



# AI4CYBER NEWSLETTER

Edition 1, No. 1

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## AI4CYBER in a nutshell

Launched in September 2022, AI4CYBER is an EU-funded research project under Horizon Europe (GA ID: 101070450) which brings together 13 partners from 7 EU Member States to develop and test smart cybersecurity services leveraging AI and Big Data. The AI4CYBER ecosystem framework will bring together 11 AI-based services from different cybersecurity areas.

AI4CYBER aims to enhance the security and resilience of critical systems against advanced and AI-powered cyberattacks. It plans to do so by advancing the existing state-of-the-art AI techniques to create specialised solutions for testing, detection and threat intelligence and integrate them in one framework that will be evaluated by end-users and adjusted based on their feedback.



«After the first year of the project, the AI4CYBER Team is consolidated, and the common vision, work objectives and procedures are established. The team is currently working hard to develop a solution that shows how Artificial Intelligence can help in building cyber resilience, and doing so in a trustworthy manner.»

- Erkuden Rios, Project Manager, TECNALIA

## AI4CYBER Stakeholders

- Operators of critical systems that have been identified under the NIS2 Directive 2022/2555 as essential or important services and called to provide a high level of cybersecurity. AI4CYBER services will leverage AI to facilitate, automate and improve the efficiency of their work.
- Cybersecurity solution providers that can integrate the AI4CYBER solutions to their services and provide more competitive tools into the market.
- The scientific community that can use the research undertaken by the AI4CYBER consortium regarding advanced and AI-powered cyberattacks to progress its own work.



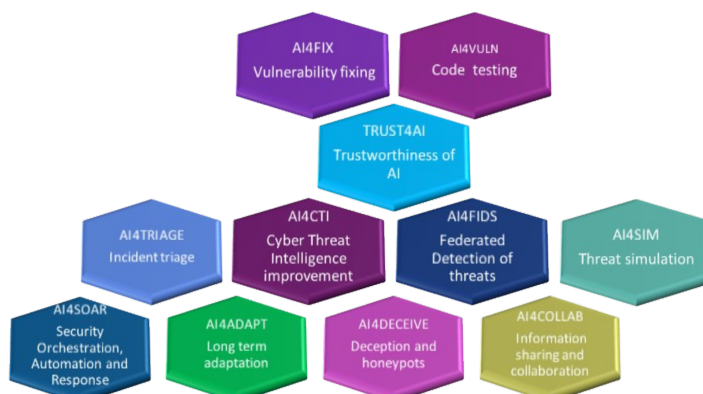
## Events

- ELECTRON “Energy Crisis & Cybersecurity” event (5-7/12/22, Baku)
- PRECINCT Conference (16-17/05/23, Brussels)
- CyberEPES Cluster Meeting (25/05/23, online)
- ENCRYPT Workshop for clustering and collaboration activities (1/06/23, online)
- 2023 IEEE EPES-SPR Workshop (31/07-02/08/23, Venice)
- ARES 2023 STAM Workshop (29/08-01/09/23)
- EU-CIP/ECSCI Cluster Conference (20-21/09/23, Brussels)
- ECSCI SPM Workshop (5/12/23, online)

## Creating the AI4CYBER Framework

During the first year of the project, the AI4CYBER Consortium has conducted research on leveraging Artificial Intelligence to enable cutting-edge security capabilities of critical infrastructures. The use cases of the project have been thoroughly analysed and their cyber resilience requirements defined. The multi-viewpoint architecture of the AI4CYBER Framework has been specified together with the usage scenarios for each of the components. Therefore, the baseline for starting the development of the components is now ready.

With the state-of-the-art analysis for each of the 11 key results of the project completed, the technology partners are currently developing the algorithms and methods of the components. The plan for their evaluation in the use cases has also been finalised, and the end-users are currently integrating the early proofs-of-concept into their testbeds.



## AI4CYBER Dissemination, Communication, Networking and Exploitation

In the first 12 months of the project, AI4CYBER partners have determined and began implementing their Dissemination, Communication, Networking and Exploitation Strategy towards the identified stakeholder groups. As a first step, the consortium set up the project social media and branding guidelines and continued with presentations of the project at external events, participation in EU-funded project clusters and organisation of a first workshop. An overview of all our activities can be found in the [news](#) and [blog](#) sections of our website. To further stress the project's impact, AI4CYBER was invited and participated in the evaluation study by DG RTD on Resilient Europe.



In parallel, partners have identified 4 phases for the exploitation of the framework. The work has already started and a first Exploitation Workshop place in the 2nd plenary meeting in Lisbon.



## AI4CYBER Workshop on Cybersecurity datasets

During the PRECINCT project Conference on 16-17 May 2023, the AI4CYBER project organised a workshop session on "Cybersecurity Datasets: Challenges and Opportunities". The workshop was led by AI4CYBER coordinator Dr. Erkuden Rios (TECNALIA) and was attended by 18 participants, including AI4CYBER partners Montimage, Search Lab and EOS. All participants actively joined the discussions and exchanged views on the difficulties and opportunities of using and sharing cybersecurity related datasets for cybersecurity research and cybersecurity solution development.


AI4CYBER partners have come across certain challenges around this issue in their research which led to the development of this workshop. In particular, when using models and algorithms to develop AI-based cybersecurity solutions, the learning requires big amounts of well-structured and sanitized data which are sometimes difficult to get. The discussion showed that other researchers also faced similar issues and that there is a need to incentivise the sharing of cybersecurity data with projects that can contribute to the security and resilience of infrastructures.

All participants agreed that there are significant barriers to cybersecurity research today, with lack of trust, confidentiality and secrecy being the most common ones. There is a culture of 'cybersecurity by obscurity' which has pros and cons for the community. More groundwork is required towards showcasing the value of EU projects researching on cybersecurity solution development and, by extension, there is a need of quality data for cybersecurity research. A detailed summary of the workshop is available on our website [here](#).

## AI4CYBER Consortium



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