conferences with workshops and mini-symposia (e.g., CDC, ECC, ICML).
- **Training Schools & Workshops:** Online workshops (e.g. kickoff meetings of WG2, 05 December 2025; WG3, 12 December 2025; WG1, 16 January 2026) and participation in thematic workshops-summer schools (e.g. *XI Workshop-Summer School 2026, Partial differential equations, optimal design and numerics*).
- **Action Seminars:** Launching a regular online Action seminar series (Deliverable 4, Y1-Q2) featuring both Action members and invited external speakers. The seminars will be held with a cadence of 3 weeks and advertised to the Action members on a dedicated channel in Slack (besides Linkedin and Webmail). The Action members are advised to circulate the link of the seminar in their research community (word-of-mouth). The list of previous seminars will be collected on the Website for public record.
- **Publications:** Publishing scientific articles in high-level journals and conferences. Publications benefiting from the activity of InterCoML will acknowledge the Action, based on the template available on the Action's Website. The Website further contains materials to clearly identify the Action's members and contributions (visual identity: Logo, colors, template for presentations). Moreover, twice a year WG5 will search publications acknowledging the Action via tools like WebOfScience, Scopus and Dimensions.ai in order to collect the DOIs and list them on the Website. This

has the goal of giving visibility to such articles and the benefits of participating in InterCoML, within the Action and beyond.
- **Open Problems List:** Maintaining a list of open problems for Master/Ph.D. students and Young Researchers (Deliverable 6, Y1-Q3), to be prepared within the Slack WG channels, and posted on the Website in its final form. Moreover, the list will be advertised via the WG members channels on Slack.

Approach to Open Science: InterCoML is committed to open science. WG4 will establish a public repository (on GitHub or a similar platform) for data, coding, and programs generated by WG1-WG3, strictly in accordance with FAIR data principles (Deliverable 5, Y1-Q2).

Slack Workspace Management: Upon acceptance to the Action, new members will receive a link to join the workspace, in a welcoming e-mail. People not joining on Slack will be further contacted by WG5 members. Once in there, the Action members will be able to join the WG channels of their interest. Besides that, they will be added to general-purpose channels, dedicated to themes of public interest (seminars, paper-sharing, job-offers, social). Slack further allows communication between individuals or small groups, making it an effective tool to handle internal discussions, in a forum-like fashion (Deliverable 3, Y1-Q2).

Timeline:

- *Y1-Q1:* Launch of the Action Website (already online). Creation of the Slack workspace (already done).
- *Continuously:* Slack management, Social Media updates, blogposts, and seminars.

5. PLAN FOR THE VALORISATION OF ACTION RESULTS

Valorisation ensures that the theoretical synergies between Control Theory (CT) and Machine Learning (ML) are effectively translated into practical, commercial, and societal implementations.

Valorisation is primarily driven by Working Group 4 (WG4: Transformational activities) with the support of WG5, and serves as the bridge between academic theory and real-world application. Rather than remaining purely theoretical, the Action targets concrete breakthroughs in several key societal challenges:

- **Energy Systems:** Developing robust, sustainable, and data-driven control mechanisms for smart houses, modern power grids, and combined gas and steam power plants.
- **Healthcare & Personalised Medicine:** The systematic construction of digital twins (e.g., cardiac digital twins) using ML algorithms for faster, more accurate diagnostics and tailored treatments.
- **Advanced Engineering:** Prolonging the life-cycles of materials, and advancing cutting-edge fields like soft robotics and autonomous vehicles.

To achieve these outcomes and ensure continuous knowledge transfer to industry, policymakers, and the scientific community, the Action will deploy the following strategies, which will be broadcasted on all the previously described channels:

- **Hackathon:** To engage the industrial stakeholders, WG4, in collaboration with WG5, will organise a hackathon involving Action members and companies (expected for spring 2027, Milan).
- **Open-Source Software Repository:** To make Action results a common good, WG4 will establish a public repository (e.g., on GitHub) hosting data, coding, and programs generated by the research WGs. This repository will strictly adhere to FAIR data principles (Deliverable 5, Y1-Q2).
- **Applications Library:** We will create and maintain a dynamic library of possible applications suggested by our industrial partners and participants (Deliverable 8, Y1-Q4). This ensures the research remains anchored to real-world industrial needs.
- **Industry Internships:** The Action has established a dedicated space on the Website offering industry-related internships to Master and Ph.D. students (Deliverable 7, Y1-Q3).
- **Training Materials & White Papers:** To promote the adoption of software solutions by external stakeholders, the Action will develop comprehensive documentation, tutorials, and case studies. Final theoretical and practical insights will be published as white papers for WGs 1-4 (Deliverable 11, Y4-Q4) and as a collection of survey articles (Deliverable 12, Y4-Q4).
- **Open Problems & Visibility:** A continuously updated list of open research problems will be maintained and offered to Young Researchers and Innovators (Deliverable 6, Y1-Q3). This will be supported by the Action's Slack workspace and Website to ensure high visibility of ongoing research needs.

The communication and dissemination channels will serve as infrastructure for further collaboration beyond the Action duration, e.g., for joint grant applications or patents.

(Note: Data protection and IPR should be detailed further based on specific MC decisions regarding the open-source repository and industrial partnerships).